Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Implementation

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Special Meeting on Carbon Financing for Rural Development
Philippine Coconut Authority (PCA) Auditorium
06 July 2026

Outline of Presentation

- Beyond GDP
- The PENCAS Act
- Current Efforts on Natural Capital Accounting
- Ways Forward

Beyond GDP

“Now is the time to correct a glaring blind spot in how we measure economic prosperity and progress. When profits come at the expense of people and our planet, we are left with an incomplete picture of the true cost of economic growth.”

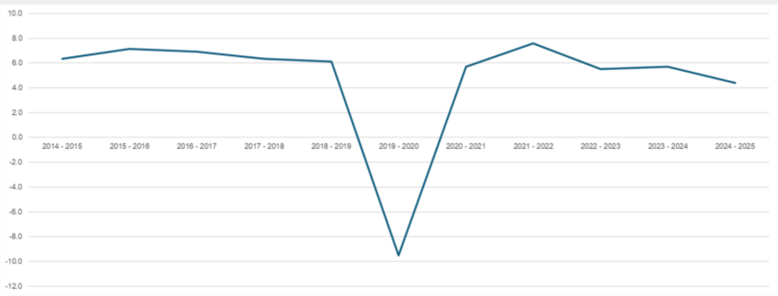
United Nations Secretary-General Antonio Guterres,
Our Common Agenda: Report of the Secretary-General

Planet: GDP does not account for air pollution, natural resource depletion, environmental degradation and biodiversity loss.

Rather, these negative externalities often drive increases in GDP without consideration of the broader, longer-term socioeconomic and environmental damage involved.

Source: https://unsceb.org/topics/beyond-gdp

Gross Domestic Product (GDP)
(Year-on-Year Growth Rates, In Percent)
At Constant 2018 Prices



Major Industries (Full Year 2025)
(Year-on-Year Growth Rates, In Percent)
At Constant 2018 Prices

Source: https://environmentalchange.ed.ac.uk/sustainable-development-goals

Measuring Natural Capital

Natural Capital

- Stock of **renewable and non-renewable resources** that provide flow of benefits to people
- Includes **ecosystem services** that are often “invisible” to most people
- A **key component of the country’s wealth**, affecting long-term income and growth and sustaining a well-functioning economy

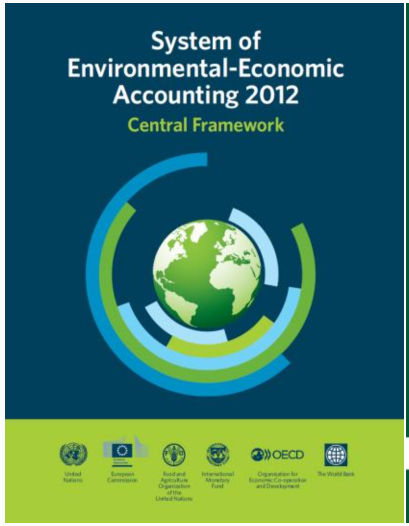
Economic growth requires the environment to sustain ecosystem services that provide subsistence and livelihood for resource-dependent communities and capital for infrastructure, machinery, manufacturing, and production sectors.

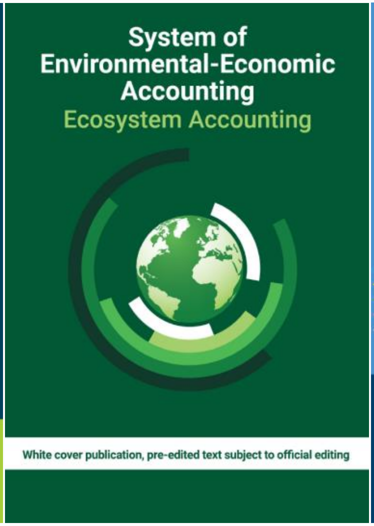
Natural Capital Accounting

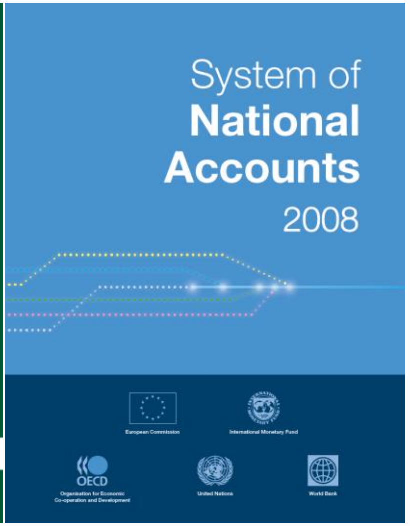
A **tool** that **measures changes in the stock of natural capital** and **integrates the value of ecosystem services** into accounting and reporting systems for a given region or ecosystem.

NCA provides **accounting frameworks** to **“put together”** dispersed environmental data and integrate them with conventional income accounts.

NCA Frameworks







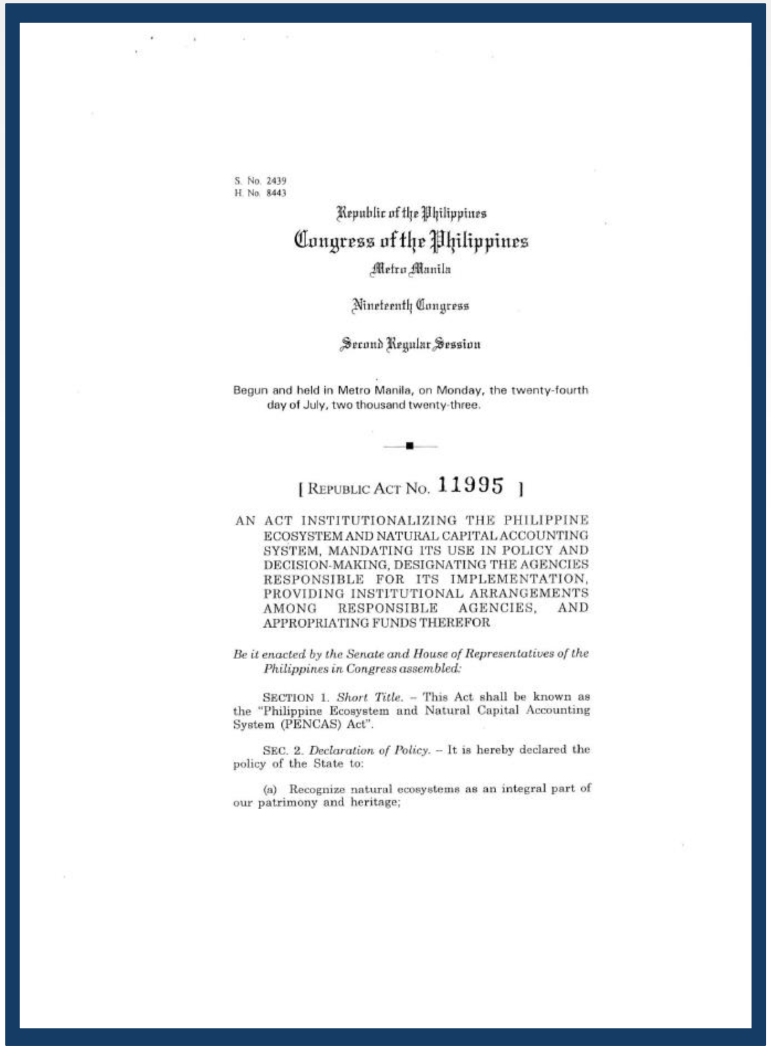
The PENCAS Act

Definition. Milestones

The Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act

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, and **appropriating funds** therefor.

Signed into law last **22 May 2024**.



S. No. 2439
H. No. 8443

Republic of the Philippines
Congress of the Philippines
Metro Manila

Nineteenth Congress

Second Regular Session

Begun and held in Metro Manila, on Monday, the twenty-fourth day of July, two thousand twenty-three.

[REPUBLIC ACT NO. 11995]

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

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

SECTION 1. *Short Title.* – This Act shall be known as the "Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act".

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

(a) Recognize natural ecosystems as an integral part of our patrimony and heritage;

Milestones of PENCAS Act IRR

26 June 2024
Creation of the PSA Internal TWG-PENCAS

01 August 2024
First Meeting of the PSA Internal TWG on PENCAS

25 September 2024
Zero draft of the PENCAS IRR

14 October 2024
Zero draft sent to TWG NCA

04 November 2024
NEDA provided comments on the zero draft

31 January 2025
DENR provided consolidated comments on the zero draft

17 to 19 February 2025
Internal Consultation with PSA PENCAS TWG, RDs, and SMDs

24 to 26 February 2025
Consultation Workshop with TWG-NCA, IACENRS, and IAWG

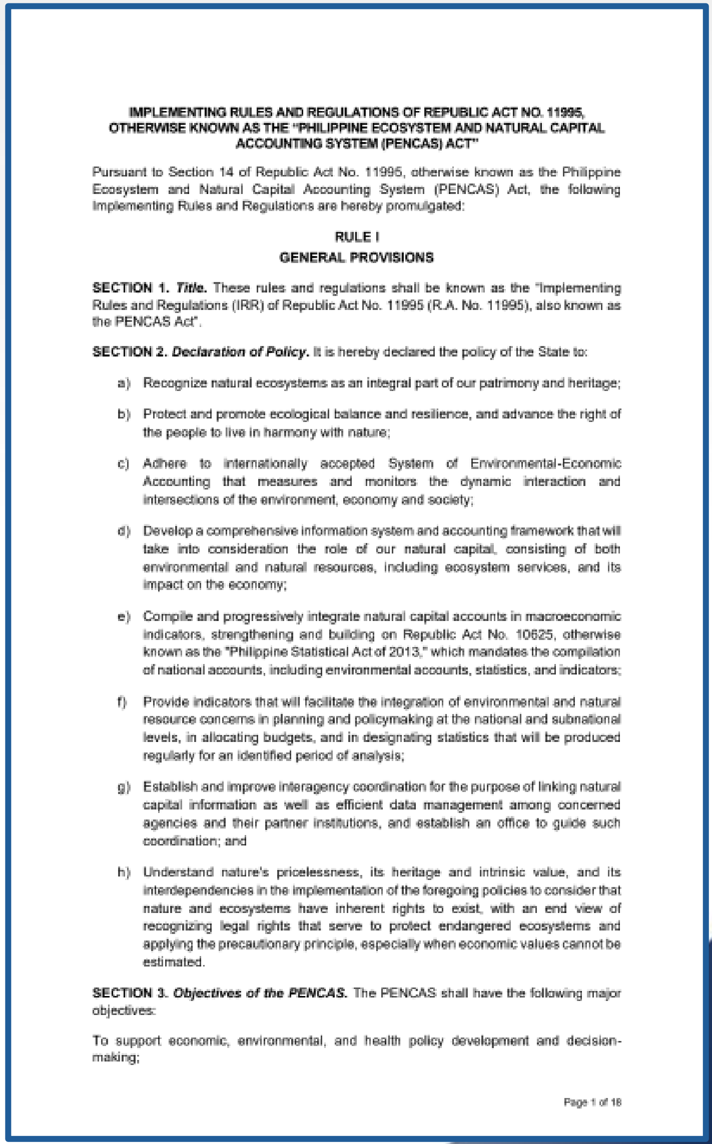
11 to 13 March 2025
Visayas Cluster Consultative Workshop

Milestones of PENCAS Act IRR

1. **25 to 27 March 2025** Mindanao Cluster Consultative Workshop
2. **02 to 04 April 2025** Luzon Cluster Consultative Workshop
3. **07 to 14 April 2025** Finalization and Routing of PENCAS IRR
4. **30 April 2025** Final Draft of the IRR formally sent to agencies
5. **05 May 2025** Submission of Final Comments from the Agencies on the Draft IRR
6. **14 May 2025** Meeting with PSA Internal TWG on PENCAS
7. **22 May 2025** Ceremonial Signing
8. **17 October 2025** Publication in a newspaper of general circulation
9. **12 January 2026** Publication on Official Gazette

Implementing Rules and Regulations of PENCAS Act

Objectives. Rules III, IV, V, and XI



IMPLEMENTING RULES AND REGULATIONS OF REPUBLIC ACT NO. 11995, OTHERWISE KNOWN AS THE "PHILIPPINE ECOSYSTEM AND NATURAL CAPITAL ACCOUNTING SYSTEM (PENCAS) ACT"

Pursuant to Section 14 of Republic Act No. 11995, otherwise known as the Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act, the following Implementing Rules and Regulations are hereby promulgated:

RULE I

GENERAL PROVISIONS

SECTION 1. ***Title.*** These rules and regulations shall be known as the "Implementing Rules and Regulations (IRR) of Republic Act No. 11995 (R.A. No. 11995), also known as the PENCAS Act".

SECTION 2. ***Declaration of Policy.*** It is hereby declared the policy of the State to:

a) Recognize natural ecosystems as an integral part of our patrimony and heritage;

b) Protect and promote ecological balance and resilience, and advance the right of the people to live in harmony with nature;

c) Adhere to internationally accepted System of Environmental-Economic Accounting that measures and monitors the dynamic interaction and intersections of the environment, economy and society;

d) Develop a comprehensive information system and accounting framework that will take into consideration the role of our natural capital, consisting of both environmental and natural resources, including ecosystem services, and its impact on the economy;

e) Compile and progressively integrate natural capital accounts in macroeconomic indicators, strengthening and building on Republic Act No. 10625, otherwise known as the "Philippine Statistical Act of 2013," which mandates the compilation of national accounts, including environmental accounts, statistics, and indicators;

f) Provide indicators that will facilitate the integration of environmental and natural resource concerns in planning and policymaking at the national and subnational levels, in allocating budgets, and in designating statistics that will be produced regularly for an identified period of analysis;

g) Establish and improve interagency coordination for the purpose of linking natural capital information as well as efficient data management among concerned agencies and their partner institutions, and establish an office to guide such coordination; and

h) Understand nature's pricelessness, its heritage and intrinsic value, and its interdependencies in the implementation of the foregoing policies to consider that nature and ecosystems have inherent 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.

SECTION 3. ***Objectives of the PENCAS.*** The PENCAS shall have the following major objectives:

To support economic, environmental, and health policy development and decision-making;

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Objectives of the PENCAS

- Support economic and environmental policy development and decision-making;
- Provide a system for the collection, compilation, and development of physical and natural capital accounts in the government as a tool for physical and development planning and programming, policy analysis, and decision-making;
- Serve as a comprehensive data framework in the generation of natural capital statistics and accounts towards their progressive integration in macroeconomic indicators;
- Provide tools and measures that contribute to the protection, conservation, and restoration of ecosystems; and
- Provide valuation of ecosystem services such as provisioning, regulating and maintenance, and cultural services.

Rule III: Section 1

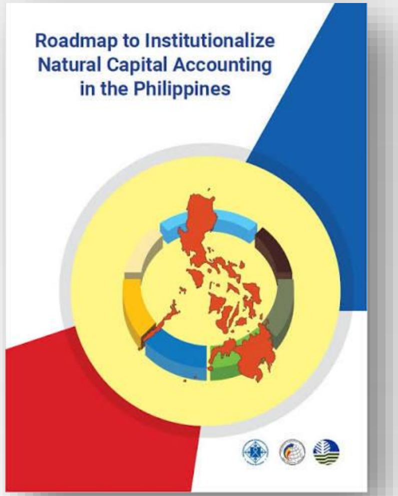
Institutionalization of PENCAS. The PENCAS is institutionalized within the government bureaucracy to mandate its use in policy and decision-making, designate agencies responsible for its implementation, and provide institutional arrangements among agencies.

Rule III: Section 3

PENCAS Framework. A Natural Capital Accounting (NCA) framework shall be formulated to guide all concerned agencies and its instrumentalities for implementation. It shall cover the measurement of natural capital consistent with accounting structures, definitions, rules, data standards and clearing protocols set by the IACENRS.

Rule III: Section 4

Natural Capital Accounting Roadmap



The NCA Roadmap shall be periodically reviewed and updated by the IACENRS to reflect sector developments, updated reference manuals, and strategies aligned with national development goals and international commitments.

It shall serve as the basis for PENCAS implementation by identifying NCA activities, timelines, implementation structures, and the roles and responsibilities of agencies under the Act and its IRR.

The **components for the NCA Roadmap** shall consist of, but not limited to, the following:

- Component 1. Development of natural capital and ecosystem accounts
- Component 2. Calculation of NC-adjusted macroeconomic indicators
- Component 3. Policy Use and Application
- Component 4. Data Management System
- Component 5. Capacity Development
- Component 6. Dissemination

Rule III: Section 8

Natural Capital Accounting Information System

Data producers, such as the Department of Agriculture (DA) bureaus, shall:

a) Provide timely data and statistics in accordance with the guidelines in connection with data flow;
b) Know the data requirements (i.e., types of information, frequency of collection, and data format and parameters) of the NCA to ensure that the generated information could feed into the national statistical system; and
c) Adhere to standards and classifications of statistical information to facilitate timely compilation of accounts.

Rule IV: Institutional Arrangement

SECTION 1. The **Philippine Statistics Authority Board** shall oversee the implementation of PENCAS.

SECTION 2. The **Interagency Committee on Environment and Natural Resources Statistics (IACENRS)**, consisting of the **DA** and other agencies, shall support the generation of data required for NCA by concerned agencies. Similar IAC may be established at the regional and provincial levels to coordinate PENCAS activities.

SECTION 3. A **Technical Working Group (TWG) on NCA** shall be created under the IACENRS, chaired by the PSA, with the DENR, DEPDev, and **DA** as members, to coordinate NCA Roadmap implementation, improve data and methods, resolve statistical issues, and align outputs with national goals.

Rule IV: Section 2

Interagency Committee on Environment and Natural Resources Statistics (IACENRS). The IACENRS shall have the following specific functions:

a) Provide support in ensuring that data requirements for NCA are being generated by all concerned agencies;
b) Adopt, implement, monitor, and update on a regular basis the NCA Roadmap;
c) Recommend statistical measures, strategies, and policies for the improvement of NCA and ecosystem statistics and accounts to the PSA Board;
d) Recommend a list of officially designated statistics on natural capital and ecosystem accounts and statistics to the PSA Board and conduct regular monitoring on its implementation, prioritization, and updating; and
e) Clearing protocols and quality checks may be developed to ensure that all the activities are aligned to the SEEA framework.

Rule IV: Section 2

Interagency Committee on Environment and Natural Resources Statistics (IACENRS). The IACENRS shall be composed of the following:

a) Department of Environment and Natural Resources (DENR)
b) Philippine Statistics Authority (PSA)
c) Climate Change Commission (CCC)
d) Department of Economy, Planning, and Development (DEPDev)
e) Department of Agriculture (DA)
f) Department of Science and Technology (DOST)
g) Department of the Interior and Local Government (DILG)
h) Office of Civil Defense (OCD)
i) Department of Energy (DOE)
j) Department of Finance (DOF)

The PSA Environment, Natural Resources, and Ecosystem Accounts Service (ENREAS) shall provide secretariat support to the IACENRS.

Rule V: Section 4

Specific Functions of National Government and other Bureaus on PENCAS

The **Department of Agriculture (DA)**, especially the Bureau of Fisheries and Aquatic Resources (BFAR), the Bureau of Soils and Water Management (BSWM), Philippine Fisheries Development Authority (PFDA), Philippine Rice Research Institute (PRRI), and the **Philippine Coconut Authority (PCA)**, shall assist the PSA and the DENR in the generation and provision of the NCA information relative to agricultural areas, and fisheries and aquatic resources, and shall closely coordinate with and assist the DENR in compiling the associated ecosystem accounts data, particularly in areas where agricultural activities intersect with or impact natural ecosystems.

Clear protocols for data sharing and joint analysis shall be established between the **DA** and the **DENR**, which may be based on the delineation as stipulated under RA 9147 or the Wildlife Resources Act, among others.

Rule V: Section 4.1

4.1 Functions. Specifically, the DA shall perform the following functions:

a) The **BFAR**, in line with its mandate, shall provide support in the creation of data and information on fisheries valuation and accounting. BFAR shall support PSA in the development of methodologies for valuing fisheries resources, collection of data on production and other relevant statistics.

b) The **National Fisheries Research and Development Institute (NFRDI)** shall continue to conduct research and development activities and studies to support the assessment, including the profiling of the status of fish stocks of the country.

c) The **BSWM** shall ensure that NCA is considered to ensure soil fertility and hydrological stocks and services. It shall coordinate with other relevant agencies, such as the DENR, to ensure a holistic approach to assessing and managing soil and water resources within the PENCAS framework.

Rule V: Section 4.2

Within 120 days from the effectivity of this IRR, the DA shall submit proposals for the creation of **natural capital units and additional plantilla positions** to the DBM for review and approval, justifying the need for these resources in relation to the agencies' PENCAS mandates. These proposals should detail the functions, staffing requirements, and budget implications of the proposed units.

Rule XI: Transitory Provision

Agencies shall continue performing their existing mandates and using current environmental accounts, frameworks, and standards until the PSA Board approves updated versions, ensuring no disruption in the collection, production, compilation, analysis, and publication of environment-related statistics.

Meanwhile, the **TWG-NCA** shall prepare a transition plan to gradually integrate all government data systems into an ecosystem and NCA framework, establish roadmap-aligned timelines and deliverables, and implement phased hiring, procurement, and resource allocation to support full implementation of the Act.

Current Mechanism for Compiling Environmental Accounts

Academe | Senate/HOR | Media | LGUs

Policymakers/ Planners/Other Users

DEPDev | DENR | DOE

ENVIRONMENTAL ACCOUNTS

Philippine Statistics Authority
*Department of Environment and Natural Resources**

Data support within PSA

MAS | ESSS | SSSS

Data support from other sources

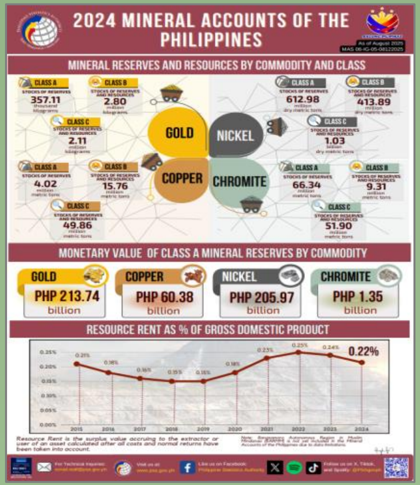
MGB | DOE | FMB | NAMRIA | NWRB | MWSS | LWUA | DA | Manila Water | DOST-PCAARRD | NIA | FAO (AQUASTAT) | BTr | DEPDev | Other Agencies

** Compiler of site-specific ecosystem accounts*

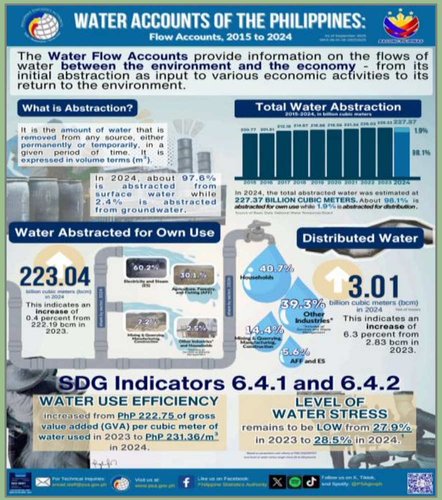
Current Efforts on Natural Capital Accounting

Environmental-Economic Accounts

Regularly Released

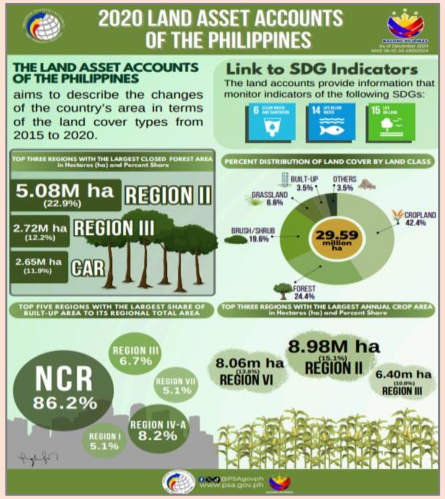


Asset Accounts for Metallic Minerals and Fossil Energy Resources

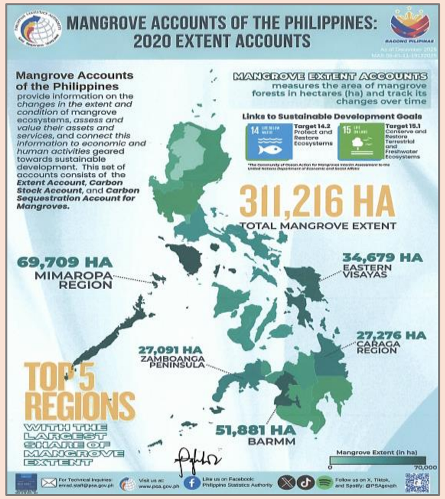


Water Flow Accounts

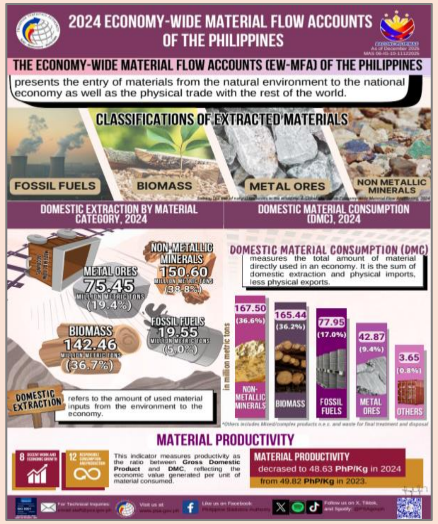
New Outputs



Land Asset Accounts

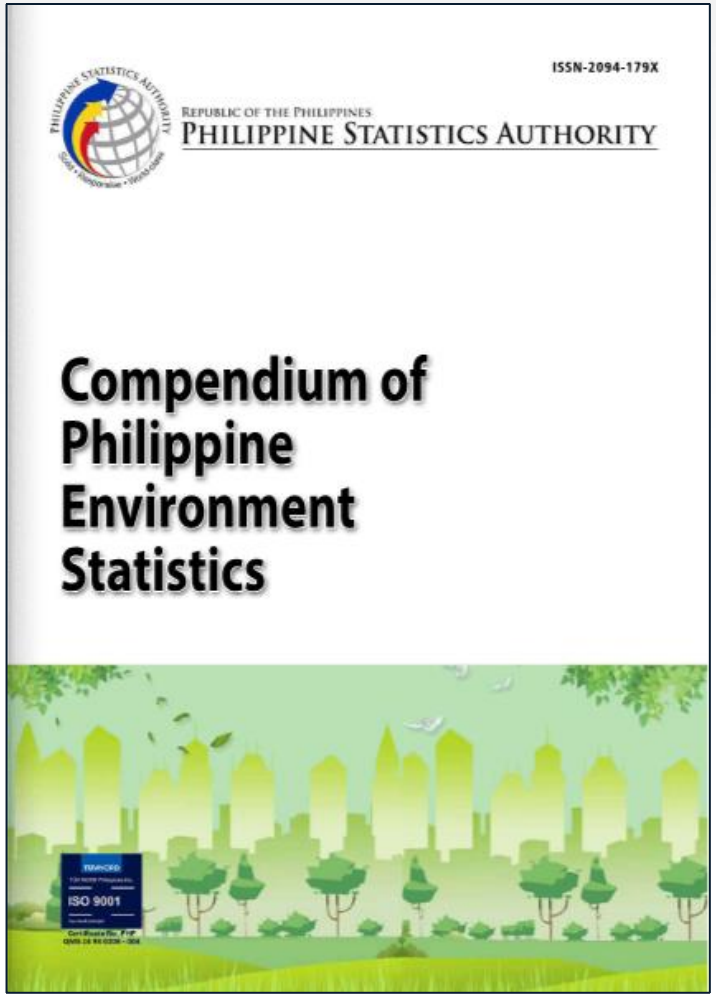


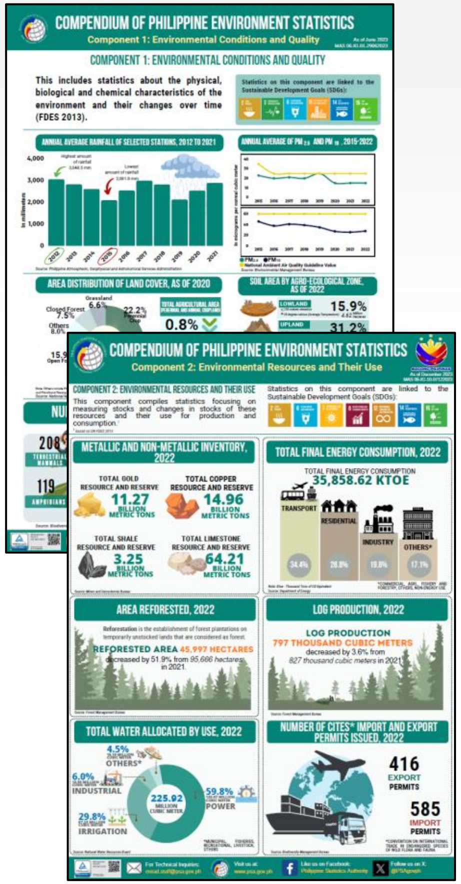
Mangrove Extent Accounts



Economy-Wide Material Flow Accounts

Environment and Climate Change Statistics





Republic of the Philippines
Philippine Statistics Authority

PRESS RELEASE

PSA and World Bank Collaborate to Generate Climate Change Statistics and Indicators in the Philippines

Date of Release: __ April 2025
Reference No. 2025-131

The Philippine Statistics Authority (PSA), in partnership with the World Bank, successfully conducted the Training-Workshop on the Philippine Set of Climate Change Statistics and Indicators (PSCCSI) from 18 to 20 March 2025, at the PSA Headquarters, Quezon City.

OIC-ANS Pascasio with the Participants of the Training-Workshop on Climate Change Statistics and indicators

The training-workshop aimed to identify a set of climate change statistics and indicators specifically tailored to the Philippine context, following the Global Set of Climate Change Statistics and Indicators (GSCCSI) framework. This initiative focused on fostering collaboration among agencies, identifying data gaps, and harmonizing methodologies for compiling climate data.

PSA Complex, East Avenue, Diliman, Quezon City, Philippines 1101
Telephone: (632) 8938-5267
www.psa.gov.ph

Republic of the Philippines
Philippine Statistics Authority

PRESS RELEASE

PSA and UNESCAP Collaborate to Strengthen Statistics for Climate Action through National Dialogue

Date of Release: 06 January 2026
Reference No. 2025-473

The Philippine Statistics Authority (PSA), in partnership with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) successfully conducted the National Dialogue on the Philippine Set of Climate Change Statistics and Indicators from 09 to 11 December 2025 at the PSA Headquarters, East Avenue, Quezon City. This event marks the beginning of a three-year project to implement a whole-of-government approach to produce nationally relevant and multidimensional climate change-related statistics and indicators for climate action.

From Left to Right: CSS Virginia M. Bathan of MAS-ENRAD, ANS Mark C. Pascasio of MAS, DNS Divina Gracia L. del Prado of SSO, PSA Undersecretary Claire Dennis S. Mapa, Ms. Shanta Serrao and Mr. Teerapong Praphotjanaporn of UNESCAP.

The National Dialogue convened government agencies, development partners, and key stakeholders to align on the country's climate change

PSA Complex, East Avenue, Diliman, Quezon City, Philippines 1101
Telephone: (632) 8938-5267
www.psa.gov.ph

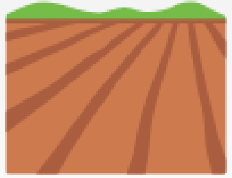
Workshops on the Development of the Philippine Set of Climate Change Statistics and Indicators (PSCCSI)

Other Accounts and Statistics

Developmental Accounts following the SEEA Framework

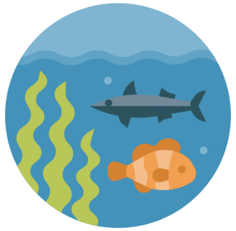

Mangroves


Forest


Land


Non-metallic minerals


Water


Fisheries and Aquatic Resources


Energy


Environmental Protection Expenditure

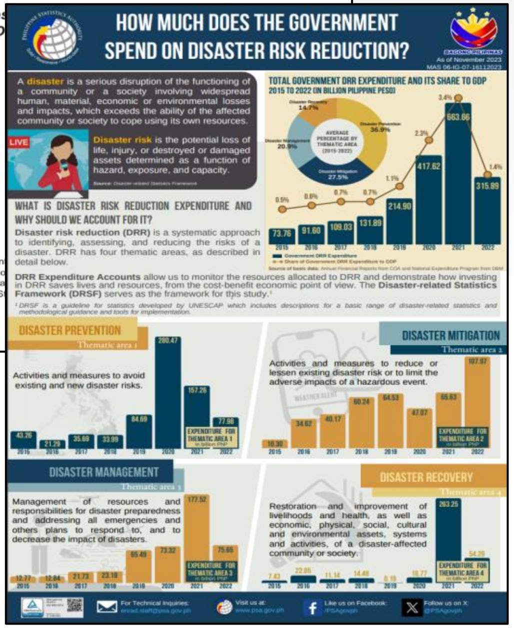


Air and Water Emissions


Solid Waste

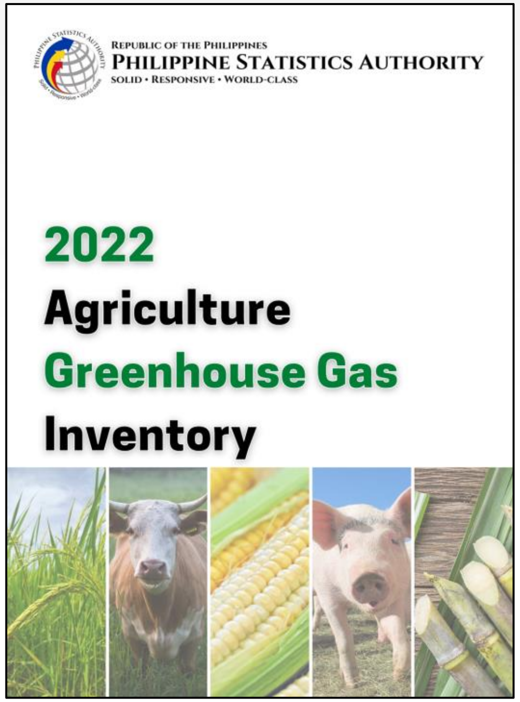

PROGRESS REPORT ON PRIVATE DISASTER RISK REDUCTION EXPENDITURE ACCOUNTS

ASSESSMENT ON THE PRIVATE DISASTER RISK REDUCTION EXPENDITURE ACCOUNTS OF THE PHILIPPINES



Disaster Risk Reduction Expenditure Accounts (Public and Private)

Agriculture GHG Inventories


Republic of the Philippines
Philippine Statistics Authority
Solid • Responsive • World-Class

2022 Agriculture Greenhouse Gas Inventory

18 Regions

are developing and updating their **Regional Environmental Accounts**;

18 Regions

are compiling and updating their **Regional Environment Statistics**

Ways Forward for the PENCAS Implementation

Broaden the composition of the Interagency Committee on Environment and Natural Resource Statistics and the TWG on Natural Capital Accounts.

Strengthening coordination mechanisms among implementing agencies to improve policy coherence, streamline operations, and avoid duplication of efforts.

Establishment of the Environment, Natural Resources, and Ecosystem Accounts Service (ENREAS) and additional manpower in PSA Field Offices.

Development of inter-operable and centralized data systems to improve information sharing.

Continuous capacity building at the regional level for natural capital accounting.

Questions and Clarifications on PENCAS Implementation

https://bit.ly/3Tavrf9

Thank you

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