

**REVIEW OF INTERNATIONAL METHODOLOGIES &
FRAMEWORKS, INSTITUTIONAL ARRANGEMENTS,
AND REGULATIONS RELATING TO NATURAL
CAPITAL ACCOUNTING (NCA) IN VIET NAM**

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EXECUTIVE SUMMARY

Natural Capital Accounting (NCA) represents a paradigm shift in how nations measure economic prosperity by making the value of nature visible in national decision-making. This report provides a comprehensive review of the principal international methodologies underpinning NCA, with particular focus on the three major frameworks developed under the United Nations umbrella: the SEEA Central Framework, SEEA Ecosystem Accounting, and the emerging SEEA Ocean Accounting architecture.

The System of Environmental-Economic Accounting (SEEA) — adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting in 2012 — integrates economic and environmental data into a unified statistical system compatible with the System of National Accounts (SNA). Since then, the framework has evolved significantly, culminating in the 2021 adoption of SEEA Ecosystem Accounting as a full statistical standard, and an accelerating global push for Ocean Accounting under the Global Ocean Accounts Partnership (GOAP).

The study reviews international methodologies on Natural Capital Accounting (NCA), including the UN SEEA, SEEA Ecosystem Accounting, and SEEA Ocean Accounting frameworks, to identify global best practices and technical standards. It will also examine Viet Nam's existing policies, legal frameworks, strategies, and institutional mandates related to NCA and environmental-economic integration. In addition, the study will assess previous NCA-related studies and pilot initiatives implemented by government agencies, academic institutions, and development partners, with a focus on data systems, institutional arrangements, and key outcomes.

The assessment also analyzes available technical guidance and global experiences on ocean accounting to explore their applicability to Viet Nam's context. Based on this review, the study will evaluate the current status of NCA implementation in Viet Nam, including institutional coordination mechanisms, data availability and use, technical capacity, legal and policy gaps, and the readiness for implementing ocean accounting at national and sub-national levels. Finally, the study will identify key challenges and opportunities for integrating NCA—particularly ocean accounting—into national planning and blue economy strategies, and provide practical recommendations to strengthen the enabling environment for NCA implementation in Viet Nam.

PART I. INTERNATIONAL METHODOLOGIES FOR NATURAL CAPITAL ACCOUNTING

I.1. Introduction to Natural Capital Accounting

Natural Capital Accounting (NCA) is an approach that integrates the value of nature into existing decision frameworks by treating the environment as a form of capital — an asset that must be maintained and managed, with its contributions measured and considered in economic decision-making. The fundamental premise is that mainstream economic indicators such as Gross Domestic Product (GDP) provide important information about the state of an economy, but entirely omit the crucial role of nature.

A defining illustration of this gap: if a country were to fell all its forests in a single year, this action would increase GDP in the short term through expanded timber revenues, while completely masking the catastrophic depletion of a vital long-term national asset. NCA corrects this by placing environmental assets on a national balance sheet alongside produced and human capital.

Definition: Natural Capital

Natural capital refers to the world's stocks of natural assets including geology, soil, air, water, and all living organisms. It is from this natural capital that humans derive a wide range of ecosystem services and goods that make human life possible.

The formal international development of NCA dates to the early 1990s, when the United Nations began work on satellite accounts to complement the SNA. Key milestones include:

Table 1: SEEA milestones

Year	Milestone
1993	First SEEA handbook published by the United Nations
2003	SEEA 2003 published as revised operational manual
2012	SEEA Central Framework adopted as the first UN international standard for environmental-economic accounting
2013	SEEA Experimental Ecosystem Accounting (EEA) endorsed by the UN Statistical Commission as an important first step
2017–2021	Comprehensive revision process for SEEA EEA, led by UNCEEA

2021	SEEA Ecosystem Accounting adopted as a full statistical standard at the 52nd session of the UN Statistical Commission
2022	Kunming-Montreal Global Biodiversity Framework signed; SDG 15.9.1(b) links to SEEA progress
2024–2025	Global Ocean Accounts Partnership technical guidance widely disseminated; 90+ countries implementing SEEA

I.2. The SEEA Central Framework

I.2.1 Overview and Status

The System of Environmental-Economic Accounting Central Framework (SEEA CF) was adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting in 2012. It constitutes the cornerstone of global NCA architecture and provides an internationally agreed set of standard concepts, definitions, classifications, accounting rules, and tables for producing internationally comparable statistics.

The SEEA CF follows a structure analogous to the System of National Accounts (SNA), deliberately using consistent concepts, definitions, and classifications to enable seamless integration of environmental and economic statistics — thereby facilitating analysis of the economy-environment nexus within familiar national accounting frameworks.

Core Objective of the SEEA Central Framework

To measure the contribution of the environment to the economy and the impact of the economy on the environment, using the same accounting logic as national GDP accounting — enabling a complete and consistent picture of the economy-environment nexus.

I.2.2 Structural Components

The SEEA Central Framework organises environmental statistics into four main account types:

Table 2: SEEA Central Framework

Account Type	Scope	Key Outputs
Physical Flow Accounts	Flows of natural inputs (materials, energy, water) from the environment to the	Material flow indicators, energy use accounts, waste accounts

	economy, and residuals returned	
Environmental Activity Accounts	Economic activities undertaken to protect the environment or manage natural resources	Environmental protection expenditure, resource management spending
Asset Accounts (Physical)	Stocks and changes in stocks of individual natural resources (mineral, water, timber, fish, land)	Opening/closing stock balances by resource category
Asset Accounts (Monetary)	Monetary valuation of natural resource stocks using net present value and market-based methods	Natural resource wealth estimates, depletion-adjusted income

1.2.3 Key Methodological Features

Alignment with the SNA

The SEEA CF deliberately mirrors SNA structure so that environmental accounts can be read alongside national accounts. This enables a country to compute concepts such as 'environmentally adjusted net domestic product' — GDP minus the estimated depletion of natural resources and the cost of pollution — providing a truer measure of sustainable income.

Physical vs. Monetary Measurement

The SEEA CF supports both physical measurement (volumes, tonnes, hectares, litres) and monetary valuation of environmental assets. Monetary valuation uses methods such as net present value of future resource rents, market prices, and replacement cost approaches. A notable feature is that physical accounts can be compiled independently — allowing data-limited countries to build accounts before tackling the more complex monetary valuation layer.

Scope of Natural Resources Covered

The framework covers: mineral and energy resources (coal, oil, gas, ores), land (seven LCCS-based categories), soil resources, timber resources, aquatic resources

(fish stocks), water resources (surface and ground), and other biological resources. Residual flows include solid waste, wastewater, and air emissions.

2.4 Governance and Implementation

The SEEA CF is governed by the UN Committee of Experts on Environmental-Economic Accounting (UNCEEA), co-chaired by the UN Statistics Division (UNSD) and the World Bank. As of the 2025 Global Assessment, implementation progress is tracked through SDG sub-indicator 15.9.1(b), which monitors countries' progress in establishing SEEA accounts. The assessment — conducted annually — shows that more than 90 countries now engage in some form of SEEA compilation, with a growing cohort in advanced stages of integration.

1.3. SEEA Ecosystem Accounting (SEEA-EA)

1.3.1 Origin and Adoption

SEEA Ecosystem Accounting (SEEA-EA) constitutes an integrated and comprehensive statistical framework for organising data about habitats and landscapes, measuring ecosystem services, tracking changes in ecosystem assets, and linking this information to economic and other human activity. It addresses the critical gap in the Central Framework, which focused on individual environmental assets (such as timber or fish stocks) rather than on the ecosystems that generate and sustain them.

The framework began as the SEEA Experimental Ecosystem Accounting (SEEA EEA), endorsed in 2013 as an exploratory first step. Following a rigorous revision process from 2017 to 2021 — managed by UNCEEA and involving experts from national statistical offices, international organisations, academia, and NGOs across all global regions — SEEA EA was adopted as a full statistical standard by the UN Statistical Commission at its 52nd session in March 2021. This represented the first time a framework integrating ecology and economics had achieved the status of a UN statistical standard.

SEEA EA Adoption: March 2021

The United Nations Statistical Commission adopted SEEA Ecosystem Accounting at its 52nd session in March 2021, following comprehensive testing, consultation, and revision involving experts from across the global statistical, geospatial, and

environmental economics communities. The UN Secretary-General subsequently urged all Member States to begin implementing SEEA EA.

1.3.2 Core Conceptual Advances

The Spatial Approach

A defining innovation of SEEA EA is its spatial approach. Unlike the SEEA Central Framework — which tracks individual asset classes — SEEA EA recognises that the benefits societies derive from ecosystems depend fundamentally on where those ecosystems are located relative to beneficiaries. A wetland's flood mitigation value depends on its position upstream of a city; a forest's carbon sequestration depends on its extent and condition.

SEEA EA accounts are therefore spatially explicit, using mapped ecosystem extent to anchor all other measurements. This enables integration with geospatial data, biodiversity assessments, and land-use planning systems.

Ecosystem Services vs. Natural Resource Flows

While the SEEA CF captures flows of natural resources into the economy (e.g., cubic metres of timber harvested), SEEA EA captures the broader provisioning, regulating, and cultural services that ecosystems deliver. These include services not captured by market transactions — such as flood regulation, pollination, carbon sequestration, and climate regulation — which represent significant sources of value currently invisible to GDP.

Table 3: Account Structure of SEEA-EA

Account	What It Measures	Examples
Ecosystem Extent Accounts	Area of each ecosystem type, changes over time	Forest cover, wetland area, urban extent
Ecosystem Condition Accounts	Biophysical condition of ecosystem assets relative to a reference level	Species diversity index, soil organic carbon, water quality
Ecosystem Services Flow Accounts	Volume of services supplied to economic units and households (physical)	Volume of water purification, tonnes of CO ₂ sequestered, visitor days
Monetary Ecosystem Services Accounts	Monetary value of ecosystem service flows	Avoided cost of flood damage, market revenue from fisheries

Ecosystem Asset Accounts (Monetary)	Value of ecosystem assets, analogous to produced capital stocks	Total asset value of forests, peatlands, coastal ecosystems
Thematic Accounts	Focused accounts for biodiversity, urban ecosystems, specific sectors	Biodiversity intactness, urban green infrastructure

1.3.3. Valuation Approaches

Monetary valuation in SEEA EA is a technically complex area that draws on environmental economics. Key approaches include:

- Market price methods: Used where ecosystem services are traded (e.g., water supply, fisheries), applying the price at the point where services flow into the economy.
- Revealed preference methods: Such as hedonic pricing (property price differentials attributable to proximity to green spaces) or travel cost methods (consumer surplus for recreation services).
- Stated preference methods: Contingent valuation and choice experiments to estimate willingness-to-pay for non-market services such as biodiversity or cultural values.
- Residual value / net present value: Applied to ecosystem assets analogously to produced capital, discounting expected future service flows at an appropriate social discount rate.
- Benefit transfer: Using value estimates from similar ecosystems in other contexts where primary valuation studies are not feasible — widely used in data-scarce settings.

SEEA EA acknowledges that no single method is universally applicable, and that physical accounts retain high analytical value even where monetary valuation is partial or not yet feasible.

1.3.4. Country Implementation: Illustrative Case Studies

Ecosystem accounts have already been used to inform policy development in more than 34 countries. Selected examples illustrate the breadth of application:

Country/Region	Key Implementation Activity
United Kingdom	ONS Natural Capital Accounts, aligned with SEEA EA principles, cover air quality, recreation, carbon, water, and flood regulation, updated regularly as official statistics.
Brazil, China, India, Mexico, South Africa	NCAVES project (2017–2021) piloted SEEA EA in all five countries, contributing directly to the 2021 adoption of SEEA EA as a statistical standard.
Australia	Integration of NCA into natural resource management policy; piloting condition accounts for Great Barrier Reef and inland water ecosystems.
Netherlands	Advanced monetary ecosystem accounts supporting delta management and water governance policy decisions.
Canada	Post-2024 roundtable recommendations to strengthen NCA alignment with the Kunming-Montreal GBF, integrating biodiversity data into national accounts.

I.4. SEEA Ocean Accounting Framework

I.4.1 The Case for Ocean-Specific Accounting

Oceans cover more than 70% of the Earth's surface and represent a critical natural capital base — providing food security, climate regulation, oxygen production, coastal protection, and the foundation of the global blue economy. One of the top challenges for monitoring progress toward SDG 14 ("Conserve and sustainably use the oceans, seas and marine resources") is the severe fragmentation of information across scientific domains, policy frameworks, and institutions.

Standard SEEA accounts were designed primarily for terrestrial ecosystems and economic sectors, leaving ocean assets — which span national jurisdictions, open seas, and complex multi-dimensional environments — inadequately captured. Ocean Accounting has emerged as the response to this gap.

The Ocean Accounting Gap

Over 90% of international trade is conducted by sea. Fisheries provide livelihoods for approximately 600 million people. Coastal ecosystems deliver billions in flood protection annually. Yet these values are largely invisible in national accounts and

GDP statistics — making ocean accounting a critical priority for sustainable blue economy governance.

1.4.2 Governance Architecture

Global Ocean Accounts Partnership (GOAP)

The Global Ocean Accounts Partnership (GOAP) is the primary international mechanism for developing and disseminating ocean accounting methodology. GOAP — with its Secretariat hosted at the University of New South Wales Sustainable Development Reform Hub — brings together governments, international organisations, research institutions, and civil society to develop international standards, methodologies, and best practices for implementing ocean accounts based on SEEA.

UN Statistical Commission Mandates

The international governance track for Ocean Accounting includes two key decisions by the UN Statistical Commission: at its 49th session in 2018, the Commission requested that ocean statistics be integrated into the SEEA EEA revision process; and at its 51st session in 2020, the Commission commended UN-ESCAP and GOAP's Technical Guidance on Ocean Accounting for Sustainable Development, recognising it as a solid foundation for integrating ocean accounts into SEEA.

1.4.3 The Ocean Accounts Framework Structure

An Ocean Account is a structured compilation—of consistent and comparable information: maps, data, statistics and indicators—concerning marine and coastal environments, including related social circumstances and economic activity. The general purpose of such accounts is to inform and enable public policy decision-making about oceans, and related analysis and research. The function of these accounts is to provide coherent structures for standardizing fragmented data to produce reliable integrated indicators of interest to policy.

Ocean Accounts are designed to support coherent and holistic reporting and assessment of the wide range of social, economic, and environmental conditions related to oceans.

The general structure and groups of component tables of the Ocean Accounts Framework are illustrated in **Figure 1** below, and can be summarised as follows:

Ocean assets (natural capital): recording the physical status and condition, and monetary value, of marine and coastal environmental assets (natural capital) including minerals and energy, land and soil, coastal timber, aquatic resources, other biological resources, water, and ecosystems including biodiversity.

Flows to economy (supply and use of ocean services, including goods): recording inputs from marine and coastal environmental assets to the economy, including ocean-related materials, energy, water, and ecosystem services. These inputs can be recorded in terms of physical quantities and monetary value.

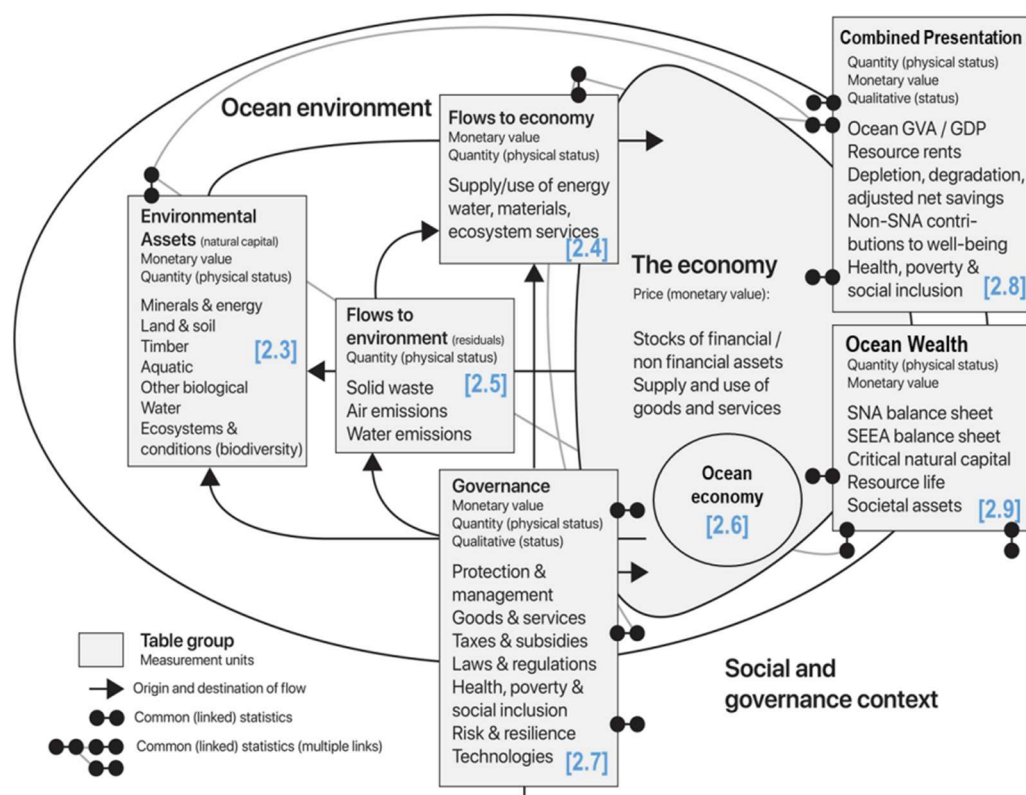
Flows to environment (residuals including ecosystem impacts): recording in physical units the outputs from the economy to the ocean environment including: solid waste, air emissions, water emissions, and impacts on ecosystems.

The ocean economy and the economy: recording the monetary value of production, consumption, accumulation, imports, and exports in economic sectors deemed relevant to the ocean, as well as non-market services in comparison to the economy of a nation. The economy is reflected in the Ocean Accounts as users of ocean services and suppliers of residuals (pollutants) and activities that affect the ocean.

Governance: recording a range of information (physical status, monetary value, and/or qualitative status) concerning collective decision-making about oceans, and the wider social and governance context in which such decisions are made. Information recorded in governance tables includes the status and/or value of: protection and management of ocean environment; the “environmental” goods and services sector of the ocean economy; relevant taxes and subsidies; applicable laws and regulations; health, poverty and social inclusion; risk and resilience; and ocean-related technologies.

Combined presentation: recording a “report card” of summary information (physical quantities, monetary value, and/or qualitative status) and indicators concerning the flows of benefits and costs (the latter broadly defined as maintenance and restorations costs, disservices and externalities) between the ocean environment and the economy. This information includes but is not limited to: the share of Gross Value Added / Gross Domestic Product attributable to the ocean economy; ocean resource rents; depletion, degradation and adjusted net savings relevant to oceans; contributions of oceans to human well-being (employment, sense of place) that are not recorded in the SNA; and relevant information concerning health, poverty and social inclusion.

National Wealth: recording summary information (in terms of physical quantities, and/or monetary value) concerning a country’s (or other region’s) stock of ocean wealth, including relevant stocks of environmental assets recorded on a SEEA balance sheet; economic/financial assets recorded on an SNA balance sheet; a subset of environmental assets that are defined as “critical” according to agreed criteria; the resource life of environmental assets; and relevant societal assets such as education and health systems



I.4.4 Ocean Economic Satellite Accounts (OESA)

A key component of the ocean accounting ecosystem is the Ocean Economic Satellite Account (OESA), which extends the System of National Accounts to provide detailed analysis of ocean industries. An OESA uses established national accounting methods to reorganise and disaggregate existing data on marine sectors — including fisheries, aquaculture, offshore energy, shipping, maritime tourism, and coastal construction — while maintaining international comparability with GDP and other national economic statistics.

The OECD's Blueprint for Improved Measurement of the International Ocean Economy (2021) and GOAP's technical guidance provide complementary methodological foundations, with the overarching goal of producing integrated accounts that align with both SNA and SEEA.

PART II: NATURAL CAPITAL ACCOUNTING IN VIET NAM

II.1. Comprehensive Legal and Policy Review

Viet Nam has constructed a layered legal architecture that progressively embeds Natural Capital Accounting principles across multiple governance levels — from the highest Party directives down to sector-specific legislation. This section traces that architecture systematically, identifying both the substantive provisions that advance NCA and the persistent gaps where integration remains incomplete.

II.1.1 Higher-Level Party Directives: The Political Catalyst

Party Resolutions in Viet Nam occupy a constitutional position above ordinary legislation. They set strategic direction that subordinate laws and regulations must follow. Two resolutions are directly foundational for NCA.

Resolution No. 24-NQ/TW (2013) — The Constitutional Baseline

Adopted by the Central Committee of the Communist Party of Viet Nam in 2013, Resolution 24 on proactive responses to climate change, strengthening natural resource management and environmental protection is the single most important political directive driving NCA in Viet Nam. It explicitly calls for the valuation of natural resources and the establishment of a national natural resource accounting system — a direct mandate to prevent conventional GDP metrics from obscuring ecological destruction.

This resolution set in motion a cascade of legislative reforms over the following decade. Its emphasis on integrating natural resource values into national economic planning effectively created the political legitimacy for all downstream NCA work, including ecosystem accounting pilots, valuation studies, and Green Growth strategy development.

Resolution 24 — Key NCA Provisions

- Explicitly mandates valuation of natural resources at national scale
- Calls for establishment of a national natural resource accounting system
- Frames natural resource depletion as a risk to economic performance, not merely an environmental concern
- Provides political legitimacy for all subsequent NCA legislation and pilot programmes

Resolution No. 36-NQ/TW (2018) — The Blue Economy Mandate

Resolution 36 on the Strategy for Sustainable Development of Viet Nam's Marine Economy to 2030 with Vision to 2045 pivots the country toward a Blue Economy paradigm. Crucially, it does not treat marine growth and environmental protection as trade-offs: it mandates that maritime economic expansion must be bounded by ecosystem thresholds, and requires marine spatial planning to be grounded in the economic valuation of marine ecosystem services.

This resolution directly elevates coastal and marine natural capital from a management concern to an economic planning imperative. It provides the policy architecture within which marine ecosystem accounting — including accounts for mangrove carbon sinks, coral reef fisheries, and coastal protection services — becomes not merely useful but legally required as a basis for planning decisions.

II.1.2 Environmental Protection and Macroeconomic Integration Legislation**Law on Environmental Protection (LEP) 2020**

The 2020 Law on Environmental Protection represents the most significant legislative shift toward environmental-economic integration in Viet Nam's statutory history. Unlike its predecessors, which treated environmental protection primarily as a regulatory and compliance matter, the 2020 LEP introduces a suite of market-based instruments designed to internalise ecological costs directly into corporate and national financial accounts.

Green Finance (Articles 149 & 150): The LEP formally codifies the legal definitions and incentive frameworks for Green Credit and Green Bonds. These instruments channel domestic and international private capital into ecological restoration, clean energy infrastructure, and low-carbon development — creating financial flows that are directly linked to natural capital maintenance.

Extended Producer Responsibility (EPR): Manufacturers are required to internalise the end-of-life management costs of their products — packaging, electronics, batteries — directly into their corporate balance sheets. This shifts environmental costs from public budgets to private actors, a foundational principle of environmental-economic accounting.

Environmental Liability and Compensation (Article 130): The LEP establishes a legal framework for calculating and claiming economic damages caused by pollution, based on asset degradation methodologies. This is a significant step toward market-consistent natural capital valuation. However, a critical gap remains: the provision still lacks the standardised, data-driven frameworks that SEEA

accounts would provide for assessing subtle, non-linear, or cumulative ecosystem service losses.

II.1.3 Biodiversity Conservation Framework

Law on Biodiversity 2008

The Law on Biodiversity is the foundational legal instrument governing ecosystem protection, species conservation, and genetic resource management in Viet Nam. It defines the criteria for establishing and managing protected areas, national parks, and biodiversity conservation corridors, and mandates biodiversity master planning at both national and provincial levels.

From an NCA perspective, the Law on Biodiversity performs an essential but underutilised function: it delineates the physical 'asset boundaries' within which ecosystem accounts must be constructed. Protected areas, conservation corridors, and biodiversity hotspots identified under this law correspond directly to the spatial units used in SEEA Ecosystem Accounting.

The principal limitation is one of framing. The law approaches conservation primarily as a protectionist, budget-consuming endeavour rather than as an investment in a productive national asset base. This framing inhibits the transition from viewing biodiversity protection as a cost to be minimised to recognising it as a capital investment that generates returns — a reframing that NCA directly enables. Future revision of this law could benefit substantially from incorporating SEEA EA concepts of ecosystem condition and service flows.

II.1.4. Water Resources and Forest Legislation

Law on Water Resources 2023 — A Major Leap Forward

The revised Law on Water Resources, enacted in 2023, is arguably the most advanced piece of environmental-economic integration legislation currently in force in Viet Nam. It fundamentally shifts water governance from a volume-based extraction model — focused on issuing permits for withdrawal — to an economically grounded allocation system that requires the systematic calculation of water availability, usage efficiency, and economic returns per cubic meter of water consumed.

This approach directly mirrors the logic of UN-SEEA Water Accounts (SEEA-W), which track physical and monetary flows of water through the economy and environment. The 2023 Law therefore lays the legal foundation for piloting formal SEEA-W accounts in Viet Nam, and its requirements around water monitoring and reporting provide a statutory basis for the data collection that those accounts would require.

Law on Water Resources 2023 — NCA Significance

- Shifts from extraction-permit model to economic allocation with returns-per-m³ calculation
- Directly compatible with UN-SEEA Water Accounts (SEEA-W) methodology
- Creates statutory data collection mandate that supports water account development
- Introduces equitable allocation principles that implicitly recognise water as a scarce economic asset

Law on Forestry 2017 — A Closed-Loop Ecosystem Finance Model

The Law on Forestry is among the most mature pieces of environmental-economic integration legislation in Viet Nam, codifying the Payment for Forest Ecosystem Services (PFES) scheme that was first piloted in Lam Dong province in 2009 and scaled nationally from 2010. By creating a legal obligation for downstream water users — hydropower plants, clean water production facilities, and industrial complexes — to pay upstream forest owners for water regulation, soil erosion control, and carbon sequestration services, the law creates a closed-loop financial mechanism in which ecosystem values are directly converted into rural income.

This constitutes one of the most direct expressions of NCA principles in Vietnamese law: ecosystem services are identified, quantified (at least implicitly), and priced through a market transaction that links beneficiaries to providers. The PFES scheme has generated substantial empirical data on ecosystem service values and financial flows, data that is directly usable in SEEA forest and ecosystem accounts. However, the pricing mechanism in the PFES remains administratively set rather than economically derived — a limitation that more rigorous NCA could help to address.

II.1.5 Coastal Zone and Maritime Management

Law on Marine and Island Resources and Environment 2015

The Law on Marine and Island Resources and Environment establishes the primary legal framework regulating interactions between human activities and coastal and marine ecosystems. Its two most significant provisions for NCA purposes are the Integrated Coastal Zone Management (ICZM) framework and the Coastal Protection Corridor requirement.

The ICZM framework creates institutional mechanisms to resolve spatial conflicts among tourism, aquaculture, shipping, fisheries, and conservation — the exact conflicts that generate competing demands on coastal natural capital. By requiring these conflicts to be managed within a single integrated framework, the law creates both the administrative need for and the institutional receptiveness to marine natural capital accounts that can quantify trade-offs among competing uses.

The Coastal Protection Corridor prohibits construction within a minimum of 100 metres from the high-tide line, establishing a mandatory buffer that implicitly recognises the economic value of coastal ecosystem services such as storm protection, erosion control, and biodiversity support. While the corridor is defined in physical rather than economic terms, it creates the spatial architecture for Marine Spatial Planning (MSP) — and MSP is in turn the geospatial baseline needed to map and account for marine natural capital assets, including mangrove carbon sinks, seagrass beds, coral reef fisheries, and coastal wetland protection services.

Law on Marine & Island Resources 2015 — NCA Linkages

- ICZM framework creates institutional need for quantitative trade-off analysis across competing coastal uses
- Coastal Protection Corridor (100m buffer) provides spatial basis for ecosystem asset mapping
- Marine Spatial Planning architecture provides geospatial baseline for marine NCA
- Covers mangrove carbon sinks, coral reef fisheries, seagrass beds, and wetland protection services

II.1.6 Summary: Legal and Policy Instruments Supporting NCA in Viet Nam

The table below provides a consolidated overview of the seven key legal and policy instruments reviewed in this section, characterising each by year, thematic sector, NCA relevance, and degree of integration.

Table 5: Legal and Policy Instruments Supporting NCA in Viet Nam

Legal Instrument	Year	Sector / Theme	NCA Relevance	Integration Level
Resolution 24-NQ/TW (Party)	2013	Cross-sectoral	Mandates natural resource valuation & NCA system	Very High — constitutional baseline
Resolution 36-NQ/TW (Party)	2018	Marine / Blue Economy	Marine spatial planning;	High — sectoral mandate

			ecosystem threshold limits	
Law on Environmental Protection	2020	Environment / Finance	Green credit & bonds; EPR; environmental liability	High — internalises ecological costs
Law on Biodiversity	2008	Biodiversity / Protected Areas	Sets physical asset boundaries for accounting	Medium — protectionist framing
Law on Water Resources	2023	Water / Hydrology	Mandates water resource accounting; SEEA-W foundation	Very High — explicit mandate
Law on Forestry	2017	Forests / PFES	Codifies PFES payments; closed-loop ecosystem finance	High — direct economic valuation
Law on Marine & Island Resources	2015	Coastal / Marine	ICZM; coastal corridor; Marine Spatial Planning baseline	Medium–High — spatial baseline

II.2. International NCA Initiatives with Vietnamese Participation

II.2.1. UNEP ProEcoServ Project (2011-2015)

The Project for Ecosystem Services (ProEcoServ), a flagship project of the United Nations Environment Programme (UNEP), was implemented in four pilot countries: Viet Nam, South Africa, Trinidad and Tobago between 2011 and 2015. Its overarching objective was to integrate the economic value of ecosystem services into government policy and investment decisions.

In Viet Nam, ProEcoServ assessed a range of ecosystem services including water provision, soil retention, shoreline protection, carbon sequestration, and pollination. The project quantified substantial economic values from these services, contributing to nearly one billion US dollars of identified benefits across the four pilot countries combined. Crucially, the economic valuation results and other insights generated by ProEcoServ were used to help inform the development of Viet Nam's National Strategy for Green Growth and the National Strategy for Environmental Protection, representing one of the earliest documented instances of NCA findings influencing national policy in the country.

The ProEcoServ experience in Viet Nam illustrated the potential of ecosystem accounting tools to bridge the gap between environmental science and economic policy, and demonstrated that success stories around incorporating ecosystem services into policy were achievable in a Southeast Asian developing country context.

Key Outcomes: ProEcoServ in Viet Nam

- Assessed provisioning, regulating, and cultural ecosystem services at national and sub-national scales
- Economic valuations contributed to approximately USD 1 billion in identified benefits across four pilot countries
- Findings directly informed Viet Nam's National Strategy for Green Growth
- Findings also informed the National Strategy for Environmental Protection
- Demonstrated practical tools for integrating ecosystem values into policy design

II.2.2. Advancing Natural Capital Accounting (ANCA) Project (2014-2016)

The ANCA project was implemented jointly by the United Nations Statistics Division (UNSD), the UNEP TEEB (The Economics of Ecosystems and Biodiversity) Office, and the Convention on Biological Diversity Secretariat, funded by the Norwegian Agency for Development Cooperation (NORAD). It ran from 2014 to 2016 and engaged six pilot countries: Bhutan, Chile, Indonesia, Mauritius, Mexico, and Viet Nam.

Viet Nam's participation in ANCA focused on advancing experimental ecosystem accounting aligned with the SEEA Experimental Ecosystem Accounting (SEEA EEA) framework. The project produced a five-year global strategy for advancing the testing and research agenda of the SEEA EEA, alongside a series of technical guides covering different account types, including ecosystem, water, land, and carbon accounts. These materials provided Vietnamese counterparts with both methodological grounding and practical tools for developing comparable environmental-economic statistics.

The ANCA project was significant for Viet Nam in establishing a methodological foundation and building in-country statistical capacity ahead of more substantive SEEA implementation. It also positioned Viet Nam within an international community of practice on NCA, enabling knowledge exchange with peer countries at similar stages of development.

II.2.3. World Bank GPS/WAVES Programme (from 2017)

The Wealth Accounting and the Valuation of Ecosystem Services (WAVES) partnership, a World Bank-led global programme, was incorporated into the broader Global Program for Sustainability (GPS) from around 2017. While Viet Nam was not a core implementing country in the WAVES programme alongside countries such as Botswana, Rwanda, and the Philippines, GPS/WAVES provided project-level support to four countries in East Asia: Myanmar, Lao PDR, Cambodia, and Viet Nam.

For Viet Nam, this support focused specifically on coastal ecosystem accounts and scenario analysis, recognising the country's extensive and ecologically critical coastline as a priority area for NCA. This thematic focus was directly responsive to the country's development context, given the dependence of millions of people on coastal fisheries, aquaculture, tourism, and the protective services of mangroves and wetlands against storms and erosion.

II.2.4 Coastal Ecosystem Accounting: The JBA/World Bank/ISPONRE Initiative

A dedicated initiative to value the ecosystem services of Viet Nam's coastal ecosystems was undertaken on behalf of the World Bank, implemented by JBA Consulting in collaboration with the Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE). This initiative is among the most methodologically detailed NCA exercises conducted in Vietnam.

The project developed a comprehensive framework to capture the ecosystem services and economic value of mangroves, wetlands, and coastal forests. It reviewed existing approaches for valuing coastal ecosystem services, identified priority services at both local and national levels, and developed and tested methodologies in two pilot provinces using SEEA Experimental Ecosystem Accounting. The methodology explicitly measured both the supply of services and their beneficiaries.

An important design feature was the inclusion of both market benefits (including fisheries, tourism, and sand extraction) and non-market benefits (such as erosion control, flood protection, biodiversity support, and climate regulation). This dual approach provided a fuller picture of the economic contributions of coastal ecosystems, which are typically undervalued when only marketed goods are counted.

The initiative also produced a national framework designed to support replication of the methodology across other provinces, and linked results to practical guidance for implementing coastal setback lines under Viet Nam's Planning Law (Law No. 21/2017/QH14, effective from January 2019). This law marked a turning point in Vietnamese planning by requiring ecosystem values to be included in all master

plans; a significant institutional development that created a legal mandate for NCA integration into spatial planning processes.

The coastal sea dykes of Viet Nam protect around 630,000 hectares of agricultural land and 8.7 million people, yet their effectiveness has been declining over time. The valuation work strengthened the case for nature-based solutions; particularly mangrove restoration; as cost-effective complements to grey infrastructure, capable of reducing dyke maintenance costs while delivering multiple co-benefits. Findings from this project were incorporated into the World Bank's guidance on resilient coastal economies in Viet Nam.

PART III. STRENGTHENING THE ENABLING ENVIRONMENT FOR NCA AND OCEAN ACCOUNTING IN VIET NAM.

III.1. Key Gaps and Challenges

III.1.1. Institutional Architecture: Fragmentation and Absent Ownership

The most fundamental challenge facing NCA in Viet Nam is the absence of a clearly designated institutional home. NCA-relevant activities are currently distributed across different line ministries and agencies — the Ministry of Natural Agriculture and Environment (MAE), the General Statistics Office (GSO), the Ministry of Finance (MPI), and the newly renamed Institute of Strategy and Policy on Agriculture and Environment (ISPAE, formerly ISPONRE) — without a formal inter-agency mechanism to coordinate methodology, data sharing, or policy uptake.

This fragmentation produces predictable consequences. Data collected by one agency cannot be readily combined with data collected by another, because standards differ. Policy decisions made by one ministry do not benefit from ecosystem account data held by another. Pilot project outputs remain within the institutional boundaries of the project implementing agency rather than flowing into a shared national data infrastructure. The result is a system that is simultaneously active in many parts and coherent in none.

Crucially, the GSO — which as the national statistics authority would be the logical institutional anchor for SEEA-compliant accounts — has not yet formally incorporated environmental-economic accounting into its statistical programme. This means that NCA remains a project activity rather than a government function, dependent on external funding cycles rather than domestic budget lines.

III.1.2 Data and Statistical Infrastructure: Fragmented, Inconsistent, Incomplete

SEEA-compliant accounts require consistent, spatially explicit, time-series data on ecosystem extent, condition, and service flows. Viet Nam's current environmental

data systems were not designed to provide this. Data on forest cover, coastal ecosystem extent, water quality, fishery stocks, mangrove area, and marine biodiversity are collected by different agencies using different methodologies, at different intervals, and often with different spatial resolutions. The result is a patchwork of datasets that cannot be readily assembled into the coherent, integrated accounts that SEEA requires.

Specific data gaps of high priority include: the absence of systematic national-level condition accounts for coastal and marine ecosystems (as opposed to extent maps); the lack of time-series data on ecosystem service flows — particularly for regulating services such as coastal protection, carbon sequestration, and water regulation — at the spatial and temporal resolutions needed for accounting; the incomplete coverage of fisheries data, particularly for small-scale and subsistence fisheries that are critical to coastal livelihoods; and the absence of standardised monetary valuation frameworks for non-market ecosystem services that could be applied consistently across provinces.

The National Marine Spatial Planning Resolution (Resolution 139/2024/QH15) has already exposed this data gap starkly: the planning process has generated demand for integrated marine data that the existing system cannot yet supply. This demand creates both urgency and political momentum for data infrastructure investment.

III.1.3 Methodological Coverage: Incomplete Account Types

The NCA pilots conducted in Viet Nam to date have focused primarily on a subset of account types that are most tractable methodologically — coastal ecosystem extent accounts, solid waste flow accounts, governance accounts, and forest carbon stock accounts under REDD+. Whole categories of accounts provided for under the SEEA framework remain undeveloped or at very early stages.

The most significant methodological gaps include the following. First, comprehensive ocean accounts — covering the full range of marine assets (fisheries, seabed minerals, marine renewable energy potential, blue carbon, coral reefs, seagrass beds) and their ecosystem service flows — are absent at national scale despite the Quang Ninh pilot. Second, freshwater ecosystem accounts, despite the Law on Water Resources 2023 providing a statutory mandate, have not yet been developed in SEEA-compatible form. Third, biodiversity accounts — which would track species populations and the ecosystem condition indicators on which biodiversity depends — are missing entirely. Fourth, monetary ecosystem accounts, which convert physical service flows into monetary values using defensible, consistent valuation methods, remain highly underdeveloped. The PFES programme

provides data on some provisioning services but leaves most regulating and cultural services unvalued.

This methodological incompleteness matters because decision-makers cannot use accounts that do not yet exist. A Blue Economy strategy that sets targets for fisheries, offshore wind, and coastal tourism needs accounts that cover all three, expressed in comparable units. Without this, NCA evidence reaches planners selectively and piecemeal rather than as an integrated basis for trade-off analysis.

III.1.4 Policy Integration: Mandates Without Mechanisms

Viet Nam's legal framework contains a growing number of provisions that mandate or encourage the use of NCA and ecosystem valuation in planning and decision-making — the Planning Law's requirement to include ecosystem values in master plans, the Law on Water Resources' mandate for water resource accounting, and Resolution 24's call for a national natural resource accounting system. Yet the translation of these mandates into operational planning tools, decision criteria, or budget instruments has been almost entirely absent.

The Planning Law, in force since January 2019, requires ecosystem values to be reflected in all master plans at national, regional, and provincial levels. More than six years after enactment, there is no standardised methodology for how provinces should do this, no guidance on which valuation methods are acceptable, and no mechanism by which ecosystem account data — when it exists — is fed into the planning process. The legal mandate exists in isolation from the institutional and technical infrastructure needed to implement it.

Similarly, the Blue Economy strategy framework established by Resolution 36 (2018) explicitly requires that marine economic growth be bounded by ecosystem thresholds. Yet neither the strategy nor its implementing decrees specify how those thresholds are to be determined, what account types would be used to monitor whether they are being respected, or what corrective mechanisms would apply if they are breached. The strategy's ecological commitments are, in effect, aspirational rather than operational.

III.1.5 Finance and Sustainability: Pilot Dependency

Every significant NCA initiative in Viet Nam to date has been financed by international sources: UNEP, NORAD, the World Bank, the UK Blue Planet Fund, and GEF. This project-by-project funding model has critical limitations. Projects have fixed timelines, typically two to five years, which is insufficient for developing the multi-year time-series data that NCA requires. Project staff build expertise that is not retained when the project closes. Project outputs are rarely incorporated into

government systems because government counterparts lack the mandate, budget, or staffing to maintain them.

The GEF project (2023–2028) represents a significant improvement in ambition and duration, but it too is externally funded and faces the risk of leaving behind a knowledge product rather than an institutional system. Sustainable NCA requires domestic government budget lines, staffing within permanent agencies, and political commitment to maintaining accounts beyond any single funding cycle.

Viet Nam has also not yet mobilised the private sector or domestic financial institutions as partners in NCA. Green bonds and green credit, now formally defined in the LEP 2020, require natural capital data to underpin credible environmental impact assessments — but the accounts needed to supply that data do not exist. The result is a circular dependency: NCA would support green finance, but green finance is not yet being used to fund NCA.

III.2. Opportunities for Integration

The GEF Project: A Catalytic Platform (2023–2028)

The GEF project 'Mainstreaming Natural Capital Values into Planning and Implementation for Sustainable Blue Economic Growth' is the most significant single vehicle for NCA institutionalisation currently in operation. It provides a five-year funded platform to embed natural capital data into planning processes, develop account types beyond coastal ecosystems, and build permanent government capacity. Its success or failure will largely determine whether Viet Nam transitions from a country that runs NCA pilots to a country that runs NCA as a government function. The recommendations in Section 4 are designed in part to maximise the impact of this window.

National Marine Spatial Planning: A Demand-Side Driver

Resolution No. 139/2024/QH15, adopted in June 2024, creates an unprecedented demand-side driver for NCA. The National Marine Spatial Plan (N-MSP) requires integrated marine data to resolve spatial conflicts among fisheries, aquaculture, offshore wind, shipping, conservation, and coastal development. It explicitly mandates coordination across sectors and institutions, and it operates on a ten-year horizon (2021–2030 with vision to 2050) that aligns well with NCA time-series development. The N-MSP cannot be effectively implemented without ocean accounts — which means that for the first time, planning agencies have a direct operational need for NCA outputs rather than merely an aspirational commitment to them.

This demand-side momentum can be leveraged to build the political and budgetary case for permanent ocean accounting infrastructure. ISPAE and partner agencies should actively position ocean accounts as the data foundation for N-MSP monitoring and adaptive management — making NCA indispensable rather than advisory.

The Ha Long Consensus and Regional Momentum

The Ha Long Consensus, adopted in March 2025, formalises Viet Nam's leadership role in a regional community of practice on ocean accounting across south and southeast Asia. Ten countries committed to developing data hubs, knowledge-sharing mechanisms, and governance processes that align across the region. This regional framework offers Viet Nam access to peer learning, shared methodological development, and potentially pooled resources for ocean account infrastructure. It also creates reputational incentives — as the consensus host and initiator, Viet Nam has a particularly strong interest in demonstrating practical progress in implementing its own ocean accounts.

UNDP Blue Economy Scenarios: A Decision-Support Tool

The UNDP-supported Blue Economy Scenarios study estimated that applying blue economy principles could add USD 23.5 billion to Viet Nam's marine GDP by 2030 compared to business-as-usual — a 34 percent premium. This figure, derived from modelling across fisheries, renewable energy, oil and gas, tourism, and transport, provides a powerful economic argument for the sustainable management of marine natural capital. NCA can translate this modelled potential into trackable account-based indicators, connecting the aspiration of blue growth to measurable ecosystem condition baselines that allow progress to be monitored.

Green Finance Architecture: An Untapped Linkage

The LEP 2020's codification of green credit and green bonds creates a domestic financial architecture that is structurally aligned with NCA. Green financial instruments require credible environmental baselines and impact metrics — precisely what ecosystem accounts provide. Viet Nam's growing engagement with international capital markets, including through its Just Energy Transition Partnership (JETP) commitments, creates external pressure for the kind of transparent, SEEA-compatible natural capital data that investors and development finance institutions increasingly require. Positioning NCA as the statistical backbone of Viet Nam's green finance framework could mobilise private co-investment in the development of accounts that serve both government and market needs.

III.3. POLICY INTEGRATION: USING OCEAN ACCOUNTS IN VIET NAM'S GOVERNANCE PRIORITIES

III.1.1. Marine Spatial Planning (MSP)

Viet Nam is developing a national Marine Spatial Plan under Resolution 36-NQ/TW covering coastal waters from the lowest average sea level line to six nautical miles offshore across all 28 coastal provinces. MSP requires comprehensive data on: ecosystem locations and extent; their condition and sensitivity to competing uses; the economic value of ocean activities; and existing governance arrangements. Ocean accounts directly provide this evidence base, and the GOAP Technical Guidance identifies MSP as the highest-priority policy use case for ocean accounting.

III.1.2 SDG 14 Monitoring and the Voluntary National Review

Viet Nam's SDG 14 (Life Below Water) obligations and its participation in the UN Voluntary National Review (VNR) process create direct institutional demand for ocean accounting data. SEEA-aligned accounts directly generate the following key indicators:

SDG Indicator	Ocean Account Linkage for Viet Nam
14.2.1 — Proportion of national EEZ managed using ecosystem-based approaches	Governance accounts document MPA coverage and management effectiveness; extent accounts provide ecosystem area for EEZ-level calculations. Viet Nam: 11 MPAs covering 1,579 km ² in 2021; target 6% of national sea area by 2030.
14.5.1 — Coverage of protected areas in relation to marine areas	Ecosystem extent accounts + MPA governance accounts. Expansion from 1,579 km ² to 6% of sea area (approximately 36,000 km ²) requires robust spatial tracking.
14.6.1 — Progress on IUU fishing measures	Governance accounts document fisheries enforcement framework; links to IUU fishing legal record and vessel monitoring systems. Critical given Viet Nam's EU Yellow Card (2017–present).
14.7.1 — Sustainable fisheries as % of GDP	OESA fisheries sector data provides the denominator; sustainability qualifier requires ecosystem service flow account linking catch to biomass depletion or sustainable yield metrics.
SDG 13.2 — Climate action integration	Blue carbon accounts integrated with the NDC directly contribute to Viet Nam's climate reporting and support quantification of ecosystem-based adaptation and mitigation co-benefits.

III.1.3 NDC Implementation and Blue Carbon Finance

Viet Nam's enhanced NDC (2022) commits to 43.5% GHG emission reduction by 2030 (with international support) and net-zero by 2050. Blue carbon ecosystems represent significant, currently under-monitored sinks in the national GHG inventory. Integrating blue carbon accounts into the NDC reporting framework would: (1) improve accuracy of the LULUCF sector in the national GHG inventory; (2) quantify the emission reduction value of mangrove and seagrass restoration programmes; (3) establish the MRV infrastructure required for blue carbon credit generation; and (4) support inclusion of ecosystem restoration in the Just Energy Transition Partnership (JETP) commitments.

The OECD Economic Survey: Viet Nam 2025 explicitly notes Viet Nam's excellent conditions for expanded low-carbon electricity — including offshore wind potential of 500+ GW — and identifies the Mekong Delta's mangrove-associated ecosystems as a key area where natural capital conservation and low-carbon development must be co-managed. Blue carbon accounts are the measurement tool for this co-management.

III.1.4 Blue Economy Scenarios and Resolution 36 Target Tracking

The UNDP/VASI blue economy scenario analysis (2021–2022) compared business-as-usual and sustainable 'blue' scenarios for six ocean sectors to 2030, demonstrating that ecosystem values for mangroves, seagrass, coral reefs, and lagoons could be maintained or improved under the sustainable scenario — but only through deliberate policy intervention. Ocean accounts provide the empirical baseline and consistent monitoring framework that makes scenario comparison credible.

Resolution 36's 2030 targets — marine sectors at ~10% of GDP, coastal provinces at 65–70% of GDP, tourism growing at 8–10% per year, offshore wind at 6 GW — all require measurement systems that only an OESA and supporting ecosystem accounts can provide. The 7.2% GDP baseline from the Quang Ninh pilot is the starting point; annual OESA compilation tracks progress. Condition account trends reveal whether the natural capital base supporting these economic targets is being maintained or depleted.

III.1.5 Sustainable Finance and Blue Economy Investment

The Ha Long Consensus explicitly identified mobilising sustainable finance as a regional priority. Ocean accounts provide the data infrastructure needed for:

- Blue bonds: Viet Nam is exploring blue bond issuance for fisheries, aquaculture, and marine conservation — building on its 2021 green bond framework. OESA

data and ecosystem condition indicators provide the impact measurement and reporting required by bond investors.

- **Payment for Ecosystem Services (PES):** Viet Nam's forest PES programme (Law on Forestry, 2017) is the most developed PES system in Southeast Asia. Extension to marine ecosystem services — coastal protection, water quality regulation, fisheries habitat — requires quantified service flow accounts that SEEA EA provides.
- **Blue carbon credits:** Voluntary carbon markets (Verra VCS, Gold Standard) are accepting blue carbon projects with increasing sophistication. Viet Nam's domestic carbon market framework (draft Decree, 2025) could include blue carbon credits. Ocean accounts provide the baseline measurement framework, though carbon credit MRV requirements exceed standard SEEA specifications.
- **Nature-related financial disclosure:** International investors in Viet Nam's offshore wind, aquaculture, and tourism sectors are increasingly subject to TNFD (Taskforce on Nature-related Financial Disclosures) and EU CSRD requirements. National-scale ocean ecosystem accounts provide the biodiversity and ecosystem data that firms operating in Viet Nam need for TNFD disclosures — reducing corporate compliance costs while improving data quality.

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- Global Ocean Accounts Partnership: <https://www.oceanaccounts.org>
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