

COMPONENT 3:  
INFORMATION-SHARING, AWARENESS-  
RAISING AND NETWORKING TO MAINSTREAM  
NATURAL CAPITAL ACCOUNTING



INFORMATION-SHARING, AWARENESS-RAISING AND NETWORKING TO  
MAINSTREAM NATURAL CAPITAL ACCOUNTING

OUTPUT 3.2.3  
FACILITATE EXCHANGE PROGRAMS  
FOR NC ACCOUNTING DECISION-  
MAKERS, MANAGERS AND/OR  
RESEARCHERS

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## Executive Summary

This report summarizes the Thailand–Philippines exchange visit on Natural Capital Accounting (NCA), held in Palawan and Metro Manila from 15 to 18 June 2026. The visit aimed to learn from the Philippines’ experience in institutionalizing NCA through the Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act and applying ecosystem accounts at national, provincial, and local levels.

The Thai delegation met with Puerto Princesa City Government, Puerto Princesa City Environment and Natural Resources Office, the Palawan Council for Sustainable Development, the Philippine Statistics Authority, and the Department of Environment and Natural Resources. Key findings show that NCA is most effective when supported by a clear legal mandate, dedicated institutional roles, reliable data systems, and strong inter-agency coordination. The Philippines’ experience demonstrates how NCA can move beyond pilot projects into regular government functions and support decisions on land-use planning, protected area management, environmental impact assessment, sustainable financing, and national accounting.

The visit also highlighted challenges including technical capacity gaps, fragmented data systems, staff turnover, high validation costs, and the need for sustained funding. For Thailand, the lessons are particularly relevant to NCA development in Krabi Province and future national applications, especially in linking ecosystem accounts with tourism management, coastal resource protection, water quality, provincial land-use planning, and conservation financing. Overall, the exchange showed that NCA should be applied not only as a technical accounting framework, but as a practical policy tool for sustainable development and natural resource management.

## 1. Introduction

Natural capital accounting (NCA) is an accounting framework that systematically measures the stocks and flows of natural resources (natural capital) and the ecosystem services they provide to humans. It integrates data to quantify the value of these natural resources as a tool for policymakers to make informed decisions and recognize the importance of environmental sustainability as well as economic development. Scarce natural resources are being overexploited for economic growth, which has significant implications for future sustainability. Valuing natural resources helps to address environmental and economic challenges that countries around the world face. NCA aims to recognize that the environment is important to society and the economy and thus should be valued and managed well. NCA frameworks integrate data to quantify the value of these natural resources for policymakers to make informed decisions and recognize the importance of environmental sustainability and economic development.

The purpose of the visit is to exchange the lessons learned on NCA with an ASEAN country. As stated in the project's document, this activity should arrange a visit to an ASEAN country for (Thai) key decision-makers and/or research institutions to share lessons learned and experiences in NC accounting.

After comprehensive research into the NCA statuses of ASEAN region countries, the country chosen to visit is the Philippines.

This report comprises: the significance of NCA for Thailand and Southeast Asia, the rationale of the proposed location (the Republic of the Philippines), the list of participants, key findings (observations) from the visit, and the conclusion of lessons learned from the exchange.

## 2. Significance of NCA for Thailand and Southeast Asia

Southeast Asia holds many biodiverse ecosystems that can value up to trillions of dollars (in its ecosystem services and economic value). The Coral Triangle known as the epicenter of marine biodiversity, lies across six Southeast Asian countries: Indonesia, the Philippines, Papua New Guinea, Solomon Islands, and Timor-Leste. Over 100 million people living in coastal communities within the Coral Triangle rely on the resources and services provided by the marine ecosystems. The region serves as a vital spawn and nursery area for marine species of global importance, such as tuna (Asian Development Bank, 2014). Protection of areas with biodiversity is critical for food security, disaster risk reduction, climate regulation, cultural (recreational) value, and economic stability. Many biodiverse areas are being overexploited through resource extraction. The costs are often not realized until the damage is done and cannot be recovered to its original state. NC accounting can play a significant role in guiding effective natural resource management, such as imposing more protected areas or better regulation of natural resource use.

Southeast Asian economies rely on its ecosystems (to support its tourism industry and other industrial sectors) for growth. To satisfy rapid development goals, overextraction of natural resources has resulted in increased climate risks and biodiversity loss. NCA can become a practical tool to align development with environmental sustainability. Thailand specifically, is rich in natural resources which supports its economy and population. Thailand's tourism sector is a key driver of the economy, employing over 4 million people or 10% of Thailand's employment. In 2024, tourism spending exceeded 1.66 trillion Thai baht, approximately 9% of Thailand's Gross Domestic Product (GDP) of that year (Puthong, 2025). In that same year, Thailand welcomed over 35 million visitors (Tourism Authority of Thailand, 2024), a significant increase from 11 million visitors of the previous year as the economy was recovering from the COVID-19 pandemic. Rising tourism brings revenue but also increases the use of natural resources and generates more waste.

As a country that has implemented NCA on a national level, Australia can be used as a case study on the benefits of NCA (CSIRO, 2021). The Murray Darling Basin is one of the major contributors to Australia's irrigation needs. Data from its water accounts (the Water Account Australia and the National Water Account) provided compelling evidence that water buybacks (World Bank Group, 2016a) are the best option in addressing water shortages from the Murray Darling Basin during droughts. The robust data from those accounts demonstrated the positive impacts of the water buyback scheme on local communities.

### 3. List of Participants (Representatives)

#### 1.1 Thai Delegation (Government Agency Representatives)

1. Office of Natural Resources and Environmental Policy and Planning (ONEP)  
*Mr. Bannaruk Sermthong – Secretary General*  
*Ms. Benchamaporn Wattanatongchai – Environmentalist, Senior Professional Level*  
*Mr. Pichet Soponpats – Environmentalist, Professional Level*  
*Ms. Suprawee Kuhatanasatian – Policy and Planning Analyst*  
*Ms. Wannapa Maneekul – Policy and Planning Analyst*
2. Office of the National Economic and Social Development Council (NESDC)  
*Ms. Pichayapron Dechsakul – Plan and Policy Analyst, Professional Level*
3. Office of the Permanent Secretary for the Ministry of Sports and Tourism  
*Ms. Pawilai Chalamat – Plan and Policy Analyst, Professional Level*
4. National Statistics Office (NSO)  
*Mr. Prawit Banjong – Statistician, Senior Professional Level*
5. Office of National Water Resources (ONWR)  
*Ms. Nantawan Suwansatit – Environmentalist, Senior Professional Level*
6. Department of Marine and Coastal Resources (DMCR)  
*Ms. Suhathai Praisankul – Fisheries Biologist, Senior Professional Level*
7. Krabi Provincial Office  
*Mr. Wirutthep Ratthakanwong – Chief of Krabi Governor's Office*  
*Mrs. Drunee Rattakanwong – Director of Human Resource Management Unit*
8. Provincial Office of Natural Resources and Environment, Krabi  
*Ms. Kanokporn Pokaanon – Environmentalist, Practitioner Level*

These agencies have the decision-making power to influence development and ecosystem-related policies, and to provide the necessary data to continue the NCA (for Krabi Province) conducted by the Project Consultant team. In addition to this, these agencies are directly involved in Thailand's tourism and water resources sector. A better understanding of how NCA is beneficial for quantifying economic value of ecosystem services and resources can support effective policies to protect Thailand's biodiversity and ecosystems.

## 1.2 Thai Delegation (Project Consultant Team)

9. Thailand Development Research Institute (TDRI)

*Assoc. Prof. Dr. Adis Israngkura – NCA Project Manager*

*Mr. Peerawat Suriyaburaphakul – Researcher*

*Ms. Ramida Hansaward – Project Coordinator*

## 1.3 Filipino Agency Representatives

1. Department of Environmental and Natural Resources (DENR)

*Atty. Jonas R. Leones – Undersecretary for Policy, Planning and International Affairs*

*Ms. Cheryl Loise T. Leal – Director of the Policy and Planning Service Unit*

*Mr. Ryan A. Cuanan – Supervising Ecosystems Management Specialist, Biodiversity Management Bureau*

*Ms. Rhea Amor Vega-Racelis – from the Knowledge and Information Systems Service Unit*

*Ms. Aura Venia D. Rayala – from the Knowledge and Information Systems Service*

*Ms. Kistialuz Beatrice N. Camat – from the Knowledge and Information Systems Service*

*Ms. Abigail V. Bautista – from Ecosystems Research and Development Bureau*

*Ms. Jennilyn A. Decuzar – from Ecosystems Research and Development Bureau*

*Ms. Micah de Leon – from Climate Change Service Unit*

2. Philippines Statistical Authority (PSA)

*Rosalinda P. Bautista – Assistant Secretary and Deputy National Statistician*

*Mark C. Pascasio – Assistant National Statistician*

*Virginia M. Bathan – Chief Statistical Specialist*

*Faith Lea B. Cabrera-Aldeza – Supervising Statistical Specialist*

*Michelle Fatima C. Arizo – Senior Statistical Specialist*

*Jonel Jake P. Galinato – Statistical Specialist II*

*Gino L. Condecion – Senior Statistical Specialist*

*Joshua Philip R. Simon – Statistical Specialist II*

*Jun Victor J. Caga-anan – Statistical Analyst*

*Alanis Morielle M. Maunahan – Administrative Assistant V*

*Agnes M. Amoroso – Administrative Assistant III*

*Angel A. David – Administrative Assistant II*

*Dianne Sofia L. Velasco – Administrative Assistant II*

3. Puerto Princesa City Government and Puerto Princesa City Environment and Natural Resources Office

*ATTY. Carlo T. Gomez – Department Head of the Puerto Princesa City Environment and Natural Resources Office*

*Ms. Zorina P. Arellano – Puerto Princesa City Environment and Natural Resources Officer*

4. Palawan Council of Sustainable Development (PCSD)

*Mr. John Francisco Pontillas – Chief of Planning Division*

*Dr. Arnica Mortillero – Chief of NCA Section*

5. Resources, Environment and Economics Center for Studies (REECS)

*Ms. Rina Rosales – President*

*Dr. Gem B. Castillo – NCA Exchange Visit Consultant and Vice President for Operations and Business Development*

*Dr. Marian Delos Angeles – Board Director*

*Ms. Antoinette N. Sia – Research Associate*

## 4. Area of Interest: Palawan, Philippines

### 4.1 Overview of Palawan's Biodiversity

Palawan is an archipelagic province, east of the Philippines, and it is also referred to as the “last ecological frontier” for its rich marine biodiversity. Its ecosystems support over 1,000 marine species (World Bank Group, 2016b; World Network of Island and Coastal Biosphere Reserves, n.d.). Palawan's ecosystems range from terrestrial (forests and grassland), freshwater (streams and rivers), and marine (coral reefs, seagrass beds, and mangroves). Significant areas such as Mt. Mantalingahan and Cleopatra's Needle Critical Habitat serve as important ecological refuges that harbor new discoveries with approximately 85% of Palawan's endemic mammals and birds. Palawan's Puerto-Princesa Subterranean River National Park (World Heritage Convention UNESCO, n.d.) and Tubbataha Reefs Natural Park (Tubbataha Reefs Natural Park and World Heritage site, n.d.) are UNESCO World Heritage Sites. Puerto-Princesa Subterranean River National Park has limestone karst landscapes and has a one-of-a-kind underground river system that flows directly into the sea. Both areas with almost pristine conditions as natural phenomena that must be preserved. Despite its wealth in biodiversity richness, Palawan remains under severe threat from wildlife poaching, deforestation and destructive coastal activities (World Bank Group, 2016b).

### 4.2 Similarities with Krabi Province

Krabi, a coastal province in southern Thailand, is known for its beautiful beaches and scenic natural attractions. It is also known as a global marine biodiversity hotspot with more than 200 species of fish and 80 species of coral. The estuary of Krabi is listed as a wetland of international importance under the Ramsar Convention, with mangrove forests, seagrass beds, and coral reefs. Additionally, limestone holds historical and environmental value that has been preserved for years. As a famous tourist attraction area with over two million tourists visiting annually, Krabi faces challenges from tourism development (Greenpeace Southeast Asia, 2014).

Palawan and Krabi share similarities in rich ecosystems, reliance on nature, and the environmental challenges faced. Both provinces are recognized as global marine diversity hotspots, especially Palawan which lies within the coral triangle. They share similarities with ecosystems such as limestone cliffs, rainforests, coral reefs, seagrass beds, and mangrove forests. Palawan and Krabi are well known tourist destinations, welcoming a significant number of tourists. In addition to tourism driving the local economy, agriculture and fishing are also being relied on. Krabi locals depend on the coastal waters and canals for fishing and aquaculture for food and income (Greenpeace Southeast Asia, 2014). Palawan is supported by its agricultural sector (producing rice, coconut and palm oil) and Palawan's fishing ground also supplies 45% of Manila's fish consumption (World Bank Group, 2016b). The pressures both provinces face stem from industrial and human activities that threaten their rich ecosystems. Krabi suffers from pollution that is dumped into its canals and flows into the sea, damaging the marine ecosystems. Palawan faces massive land conversions of forestlands cleared for palm and coconut

plantations. Mining extraction, illegal logging, and destructive fishing practices also affect the health of its ecosystems.

As environmental sustainability is important towards the protection of valuable ecosystems, Palawan and Krabi can benefit from NCA data. NCA data in monetary terms can be used as an evidence-based tool to break the tension between economic development and environmental preservation.

## 5. Philippines' NCA Related Policies

### 5.1 National Level Policies and PENCAS

Regarding natural capital accounting policies, the **Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act** was enacted in 2024 to pilot NCA with the support of WAVES. The PENCAS Act is a law that institutionalizes NCA on the national level for the Philippines. The act mandates the use of NCA in decision-making on national policies (National Economic and Development Authority, Philippine Statistics Authority, & Department of Environment and Natural Resources, 2022). PENCAS has shifted economic accounts to be standardized, aligning with the UN-SEEA framework. The mandate has allowed government agencies namely, the Department of Environment and Natural Resources (DENR) to establish NCA units, dedicated to incorporating ecosystem (services and resources) valuations into official policies. The PENCAS Act allows for more effective landscape management through systematically tracking the changes in its natural capital overtime, integrating credible data collection methods, and ensuring that the economic value of nature's benefits is explicitly prioritized in national investments and development plans.

In the WAVES Technical Report for the Pilot of Southern Ecosystem Accounts (2016b), the work plan includes implementing SEEA and establishing ecosystem accounts for two pilot sites, one for Southern Palawan and one for Laguna Lake Basin. According to the report, the **Southern Palawan Ecosystem Accounts** consist of five accounts: land account, carbon account, ecosystem asset account, ecosystem service use and supply account, and ecosystem condition account. Data from those accounts revealed a reduction in deforestation and "potentially reversed" deforestation in Southern Palawan, where those forests are crucial carbon sinks. However, it also uncovered a "drastic" decline in mangrove forests and coral reef ecosystems. This initiative demonstrates the value of NCA as a tool to aid conservation policies. Translating the value ecosystems provide into monetary terms, closes the gap of appealing the importance of ecosystem protection to policy.

## 5.2 Provincial Level Policies

On the provincial level, the **Strategic Environmental Plan (SEP) for Palawan** Act is the foundational law for environmental management in Palawan. The Act utilizes a zoning strategy called the **Environmental Critical Areas Network (ECAN)** to monitor land cover and manage natural resource use. The ECAN uses spatial data from the pilot ecosystem accounts (for Southern Palawan) to categorize the land into different zones to allocate the appropriate level of protection and allowable human activities. These zones are categorized into core zones (strict protection areas), restricted use zones, controlled use zones, traditional use zones, and multiple-use zones. In terms of regulations, Palawan has a Mangrove Forest Policy that aims to protect mangrove ecosystems and the National Log Ban. NCA information shows the effectiveness of these regulations. Other policies aimed to encourage sustainable development activities can use NCA data as an evidence tool to justify implementation against the externalities affecting the environment.

## 6. Exchange Visit Itinerary

The visit is focused on seeing the Philippines biodiversity management, specifically on their policies and mechanisms for environmental sustainability (on a provincial level and national level). Meetings with local officers to exchange experiences with Thailand's experience can allow for using the lessons learnt and the challenges encountered to improve NCA initiatives moving forward.



### Agenda for Site Visit to the Republic of Philippines

To Exchange Experiences with an ASEAN Country with NCA Experience  
to Support Thailand's NCA Development

Under the Integration of Natural Capital Accounting in Public and Private Sector Policy and  
Decision-making for Sustainable Landscapes Project

Monday 15 June 2026 to Thursday 18 June 2026

At Palawan Island and Metro Manila, the Philippines

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#### Day 1 (June 15<sup>th</sup> 2026)

7:30 AM	Arrive at Suvarnabhumi Airport, at meeting point (Counter Row N)
10:20 AM – 3:00 PM	Depart from Suvarnabhumi Airport – Flight PR741 and arrive at Ninoy Aquino International Airport
6:05 PM – 7:25 PM	Domestic transfer from Ninoy Aquino International Airport – Flight PR2279 and arrive at Puerto Princesa International Airport (Palawan Island, Philippines)
7:45 PM – 8:45 PM	Dinner at Ka Joel Restaurant
8:45 PM – 9:00 PM	Commute to hotel (Hue Hotel) and check-in

### Day 2 (June 16<sup>th</sup> 2026)

7:00 AM – 8:30 AM	Leave hotel to commute to Puerto Princesa Subterranean River National Park
8:45 AM – 10:45 AM	Visit the Puerto Princesa Subterranean River National Park (boat ride to the underground cave)
11:00 AM – 12:30 PM	Commute from Puerto Princesa Subterranean River National Park back to the hotel to freshen-up and check out
12:30 PM – 1:00 PM	Check out of hotel
1:00 PM – 2:00 PM	Lunch at La-ud Restaurant
2:00 PM – 2:30 PM	Commute from hotel to Puerto Princesa City Government
2:30 PM – 4:30 PM	Meet with PCSD and Puerto Princesa City Environment to discuss Palawan's experience with NCA and natural resource management
4:30 PM – 5:00 PM	Commute from Puerto Princesa City Government to Puerto Princesa International Airport
6:40 PM – 8:05 PM	Depart from Puerto Princesa International Airport – Flight PR2788 and arrive at Ninoy Aquino International Airport
8:30 PM – 9:15 PM	Commute to Park Inn by Radisson North EDSA and check-in

### Day 3 (June 17<sup>th</sup> 2026)

Morning	Breakfast at hotel
8:30 AM – 8:45 AM	Leave hotel to commute to Philippines Statistics Authority (PSA) Office
9:00 AM – 11:45 AM	Meet with PSA representatives to discuss their experience in environmental-economic statistics and integration with national accounts
12:00 PM – 1:00 PM	Lunch at Vikings Restaurant
1:00 PM – 1:30 PM	Commute to the Department of Environment and Natural Resources (DENR) Central Office (Biodiversity Management Bureau Training Center)
1:30 PM – 3:00 PM	Meet with DENR Representatives to discuss how DENR is transitioning from roadmap and pilot implementation toward full institutionalization of NCA under PENCAS
3:00 PM – 4:30 PM	Visit Ninoy Aquino Parks and Wildlife Center to gain a better understanding of the importance of green spaces in urban planning
5:00 PM – 5:15 PM	Commute from Ninoy Aquino Parks and Wildlife Center back to the hotel
5:15 PM	Leisure time

**Day 4 (June 18<sup>th</sup> 2026)**

6:00 AM Check-out of hotel and commute to Ninoy Aquino International Airport

9:40 AM – 12:10 PM Depart from Ninoy Aquino International Airport – Flight PR730 and arrive at Suvarnabhumi Airport

*\*The schedule may be subject to change as appropriate*

**- End of the Site Visit -**

Detailed meeting agendas from each agency can be referred to in Appendix 5, Appendix 7, and Appendix 9.

## **7. Expected Outcomes**

The expected outcomes of this excursion are for those with decision-making power to gain firsthand understanding of how ecosystems generate tangible economic benefits through NCA. This output aims to build institutional capacity between key-decision makers to engage with NCA initiatives. By meeting counterpart agencies that are working on driving environmental policy, an international network on NCA development which can strengthen ASEAN capacity for environmental conservation and sustainable development. This exchange visit will provide insight into the experiences and lessons learned from the Philippines.

It is anticipated that participants understand the impact of NCA and environmental accounting by seeing how NCA and effective environmental sustainability are practiced.

## 8. Summary of the Meetings

### 8.1 Summary of the meeting with the Palawan Agencies (Puerto Princesa City Environment and Natural Resources Office and Palawan Council for Sustainable Development)

Figure 1 Meeting with the Palawan Agencies



Image source by author (2026)

The meeting began with brief introductions from both the Palawan Agencies and the Thai Delegation. **Dr. Gem B. Castillo** (as TDRI's NCA consultant and Exchange Coordinator) served as the facilitator. Dr. Gem began explaining the background of the Philippines Ecosystem and Natural Capital Accounting System (PENCAS) Act and the Philippine's history of integrating Natural Capital Accounting into its national policy. Philippine's journey of environmental and natural resources accounting began in the early 1990s through joint USAID and UN programs. In 2014, Palawan was chosen as a global pilot site for the UN System of Environmental-Economic Accounting (UN SEEA) and the World Bank's Wealth Accounting and the Valuation of Ecosystem Services (WAVES) project. When the PENCAS Act was passed on 2024 and the successes of NCA pilot programs led to institutionalizing NCA into national policy and financing structures.

**Ms. Benchamaporn Wattanatongchai**, Director of the Biodiversity National Focal Point Section from the Office of Natural Resources and Environment Planning and Policy (ONEP), introduced the "Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable Landscapes" (NCA) Project. She also inquired how Palawan has implemented NCA at the provincial level to exchange experiences with Thailand's experience of developing NCA in Krabi Province.

**Mr. John Portillas**, Chief of the Planning Division for the Palawan Council for Sustainable Development (PCSD) explained the governance mechanisms of PCSD that has allowed Palawan's management of its land and resources use. Palawan operates under a special law, *the Strategic Environmental Plan (SEP) for Palawan Act (1992)*, which created PCSD to have its own office to give autonomy to work with the Puerto Princesa City

Government rather than under. The SEP for Palawan Act mandates an environmental monitoring and evaluation system, even before the PENCAS Act has been passed. Mr. Portillas noted that local leaders are more responsive to economic metrics than traditional scientific data. Looking at GDP numbers alone does not reflect the damage to the environment. The shift to presenting the value of environmental resources and local ecosystems through NCA has captured political attention. While the current staff of PCSD was not involved in the pilot of NCA (in 2014), the current ecosystem accounts were utilized to resolve conflicting stakeholder interests over land use. An example given was how tension was managed between allowing mining activities as opposite to preserving those areas for agriculture and fisheries.

**Atty. Carlo B. Gomez**, Head of Puerto Princesa City Environment and Natural Resources Office, mentioned that while their local (NC) accounts are still in the infancy stage (at the local government level), Puerto Princesa has successfully created three active accounts: 1) recreational services, 2) clean water, and 3) water quality. NCA is used as a tool to link the environment to the economy. Atty. Gomez mentioned that the local government charges a 150 pesos fee (81.40 THB or 2.47 USD) for all non-resident visitors (tourists and non-Palawan residents) to fund a special account for environmental infrastructure-related uses. This fee serves as a policy instrument drawn from NCA concepts of monitoring carbon footprints. The City Government is working with airlines to integrate this fee directly into flight tickets for seamless collection. This initiative aims to encourage tourists to see the impact of how the environment is conserved with the fee (similar to the principles of payment for ecosystem services). In terms of how ecological damages for economic activities were quantified, the city used the water quality accounts to track the frequency of harmful algal bloom and to accurately estimate the subsequent loss of income for local fishermen due to poor water quality. The data translated into monetary terms can pave way for targeted compensation programs, which can be applied to other local issues such as food security. As part of NCA, GIS (Geographic Information System) data is used; the local government utilized GIS and land exploration data to identify areas with high potential for large-scale mining. These areas are then deliberated declared those areas as “core zones” (strictly no-touch areas) in their land-use plan, supporting sustainable land-use in Palawan.

A presentation of Palawan’s experience in streamlining NCA into the government sector was presented by **Dr. Arnica Mortillero**, PCSD Chief NCA Section Officer (sample presentation slides can be referred to in Appendix 6). The presentation began with the background context of the institutionalization of NCA in the Philippines, the foundational concepts of NCA and how the PSCD has utilized NCA in policy making and planning. NCA is used as a tool for environmental monitoring, to realize the losses and benefits of human activity, and to use easy to understand language and metrics. One of the PSCD’s sample works, GIS data was integrated with NCA to demonstrate forest loss. The spatial mapping let local leaders visibly see the “hotspots” of environmental degradation, such as closed forests being converted to grasslands. To demonstrate the severity of resources loss, ecological damage such as loss of seagrass (which provides a service to marine species) is valued into monetary terms using the “social cost of carbon”. Presenting the loss as “66 million USD” signals more political urgency than reporting a loss of “379 hectares”. **Ms. Suhathai Praisankul**, Fisheries Biologist, Senior Professional

Level (from the Department of Marine and Coastal Resources) inquired whether social cost of carbon was used to calculate carbon loss or damages. **Dr. Gem B. Castillo** answered that social cost of carbon is a global standard; however, it can differ between countries (different local contexts). The next portion of the presentation was focused on the challenges and opportunities. The main challenges were maintenance of the accounts after foreign-funded projects ended, sustaining the personnel capacity to update these highly technical accounts, and staff turnover often forces the agency to start from the beginning. However, the PENCAS Act presents an opportunity to institutionalize these roles and secure dedicated government funding.

**Dr. Adis Israngkura**, NCA Project Manager, presented the Provincial SEEA the TDRI team developed for Krabi Province. The Provincial SEEA consists of five accounts: 1) Ecosystem Extent Account, 2) Ecosystem Condition Account, 3) Ecosystem Services Account – Physical, 4) Ecosystem Services Account – Monetary, and 5) Ecosystem Monetary Asset Account. The methods of how each account was calculated were briefly discussed, such as using market value of resources, using the benefit transfer method, hedonic price method, and travel cost method. Dr. Adis also presented other notable activities the NCA project has done, namely, a “migratory bird watching tour”, a Market-Based Instrument (MBI) using the concept of Payment for Ecosystem Services (PES).

**Figure 2** Meeting with the Palawan Agencies - Thai Delegation



Images source by author (2026)

**Figure 3** Meeting with the Palawan Agencies - Senior Level Officers



Images source by author (2026)

**Figure 4** Group Photo with the Representatives from Palawan



Images source by author (2026)

## 8.2 Summary of the meeting with the Philippines Statistics Authority (PSA)

The meeting began with brief introductions from PSA, REECS, and the Thai Delegation. The meeting proceeded with opening remarks from Assistant Secretary **Rosalinda P. Bautista**, Deputy National Statistician. Assistant Secretary Rosalinda explained the timeline of how the PENCAS Act was passed and its significance as a legislative milestone for the Philippines. The PENCAS Act transitioned NCA beyond foreign-funded projects into an institutionalized mandate. Traditional metrics such as GDP treats nature as invisible. The PENCAS “corrects” this matter by systematically measuring environmental resources such as economic assets, quantifying biodiversity and life-sustaining services. By quantifying natural capital in physical and monetary terms, policymakers gain evidence-based indicators to inform sustainable policies, natural resources allocation, and environmental impact assessments. For effective implementation of PENCAS, PSA is conducting workshops across the country with local government units and agencies to promote data sharing, build technical capacity, and clarify roles.

**Figure 5** Presentation by Mark Pascasio



Image source by author (2026)

Assistant National Statistician, **Mark C. Pascasio** (Macroeconomic Accounts Service) gave a presentation on the overview of PSA and its pivotal role in Natural Capital Accounting (sample presentation slides can be referred to in Appendix 8). Environmental accounts were previously managed under the macroeconomic accounts service with traditional metrics such as GDP and GNI. However, to meet growing stakeholder demands and the mandates of the PENCAS Act, the PSA established a separate (independent) service, the Environment and Natural Resources Accounts Division dedicated to compiling environmental accounts. For subnational accounting, PSA compiles regional and provincial GDP for 82 provinces and 33 highly urbanized cities, which will serve as the baseline data for future subnational accounting. **Dr. Adis** inquired on how their land use account was developed. The PSA team answered that they are partnering with the Philippine Space Agency (PhilSA) to utilize satellite images for the account and to visually demonstrate the changes in ecosystem areas (extent). **Mr. Prawit Banjong**, Statistician, Senior Professional Level (from the National Statistics Office) inquired on the working mechanisms in training statisticians in a centralized system. PSA representatives answered that PSA relies on continuous “in-house” learning, along with technical assistance from international development partners, such as the World Bank, UNESCAP, and REECS to build the highly specialized skills needed for NCA.

**Figure 6** Presentation by Virginia Bathan

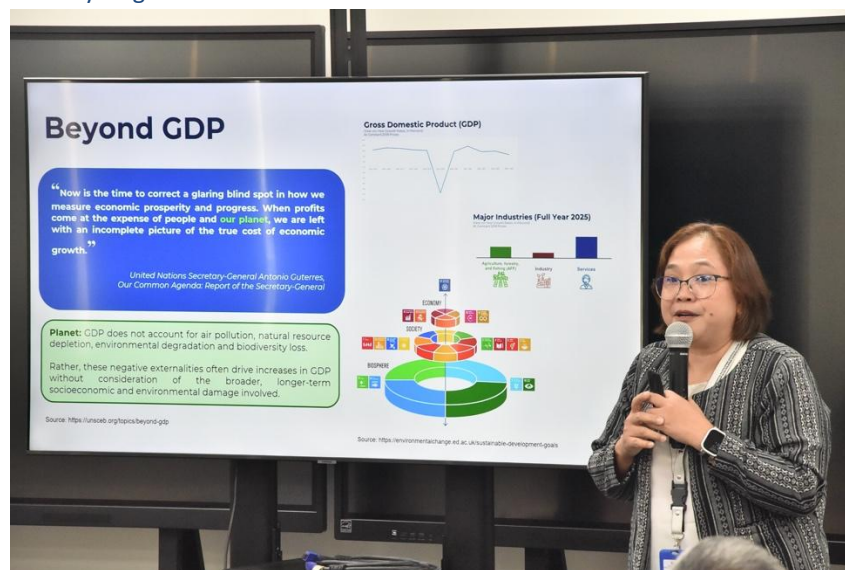


Image source by author (2026)

Another presentation was given by Chief Statistical Specialist **Ms. Virginia M. Bathan**, Officer-in-Charge for the Environment, Natural Resources, and Ecosystem Accounts Service Division (sample presentation slides can be referred to in Appendix 8). The presentation began with the notion of how economic growth comes at the expense of natural resources and relies on ecosystem services that are “invisible”, continuing from what Ms. Rosalinda mentioned earlier. NCA provides a framework to measure the true cost of economic growth reflected in metrics such as GDP and to account for the negative externalities (environmental degradation). The Philippines uses the internationally accepted, UN SEEA Central framework and the SEEA Ecosystem Accounting framework to compile data from various ministries (government agencies) into a single system: NCA. The benefit of the PENCAS Act is dedicated funds for NCA. PENCAS’ implementing rules and regulations (IRR) requires inter-

agency coordination, which resulted in 15 different agencies signing the agreement. The Philippines journey of NCA follows their 6-component roadmap, starting with developing individual accounts such as mineral, water, energy, land, and site-specific ecosystem accounts. The ultimate goal (in the current stage) is to calculate natural capital adjusted macro indicators.

PSA plays a pivotal institutional role in leading PENCAS implementation and account compilation. In this matter, PSA works alongside the Department of Economy, Planning, and Development (DEPDev) The current mechanism of how Filipino agencies compile environmental accounts is PSA (and DENR for site-specific ecosystem account) compiles data (from its own divisions and other agencies) to develop the environmental accounts and disseminates the information to policymakers or other stakeholders to make informed decisions.

Currently, PSA has regular updates on the following environmental-economic accounts (on the national level): 1) mineral accounts, 2) energy accounts, and 3) water flow accounts. A technical working group has been established for NCA and an interagency committee on environment and natural resources statistics. Various training workshops on environmental statistics for capacity building (on the subnational and national level), with 18 regions developing, compiling, and updating their regional environmental accounts and regional environment statistics. The way forward for PENCAS implementation is to centralize data systems to improve information sharing and strengthening coordination mechanisms among implementing agencies to improve policy coherence, streamline operations, and avoid duplication of efforts.

For the discussion portion, **Ms. Suhathai** asked what are the key success factors of NCA. The PSA team answered that the enactment of the PENCAS Act allowed for active information sharing and better coordination among agencies. Continuous contact with the agencies for capacity building and skill development. **Dr. Adis** enquired about potential issues with double counting (the data used to develop natural capital accounts). **Dr. Gem** answered that the Philippines (PSA) accounts use the value added of the ecosystem services, not the market price of the physical assets from ecosystems. The market price calculates the amount of (natural capital) stocks that contribute to economic activity; hence separation of the market and non-market welfare eliminates the issue of double counting. Additionally, there are validation processes for the data used in the accounts. **Dr. Adis** had another question on the valuation of agricultural activities, in which the PSA team and **Dr. Gem** explained that the SEEA-Central Framework gives priority to the provision services of crops, but the SEEA-Environmental Accounting Framework encourages countries to value ecosystem service. **Mr. Mark** added that the valuation methods used in the accounts involve the academic (research) community to reach a consensus. **Ms. Pichayapron Dechsakul**, Plan and Policy Analyst, Professional Level (from the Office of National Economic and Social Development Council) enquired how does the accounts capture the digital economy. **Mr. Mark** answered that with the current development of NCA still needs further advancement, prioritization of efforts is needed. The support of PENAS and 2025 Systems of National Accounts (SNA) recommendations, further advancement into the digital realm may be possible.

**Figure 7** Meeting with the PSA Representatives



Image source by author (2026)

**Figure 8** Group Photos of the Meeting with PSA



Image source by author (2026)

### 8.3 Summary of the meeting with the Department of Environment and Natural Resources (DENR)

The meeting began with welcome remarks from the Department of Environment and Natural Resources (DENR), along with an opening statement from **Undersecretary Jonas R. Leones**. The enactment of PENCAS in May 2024 provided a strong legal foundation to institutionalize NCA, from pilot projects into government policy. It took around five years of continuous dialogue to convince legislators and address opposing views from stakeholders with competing interests over natural resources.

**Figure 9** Welcome remarks by the Undersecretary



Image source by author (2026)

A presentation on the implementation of PENCAS within DENR was given by **Ms. Cheryl Loise T. Leal**, Director of the Policy and Planning Service Unit. Following the PENCAS Act, the DENR issued an administrative order to create a dedicated NCA Technical Working Group (NCA TWG) to ensure that natural capital (accounting) is factored into Environmental Impact Assessments (EIAs) and resource management plans. The rationale behind advancing PENCAS is to recognize ecosystems and its services as assets that generate economic, social, and environmental benefits. The main implementation challenges noted were instrumentation constraints, data and system gaps, institutional fragmentation, and a lack of specialized (technical) workforce.

**Figure 10** Presentation by Director Cheryl Loise T. Leal



Image source by author (2026)

Philippine's NCA experience began in the 1990s with the Philippines Environmental and Natural Resources Accounting Project (ENRAP), a collaborative project with World Bank's WAVES project piloting in Palawan and Laguna de Bay (2013 - 2017), approval of the NCA roadmap in 2022, and the enactment of the PENCAS Act in 2024. Under the PENCAS Act, DENR functions as the main data producer, sending NCA data to PSA and mainstream NCA by integrating NCA into the EIA process. The NCA TWG's objective is to develop a DENR NCA implementation plan (consistent with the NCA roadmap) and coordinate with other agencies to drive institutionalization of NCA. The DENR launched the "Sukat ng Kalikasan" (SnK) toolkit in 2024 to standardize assessments across Philippines' protected areas. Currently, the DENR is working to develop a centralized NCA information system (NCAIS) to consolidate spatial and ecological data, addressing "siloes data".

After the presentation, **Dr. Adis** inquired whether there was opposition to PENCAS prior to the enactment and how that was navigated. **Ms. Rina Rosales**, President of the Resources, Environment, and Economics Center for Studies (REECS) answered that there were many attempts over the years to pass the bill and it was the alignment of scholars (and decision-making figures) that believed in the importance of PENCAS. Before PENCAS data monitoring existed in isolated agency "silos", the mandate of PENCAS allowed for better alignment and coordination between agencies. At the local government level, the financial valuations from NCA data are applied to justify policy instruments such as environmental user fees.

**Dr. Gem** shared an example of a reclamation project in Manila Bay, where NCA was utilized to quantify the costs and benefits of environmental damages that would affect the fishers' livelihoods. Using this information, the government was able to weigh the ecological costs against financial gains, which led to the suspension of the project. It was also pointed out that data collection presents a financial burden. Since the Philippines lacks the

equipment to monitor the watersheds, satellite imaging was relied on to collect data, which required costly on-the-ground validation.

During the discussion portion, **Dr. Adis** presented the Provincial SEEA (5 accounts) made by the TDRI team for Krabi Province. After the presentation, the Undersecretary enquired if the account had been used for competing resources. The TDRI team responded that since the policy issues at the time the project was designed do not align with the current policy issues, there may need to be adjustments to utilize the data from the accounts.

**Figure 11** Group Photos of the Meeting with DENR



Image source by author (2026)

After the exchange session with the DENR representatives, the Thai Delegation went on a walking tour in the Ninoy Aquino Parks and Wildlife Center.

## 9. Key Findings, Observations, and Lessons Learned

### 9.1 Key Findings and Observations

The key findings from the meeting with the Palawan Agencies highlighted that NCA is most effective when it is translated into practical, policy-relevant evidence for local decision-making. Palawan's experience shows that the institutional foundation provided by the Strategic Environmental Plan for Palawan Act and the Environmental Critical Areas Network has enabled local agencies to use spatial and ecosystem data to guide land-use planning, manage competing resource interests, and strengthen environmental protection. The discussions also demonstrated how monetary valuation can make ecosystem loss and benefits more visible to policymakers, such as through estimates of seagrass loss, water quality impacts on fishers' income, and environmental user fees for tourists. Although local NCA implementation remains at an early stage, active accounts on recreational services, clean water, and water quality show how NCA can support targeted compensation, sustainable financing, and stronger justification for conservation measures. Key challenges include maintaining technical capacity, updating accounts after donor-funded projects end, addressing staff turnover, and ensuring continuous data validation; however, the PENCAS Act provides an opportunity to institutionalize NCA roles and secure long-term government support.

The key findings from the meeting with the Philippines Statistics Authority highlighted the importance of a clear institutional structure, legal mandate, and coordinated data system for sustaining NCA implementation. PSA's role under the PENCAS Act demonstrates how NCA can move beyond donor-supported pilot projects into an official statistical function, supported by a dedicated Environment and Natural Resources Accounts Division, inter-agency coordination mechanisms, and regular capacity-building activities. The discussions showed that integrating environmental accounts with national accounts allows natural resources and ecosystem services to be reflected alongside traditional economic indicators such as GDP, helping policymakers better understand the environmental costs of growth. PSA's work on mineral, energy, water flow, land, and site-specific ecosystem accounts also illustrates the importance of standardized frameworks such as the UN SEEA, satellite-based land monitoring, validation processes, and technical partnerships with agencies such as PhilSA and international development partners. Key success factors include strong legislative backing, continuous engagement with data-producing agencies, in-house technical learning, and collaboration with the academic and research community on valuation methods. However, the meeting also emphasized that further progress depends on improving centralized data systems, reducing duplication across agencies, strengthening technical capacity at national and subnational levels, and ensuring that NCA outputs are translated into policy-relevant indicators, including natural capital-adjusted macroeconomic measures.

The key findings from the meeting with the Department of Environment and Natural Resources highlighted DENR's central role in translating the PENCAS Act into practical environmental governance and resource management. The discussions showed that DENR functions not only as a key data producer for PSA, but also as the agency responsible for mainstreaming NCA into Environmental Impact Assessments, protected area management, and resource planning. The creation of a dedicated NCA Technical Working Group and DENR's

administrative order demonstrates how legal mandates can be operationalized through internal coordination structures, implementation plans, and agency-wide technical guidance. DENR's experience also emphasized the importance of moving from fragmented, project-based data collection toward a centralized NCA information system that can consolidate spatial, ecological, and valuation of data across agencies. Practical applications, such as the use of NCA to assess the costs and benefits of the Manila Bay reclamation project and to justify environmental user fees, showed how monetary valuation can strengthen policy decisions by making ecological damage and livelihood impacts more visible. However, the meeting also underscored continuing challenges, including data gaps, high validation costs, limited monitoring equipment, institutional fragmentation, and the need for a specialized technical workforce. Overall, DENR's experience illustrates that effective NCA institutionalization requires strong legislation, sustained inter-agency coordination, reliable data systems, and clear mechanisms for applying NCA evidence directly in environmental decision-making.

## 9.2 Lessons Learned

The lessons learned from this exchange visit include the importance of prioritizing environmental protection in policy through official mandates. The PENCAS Act has enabled the implementation of NCA as an evidence-based tool to justify environmental policy and investments against destructive development plans. A key lesson is that NCA becomes most useful when it is not treated only as a technical accounting exercise, but as a decision-making tool that translates environmental change into indicators that policymakers can understand and apply. The Philippines' experience shows that strong legislation, dedicated institutional roles, and continuous inter-agency coordination are essential for moving NCA beyond pilot projects and into regular government functions. The exchange also highlighted the importance of building reliable data systems that can consolidate information from different agencies, reduce duplication, and support regular updating of accounts over time. At the provincial and local levels, Palawan demonstrated how spatial data, ecosystem valuation, and environmental user fees can be used to guide land-use planning, manage competing resource interests, and finance conservation measures. For Thailand, these lessons suggest that the development of NCA should be linked closely with existing policy priorities, such as tourism management, coastal resource protection, water quality, and provincial land-use planning. Sustained capacity building is also necessary, as NCA requires technical skills in statistics, ecology, valuation, GIS, and policy interpretation. Overall, the visit showed that successful NCA implementation depends not only on producing accounts, but also on ensuring that the results are communicated clearly, institutionalized within government systems, and applied directly to practical policy decisions.

## 10. Conclusion

The exchange visit to the Philippines provided valuable insights into how Natural Capital Accounting can be institutionalized and applied as a practical tool for environmental governance and sustainable development. The Philippines' experience demonstrates that NCA is most effective when supported by a clear legal mandate, strong institutional coordination, dedicated technical capacity, and reliable data systems. Through the PENCAS Act, the Philippines has moved NCA beyond pilot projects and embedded it within government functions, allowing ecosystem and natural resource values to be reflected in national accounting, land-use planning, environmental impact assessment, protected area management, and sustainable financing mechanisms. The discussions with Palawan agencies, PSA, and DENR showed that translating ecosystem changes into physical and monetary indicators can make environmental benefits and losses more visible to policymakers and strengthen evidence-based decision-making.


For Thailand, the lessons from this exchange are highly relevant to the ongoing development of NCA in Krabi Province and future national applications. The visit highlighted the need to connect NCA outputs with concrete policy priorities, including tourism management, coastal and marine resource protection, water quality improvement, land-use planning, and conservation financing. At the same time, the Philippines' challenges—such as fragmented data systems, staff turnover, validation costs, technical capacity gaps, and the need for sustained funding—provide important considerations for Thailand as it strengthens its own NCA framework. Overall, the exchange reaffirmed that NCA should not be viewed only as an accounting exercise, but as a policy instrument that can support balanced decisions between economic development and environmental sustainability.

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## Appendices

### Appendix 1: Sample Letter of Invitation to the Thai Delegates (in Thai)

 **ด่วนที่สุด** **บันทึกข้อความ**

ส่วนราชการ สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม.....  
กองจัดการความหลากหลายทางชีวภาพ โทรศัพท ๐ ๒๒๖๕ ๖๖๘๔.....  
ไปรษณีย์อิเล็กทรอนิกส์ saraban@onep.go.th, (cc) bio.saraban@onep.go.th.....

ที่ ทส.๑๐๑๒.๒/๑๑๒๐๓..... วันที่ ๒๑ พฤษภาคม ๒๕๖๙.....


เรื่อง ขอเชิญเข้าร่วมศึกษาดูงานต่างประเทศเพื่อแลกเปลี่ยนประสบการณ์การจัดทำบัญชีทุนธรรมชาติ ภายใต้โครงการจัดทำบัญชีทุนธรรมชาติเพื่อการตัดสินใจเชิงนโยบายสู่การพัฒนาที่ยั่งยืน (Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable Landscapes: NCA) ณ สาธารณรัฐฟิลิปปินส์



เรียน อธิบดีกรมทรัพยากรทางทะเลและชายฝั่ง

ด้วยสำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม ในฐานะหน่วยงานเจ้าของโครงการ (Executing Agency) ร่วมกับมูลนิธิสถาบันวิจัยเพื่อการพัฒนาประเทศไทย (TDRI) ในฐานที่ปรึกษาโครงการ กำหนดจัดการศึกษาดูงานต่างประเทศเพื่อแลกเปลี่ยนประสบการณ์และนำองค์ความรู้มาประยุกต์ใช้ในการจัดทำข้อมูลบัญชีทรัพยากรของประเทศไทย ภายใต้โครงการจัดทำบัญชีทุนธรรมชาติเพื่อการตัดสินใจเชิงนโยบายสู่การพัฒนาที่ยั่งยืน (Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable Landscapes: NCA) ระหว่างวันที่ ๑๕ - ๑๘ มิถุนายน ๒๕๖๙ ณ สาธารณรัฐฟิลิปปินส์ รายละเอียดตามเอกสารแนบ

สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม พิจารณาแล้วเห็นว่าหน่วยงานของท่านเป็นหน่วยงานที่มีภารกิจที่เกี่ยวข้องกับการจัดทำบัญชีทุนธรรมชาติ จึงขอเชิญท่านหรือผู้แทนจำนวน ๑ ท่าน เข้าร่วมศึกษาดูงานฯ โดย TDRI จะสนับสนุนค่าใช้จ่ายทั้งหมดในการเดินทางและโปรดแจ้งรายชื่อผู้แทนให้สำนักงานนโยบายฯ ทราบ ภายในวันที่ ๒๖ พฤษภาคม ๒๕๖๙ ทั้งนี้ มอบหมายให้นางสาววรรณภา มณีกุล เจ้าหน้าที่วิเคราะห์นโยบายและแผน เป็นผู้ประสานงาน หมายเลขโทรศัพท์ ๐ ๒๒๖๕ ๖๕๕๘ หรือไปรษณีย์อิเล็กทรอนิกส์ nfp.onep@gmail.com

จึงเรียนมาเพื่อโปรดพิจารณา

  
(นางสาววาริรัตน์ พันธุ์มณี)  
รองเลขาธิการฯ ปฏิบัติราชการแทน  
เลขาธิการสำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม

   
ลงทะเบียน เอกสารแนบ

Appendix 2: Sample Letter to the Filipino Agencies (Invitation to Meet)



NRE/2026/059

15<sup>th</sup> May 2026

**Subject: Request for Knowledge Exchange on Natural Capital Accounting during the site visit on 16–17 June 2026**

Dear Hon Secretary Cuna,

Greetings from Thailand.

The Office of Natural Resources and Environment Policy and Planning (ONEP) and the Thailand Development Research Institute (TDRI) highly recognize the Philippines' valuable practical experience in Natural Capital Accounting (NCA).

As Thailand is currently implementing the “Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-Making for Sustainable Landscapes” Project, supported by the Global Environment Facility (GEF), we believe that a peer-to-peer learning exchange would greatly strengthen our implementation capacity. In this regard, we would like to arrange a study visit to Metro Manila and exchange knowledge and experiences with the Department of Environment and Natural Resources and the Philippines Statistical Authority on **17 June 2026**.

The objective of the visit is to facilitate institutional and technical exchanges between Thailand and the Philippines on NCA implementation, ecosystem accounting, biodiversity governance, and the integration of NCA into policy formulation and decision-making processes. Further details are provided in this [concept note](#). The drafted itinerary is attached below with the list of the Thai Delegation.

The Thai delegation will comprise of senior officials from national-level agencies, provincial agencies from Krabi Province, and representatives from TDRI, the project's lead service provider responsible for developing the provincial NCA for Krabi Province.

Considering the role of DENR in advancing Natural Capital Accounting into national planning and decision-making specifically institutionalizing NCA and ecosystem valuations under the PENCAS Act. We would be honored to meet with your office and technical staff to exchange experiences and lessons learned relevant to Thailand's ongoing efforts to strengthen Natural Capital Accounting implementation at the national and provincial levels.

The Office of Natural Resources and Environment Policy and Planning  
Tipco Tower 2 on Rama 6 Road, Phayathai, Bangkok, 10400



We would greatly appreciate the Philippines' support and collaboration in making this exchange a meaningful step toward strengthening NCA implementation in Thailand. Should you require any further information, please contact Ms. Ramida Hansaward, Project Coordinator of the NCA Project, at +66 85 249 7249 or via email at [ramida@tdri.or.th](mailto:ramida@tdri.or.th).

We would sincerely appreciate your kind support and look forward to a fruitful exchange and continued collaboration.

Best regards,

*A. Israngkura*

**Dr. Adis Israngkura**  
Project Manager of the NCA Project  
Thailand Development Research Institute (TDRI)

**HON. JUAN MIGUEL T. CUNA**  
Secretary  
Department of Environment and Natural Resources  
DENR Central Office  
Visayas Avenue, Diliman  
Quezon City

**Copy to:**

1. **ATTY. ANALIZA REBUELTA-TEH, CESO I**, Undersecretary for Finance, Information Systems and Climate Change
2. **CHERYL LOISE T. LEAL, EnP.**, Director, Policy and Planning Service

Appendix 3: Sample Delegate Nomination Letter to the Filipino Agencies



NRE/2026/068

2nd June 2026

**Subject: Nomination of the Thai Agencies to the Thailand–Philippines Natural Capital Accounting Exchange Visit and Institutional Learning Mission, 15-18 June 2026**

Dear Hon Secretary Cuna,

With reference to our letter dated 15 May 2026, inviting your agency to join The Thailand–Philippines Natural Capital Accounting Exchange Visit and Institutional Learning Mission to be held from June 15-18 2026, in Palawan Province and Metro Manila, the Philippines.

In this regard, we would like to nominate delegates to participate in the above-mentioned exchange visit. Their contact details are attached herewith.

Should you require any further information, please contact Ms. Ramida Hansaward, Project Coordinator of the NCA Project, at +66 85 249 7249 or via email at ramida@tdri.or.th.

Yours sincerely,

**Dr. Adis Israngkura**  
Project Manager of the NCA Project  
Thailand Development Research Institute (TDRI)

**HON. JUAN MIGUEL T. CUNA**  
Secretary  
Department of Environment and Natural Resources  
DENR Central Office  
Visayas Avenue, Diliman  
Quezon City

**Copy to:**

1. **ATTY. ANALIZA REBUelta-TEH, CESO I**, Undersecretary for Finance, Information Systems and Climate Change
2. **CHERYL LOISE T. LEAL, EnP.**, Director, Policy and Planning Service

Thailand Development Research Institute Foundation (TDRI)  
565 Soi Ramkhamhaeng 39, Phlabphla, Wang Thonglang, Bangkok 10310

Appendix 4: Sample Letter Response to Delegation Nomination



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
KAGAWARAN NG KAPALIGIRAN AT LIKAS NA YAMAN



**MEMORANDUM**

**TO :** **THE ASSISTANT SECRETARY**  
Policy, Planning, International Affairs and Climate Change  
Field Operations - Mindanao, *and*  
Concurrent Director of Biodiversity Management Bureau

**THE SERVICE DIRECTORS**  
Policy and Planning Service  
Climate Change Service  
Knowledge and Information Systems Service

**THE BUREAU DIRECTORS**  
Forest Management Bureau  
Ecosystems Research and Development Bureau

**ATTN :** **NCA-TWG MEMBERS**

**FROM :** **THE UNDERSECRETARY**  
Policy, Planning and International Affairs, *and*  
Chair of the DENR NCA Steering Committee

**SUBJECT :** **THAILAND-PHILIPPINES NATURAL CAPITAL ACCOUNTING (NCA) KNOWLEDGE EXCHANGE**

**DATE :** JUN 10 2026

This has reference to the invitation letter from the Thailand Development Research Institute (TDRI) dated 15 May 2026 for a knowledge exchange on Natural Capital Accounting (NCA). The details of the exchange visit request can be accessed through the following link: <https://bit.ly/4djl6UU>.

In line with this, we would like to invite your office to participate in this engagement on **17 June 2026 (Wednesday), 1:30 PM onwards, at the Biodiversity Management Bureau (BMB) Training Center, Ninoy Aquino Parks and Wildlife Center, Quezon City** as core members of the NCA TWG, who can offer valuable insights on the institutionalization of NCA within the DENR with the visiting delegation.

Kindly confirm your attendance **NLT 11 June 2026** through our NCA focal, For. Angelo Bon Balmes, via email at [odpps@denr.gov.ph](mailto:odpps@denr.gov.ph) and/or via Viber/phone at (+63) 946 3644 896.

Your participation in this meeting will be highly appreciated.

  
ATTY. JONAS R. LEONES



Visayas Avenue, Diliman, Quezon City 1100, Philippines  
[www.denr.gov.ph](http://www.denr.gov.ph)



**Thailand–Philippines Natural Capital Accounting Exchange Visit  
Afternoon Learning Session**

**16 June 2026 | Puerto Princesa City, Palawan**

**Theme:** *Operationalizing Natural Capital Accounting: Lessons from Thailand, Palawan, and Puerto Princesa City*

<b>TIME</b>	<b>ACTIVITY</b>	<b>LEAD</b>
<b>2:30 – 2:35 PM</b>	Opening and Introduction of Participants	REECS / Secretariat
<b>2:35 – 2:40 PM</b>	Welcome Remarks	<b>ATTY. CARLO T. GOMEZ,</b> City ENRO, Puerto Princesa City
<b>2:40 – 2:45 PM</b>	Welcome Message	<b>ATTY. TEODORO JOSE S. MATTA,</b> Executive Director, PCSD
<b>2:45 – 2:50 PM</b>	Overview of the Exchange Visit Objectives	REECS / TDRI
<b>2:50 – 3:05 PM</b>	Thailand Experience in Natural Capital Accounting: Krabi Provincial Ecosystem Accounts and Lessons Learned	Thailand Delegation (TDRI/ONEP)
<b>3:05 – 3:15 PM</b>	Palawan Experience: Biodiversity Governance, SEP Law, ECAN Framework, and Emerging NCA Applications	PCSD
<b>3:15 – 3:25 PM</b>	Philippine Journey in Natural Capital Accounting: From PEENRA/ENRAP, WAVES to PENCAS Institutionalization	PCSD / REECS
<b>3:25 – 3:35 PM</b>	Puerto Princesa City NCA Pilot: Applications in Local Planning, Watershed Management, and Natural Resource Governance	Puerto Princesa City ENRO
<b>3:35 – 3:50 PM</b>	Open Forum and Exchange of Lessons Learned	Moderator: REECS
<b>3:50 – 4:00 PM</b>	Synthesis, Closing Remarks, and Group Photo	Thailand Delegation, PCSD, City ENRO, and REECS

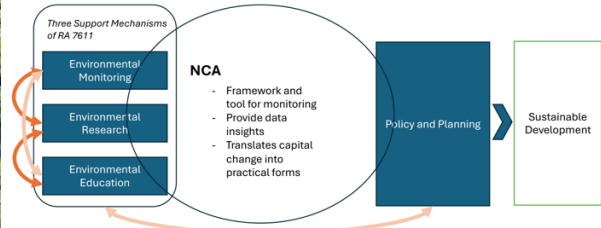
# Appendix 6: Sample Presentation Slides from the Palawan Agencies

## Streamlining Natural Capital Accounting in the Government Sector

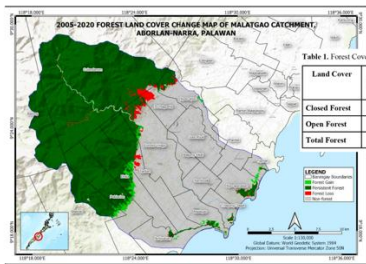
Palawan Experiences, Best Practices and Challenges



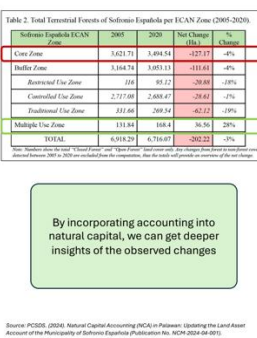
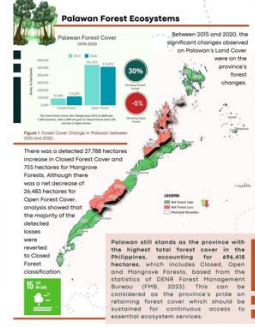
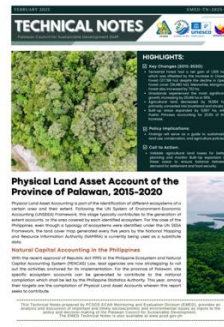
## NCA in PCSDS



## Sample Works

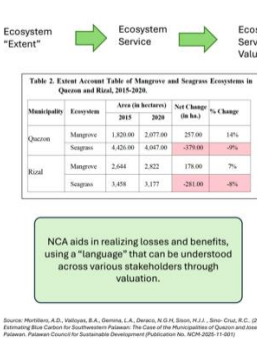


Using GIS, NCA can help provide insights in monitoring by presenting changes in "stocks" of the resource/capital between two time periods



Land Asset Account	Core Zone		Belt Zone		Multiple Use Zone	
	Closed Forest	Open Forest	Closed Forest	Open Forest	Closed Forest	Open Forest
Opening Stock	2,457.0	1,164.7	2,598.8	565.9	48.6	83.2
Addition	0.0	2,474.5	0.0	2,667.5	0.0	141.7
From Annual Crop		1.7		49.2		12.0
From Brush/Slash		287.8		409.4		71.2
From Mangrove Forest		174		50.9		10.8
From Closed Forest		2,167.0		2,129.1		3.8
From Inland Water		89.9		16.8		0.6
From Mangrove Forest		1.2		1.2		0.0
From Open Forest		1.8		70.1		61.6
Reduction	-2,457.0	-1,147.7	-2,598.8	-100.3	-46.6	-56.5
To Annual Crop		1.7		49.2		12.0
To Brush/Slash		126.3		114.3		18.8
To Closed Forest		92.8		0.8		0.2
To Open Forest		162.9		26.5		11.4
To Inland Water		89.9		16.8		0.6
To Mangrove Forest		2,467.0		4.9		1.8
To Perennial Crop		0.6		8.7		22.4
Closing Stock	0.0	1,894.5	0.0	1,893.1	0.0	169.8
Net Change in Stock	-2,457.0	2,329.8	-2,598.8	2,472.7	-48.6	83.2

By incorporating accounting into natural capital, we can get deeper insights of the observed changes



NCA aids in realizing losses and benefits, using a "language" that can be understood across various stakeholders through valuation.


Ecosystem	Year	Value (US\$)	Change in Value* (US\$)	Change in Value* (PHP)
Quizon	2015	636,040,625.22		
	2020	725,855,153.07	89,814,527.85	5,209,242,615.30
Seagrass	2015	773,945,113.33		
	2020	797,571,910.00	23,626,796.67	1,484,845,709.14
Rizal	2015	954,096,270.92		
	2020	986,212,441.96	32,116,171.04	1,607,957,928.32
Seagrass	2015	694,677,866.67		
	2020	555,540,810.00	-139,137,056.67	-2,849,922,606.86

## Other reports produced using NCA



Source: Whittaker, A.D., Volkman, B.A., Domingo, L.A., Chorro, N.G.H., Basso, H.J., Shin, C.H., R.C. (2020). Estimating Blue Carbon for Southeastern Palawan: The Case of the Municipality of Quizon and Rizal, Palawan. Palawan Council for Sustainable Development (Publication No. NCASD-2020-14-006)

Source: PCSDS (2020). National Capital Accounting (NCA) in Palawan: Updating the Land Asset Account of the Municipality of Sofronio Espoñola (Publication No. NCDA-2020-04-005)




**Study Visit of the Thai Delegation on Natural Capital Accounting**  
17 June 2026 | 9:00 AM - 11:30 AM

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## P R O G R A M M E

9:00 AM	Arrival at PSA
9:10 AM	Group photo
9:15 AM	Introductions
9:20 AM	Opening Remarks: Asst. Sec. Rosalinda P. Bautista
9:30 AM	Presentation 1: Overview of the PSA, MAS, and MAS-ENRAD
10:00 AM	Presentation 2: The PENCAS Act and PSA's current initiatives on Natural Capital Accounting
10:30 AM	Open Discussion
11:00 AM	Message from the Thai delegation
11:10 AM	Evaluation
11:20 AM	Closing

**Evaluation Form**


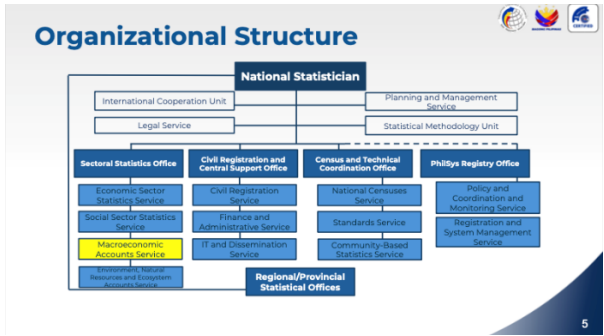
Appendix 8: Sample Presentation Slides from the Philippines Statistics Authority

# Overview of the Philippine Statistics Authority

*Its Pivotal Role in Natural Capital Accounting*

**Mark C. Pascasio**  
Macroeconomic Accounts Service

Knowledge Exchange on Natural Capital Accounting  
17 June 2026

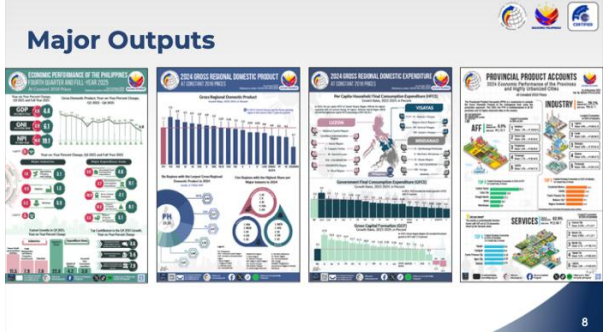



## Environment and Natural Resources Accounts Division

### About ENRAD


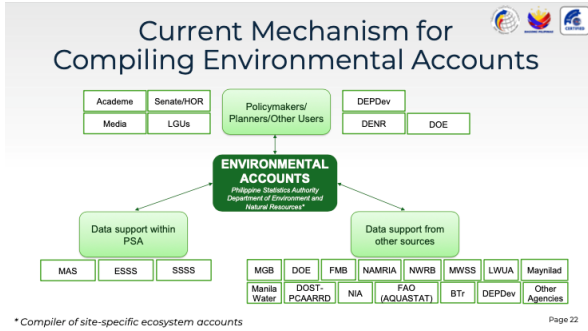
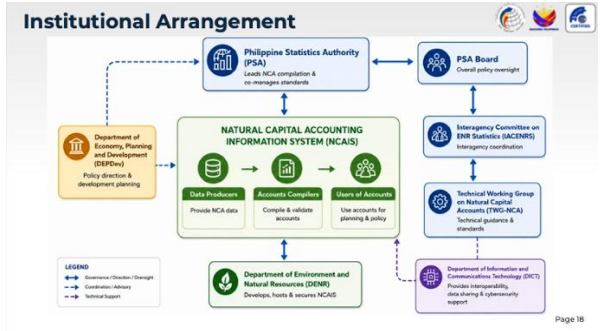
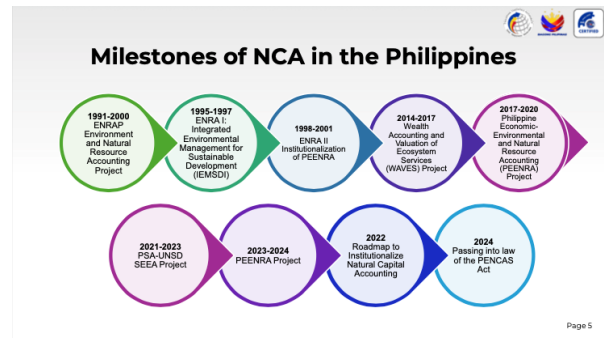
Develops and maintains the compilation as well as conducts research and studies for the improvement of **natural capital accounts, environmental accounts, and ecosystem accounts**

Develops and maintains statistics and indicators on environment, climate change, and disaster to be able to provide **environment, climate change, and disaster** statistics-based information support system by region



## The PENCAS Act and PSA's Current Initiatives on Natural Capital Accounting

**VIRGINIA M. BATHAN, RPF, MM**  
(Chief Statistical Specialist)  
Officer-in-Charge  
Environment, Natural Resources, and Ecosystem Accounts Service

## Environmental-Economic Accounts



The block features photos from field visits and training workshops on Land Asset Accounts in Calabarzon and NCR (Luzon Cluster), Eastern Visayas Region, Davao Region, Mindanao Cluster, and Zamboanga Peninsula.

**Thailand–Philippines NCA Knowledge Exchange**

17 June 2026 | 1:30 p.m.

*BMB Training Center, Ninoy Aquino Parks and Wildlife Center, Quezon City*

**PROGRAM OF ACTIVITIES**

<b>TIME</b>	<b>ACTIVITY</b>
1:00 – 1:30 PM	Registration of Participants
1:30 – 1:40 PM	Opening and Acknowledgment of Participants
1:40 – 1:50 PM	<b>Welcome Remarks</b>  <b>Atty. Jonas R. Leones</b> Undersecretary for Policy, Planning and International Affairs
1:50 – 2:00 PM	<b>Message from the Thai Delegation</b>  <b>Mr. Bannaruk Sermthong</b> Secretary General, Office of Natural Resources and Environmental Policy and Planning (ONEP), Thailand
2:00 – 2:10 PM	Photo Opportunity
<b>KNOWLEDGE EXCHANGE SESSION</b>	
2:10 – 2:30 PM	<b>Presentation:</b> Implementation of Republic Act No. 11995 or the Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act within the DENR  <b>Dir. Cheryl Loise T. Leal</b> Director, Policy and Planning Service
2:30 – 2:50 PM	<b>Sharing of Experience:</b> Thai Delegation’s Experience on the Site Visit  Thailand Development Research Institute (TDRI) / Office of Natural Resources and Environmental Policy and Planning (ONEP)
2:50 – 3:10 PM	<b>Open Forum:</b> Knowledge Exchange and Discussion Session
3:10 – 3:20 PM	Synthesis of Discussion
3:20 – 3:30 PM	Closing Remarks
<b>SITE VISIT</b>	
4:00 – 5:00 PM	<b>Guided Visit to the Ninoy Aquino Parks and Wildlife Center (NAPWC)</b>  Overview of the Ninoy Aquino Parks and Wildlife Center (NAPWC): Biodiversity Conservation, Urban Ecosystem Management, and Ecosystem Services  <b>Biodiversity Management Bureau (BMB)</b>
5:00 PM	End of Program

# Appendix 10: Sample Presentation Slides from the Department of Environment and Natural Resources

## Thailand–Philippines Knowledge Exchange on Natural Capital Accounting (NCA)

BMB Training Center, Ninoy Aquino Parks and Wildlife Center, Quezon City  
17 June 2026 | 1:30 p.m.

### Rationale

#### Why is the Philippines advancing PENCAS?

1. **Recognizing the value of natural capital and ecosystem services** through a systematic framework aligned with the SEEA Ecosystem Accounting (SEEA-EA) framework, and recognizing ecosystems as assets that generate economic, social, and environmental benefits.
2. **Informing evidence-based policies and investments** by providing information on the stocks and flows of natural capital and identifying priority interventions and policy gaps
3. **Supporting national and local decision-making** by enabling DENR field offices to prioritize conservation, protection, and restoration initiatives using localized data, while providing development partners with standardized information for sustainable investments and Public-Private Partnerships (PPPs).
4. **Promote sustainable development and long-term resilience** by ensuring that policies, programs, and investments contribute to the proper management of ecosystems and their benefits for present and future generations.

### Introduction to NCA and the PENCAS Act

#### 2022 NCA Roadmap

Serves as a roadmap to strategically advance the integration of the concept and value of ecosystems in planning and achieving development priorities forward.

Includes the strategic guidance on the national implementation of NCA from 2022–2040, identifying priority sites and ecosystem services, institutional arrangements, data requirements, as well as its implementation phases.

**RA 11995: Philippine Ecosystem and Natural Capital Accounting System (PENCAS) Act**  
A legal foundation for the budgeting and conduct of NCA-related activities that encompass the collection of environmental data for the establishment and update of ecosystem accounts, valuation and compilation of relevant statistics, organizational and capacity development and creation of the NCA Information System (NCAIS).

**DENR Roles based on the NCA Roadmap**

### Functions of DENR on PENCAS

© PENCAS Act, RA 11995, Sec. 7 (b)

- **Main Data Producer:** Shall be responsible as the main producer of NCA data to Philippine Statistics Authority (PSA), with the participation of its concerned DENR offices, bureaus, and attached agencies;
- **Site-specific Accounting:** Spearhead the establishment of site-specific ecosystem accounts;
- **Mainstreaming:** Integrate NCA in the **Environmental Impact Assessment (EIA)** process, and ensure that the natural environment, ecosystem services, and natural capital are framed as opportunities, benefits or assets that may be put at risk;
- Ensure the wide availability of frameworks, tools, methods, and skills including, but not limited to, the **Extractive Industries Transparency Initiative (EITI)** and use of available temporal and spatial NCA data in the conduct of EIA.

### Applications of NCA

Common platform for evidence-informed and scenario-based planning, investment programming, target-setting, monitoring and evaluation

Inputs to issuing permits or clearances for extractive activities

Inputs to DENR planning tools such as IWMPs, FLUPs, PAMPs, and evaluation tools such as Environmental Impact Assessment, Strategic Environmental Assessment, comparative analysis of alternative natural resource management options, greening the value chain and enhancing the circular economy

**Section 5 of DAO 2025-07**

Inputs to Regulatory Impact Assessment

Basis for Ecosystem Valuation and setting up payments for ecosystem services

Basis for Post-Disaster Needs Assessment and Disaster Rehabilitation and Recovery.

Basis for Environmental Damages/Fines/ Penalties, fees and charges of tenural instruments, and all other economic instruments by the DENR

### Functions of DENR NCA TWG

- Review and analyze outputs, recommendations, and best practices from previous NCA research and initiatives
- Develop technical guidance notes regarding data generation, collection, handling, sharing, security, privacy, management protocols, methodologies, and process flows
- Develop a DENR NCA Implementation Plan consistent with the NCA Roadmap, including specific activities, indicators, budgets, and timelines
- Create sub-TWGs as needed to implement specific activities within the NCA Work Program
- Develop appropriate policy issuances for the implementation of NCA

### DENR NCA Implementation Plan (IMPLAN)

A strategic document outlining organizational needs, information systems, and funding mechanisms across three main workstreams, including their activities and deliverables:

Workstream 1 Organizational Development and Human Resources	Workstream 2 Data Collection, Analysis and Information Management	Workstream 3 Implementation Support and Supervision
<ul style="list-style-type: none"> <li>• Submission of Plantilla Positions to DBM as well as establishment of dedicated NCA units within DENR to manage and sustain NCA activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of new ecosystem accounts identified priority areas under the NCA Roadmap</li> <li>• Piloting of NCA integration in Watershed Characterization and Vulnerability Assessment (WCVA)</li> <li>• Development of the NCA Information System (NCAIS), including data protocols and process flow in priority Ecosystem Accounts</li> <li>• Identification of Data Collection Instruments based on Priority ES</li> </ul>	<ul style="list-style-type: none"> <li>• Policy Use and Application:                             <ul style="list-style-type: none"> <li>◦ Integration of site-specific accounting outputs into planning and decision-making.</li> <li>◦ Ongoing NCA alignment in Payment for Ecosystem Services (PES);</li> <li>◦ Alignment of priority sites in 2022 NCA Roadmap with the priority sites of ENR Framework Plan 2025–2040</li> </ul> </li> <li>• Endorsement of Policy Briefs with relevant NGAs and LGUs</li> <li>• Development of DENR NCA Technical Guidance Notes</li> </ul>

### Established Site-specific Ecosystem Service Accounts

Eight (8) Established Site-specific Ecosystem Service Accounts

### NCA Key Initiatives and Tools in Action

**Sukat ng Kalikasan (SnK) Toolkit**  
Launched in 2024, this toolkit serves as a standardized, science-driven guide for assessing and managing natural resources across protected areas.

**Mainstreaming of the Green Assessment Framework (GAF)**  
A multi-stage framework designed to assess biodiversity and ecosystems before and after disasters, primarily mainstreamed by the DENR-Climate Change Service (CCS).

**Integration of Watershed Characterization and Vulnerability Assessment (WCVA) with UN-SEEA Framework**  
A scientific assessment tool used to evaluate the physical, biological and socio-economic conditions of watersheds, currently being enhanced by the DENR-Ecosystems Research and Development Bureau (ERDB) through integration with the UN-SEEA Framework.

### Key Implementation Challenges

**Instrumentation Constraints.** Limited access to monitoring equipment forces a continued reliance on proxy data rather than accurate baseline site-specific data

**Insufficient human resources.** Implementation is constrained by a lack of in-house technical expertise, cross-sectoral specialization, and a need for permanent positions

**Institutional Fragmentation.** Requires clearer coordination mechanisms across implementing agencies

**Data and System Gaps.** There is a lack of standard data process flows, data gaps in marine and biodiversity datasets, and the NCA Information System (NCAIS) is not yet fully operational

**Insufficient knowledge transfer.** Existing capacity-building and training initiatives on NCA are fragmented, limited in scope, and unevenly implemented across agencies and regions. There is a lack of capacity in valuation and macroeconomic integration expertise.

Appendix 11: Sample Presentation Slides TDRi Prepared for Discussion

**Integration of Natural Capital Accounting in public and private sector policy and decision-making for sustainable landscapes**

Adis Israngkura  
Advisor for Resource Sustainability and Mitigation Policy, TDRi  
16-17 June 2026



**Ecosystem Extent Account**

Realms	Terrestrial	Freshwater	Marine	Physical	Monetary
Biomes	13 Biomes	13 Biomes	13 Biomes	13 Biomes	13 Biomes
Ecosystem Functional Group (EFG)	19 Ecosystem Functional Groups	19 Ecosystem Functional Groups	19 Ecosystem Functional Groups	19 Ecosystem Functional Groups	19 Ecosystem Functional Groups
Opening value (2016)	4,503.80	26,649.03	5,287.58	36,440.41	36,440.41
Ecosystem enhancement	8,674.36	5,301.93	772.65	14,748.93	14,748.93
Ecosystem degradation	(8,196.02)	(8,901.86)	(452.66)	(17,550.54)	(17,550.54)
Ecosystem conversions					
Additions	371.66	564.56	5.88	942.10	942.10
Reductions	(328.13)	(572.45)	(5.45)	(906.02)	(906.02)
<b>Net change in value</b>	<b>521.86</b>	<b>(3,607.82)</b>	<b>320.43</b>	<b>(2,765.53)</b>	<b>(2,765.53)</b>
Closing value (2020)	5,025.66	23,041.21	5,608.01	33,674.89	33,674.89

**Ecosystem Condition Account - Freshwater**

SEEA Ecosystem Condition Typology Class	Variables	Variable values observed	Reference level values	Indicator values (Percent)	Indicator weight	Indicator value
Physical state	Days Not Available	0	100	0.00	0.10	0.00
Chemical state	WQI at Cagayan The Ram Station	100	100	1.00	0.10	0.10
Biological state	WQI at Kibang Ya Station	100	100	1.00	0.10	0.10
<b>Total abiotic</b>					0.30	0.20
Structural state	Days Not Available	0	100	0.00	0.10	0.00
Functional state	WQI at Cagayan The Ram Station	100	100	1.00	0.10	0.10
WQI at Kibang Ya Station	100	100	1.00	0.10	0.10	
<b>Total biotic</b>					0.40	0.40
<b>Total Ecosystem Condition</b>					0.70	0.60

**Ecosystem Service Account - Physical Use**

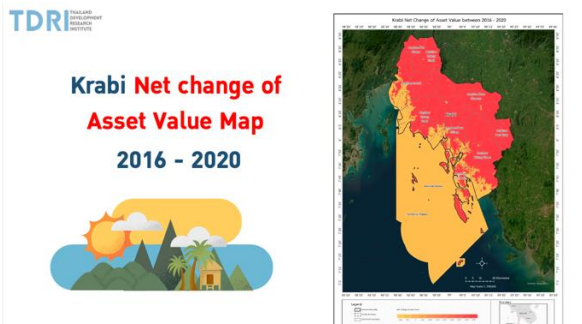
Use	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Food and feed	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Energy	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Manufacturing	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Construction	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Transportation	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Information and communication	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Health and social consumption	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Other	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00

**Ecosystem Service Account - Monetary Use**

Use	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Food and feed	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Energy	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Manufacturing	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Construction	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Transportation	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Information and communication	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Health and social consumption	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00
Other	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00	1,521.00

**Ecosystem Monetary Asset Account**

	Freshwater (F)	Terrestrial (T)	Marine (M+MFT+MT)	Total
Opening value (2016) (MB)	4,503.80	26,649.03	5,287.58	36,440.41
Ecosystem enhancement	8,674.36	5,301.93	772.65	14,748.93
Ecosystem degradation	(8,196.02)	(8,901.86)	(452.66)	(17,550.54)
Ecosystem conversions				
Additions	371.66	564.56	5.88	942.10
Reductions	(328.13)	(572.45)	(5.45)	(906.02)
<b>Net change in value</b>	<b>521.86</b>	<b>(3,607.82)</b>	<b>320.43</b>	<b>(2,765.53)</b>
Closing value (2020) (MB)	5,025.66	23,041.21	5,608.01	33,674.89



**INTEGRATION OF NATURAL CAPITAL ACCOUNTS INTO POLICY DIALOGUE INVOLVES BLENDING NATURAL ASSET VALUES IN PROVINCIAL DEVELOPMENT AGENDA**

- Meeting with the Budget Bureau (BB) on April 29, 2024, on the Medium-Term Budget Framework (MTBF).
- Meeting with the Ministry of Tourism and Sports on May 9, 2024, on the tourism development plans.
- Meeting with the National Economic and Social Development Council (NESDC) on May 6, 2024, on the 14th National Development Plan.
- Meeting with the Office of the National Water Resources Council (ONWRC) on May 19, 2024, on the water resources development plan.
- Joint Public and Private Sector Committee for Economic Problem Solving (LPPCC) in Krabi Province on May 26, 2024.

**Investment in Wastewater Treatment Systems**

Wastewater Treatment Programs in Response to Consultation:

- Wastewater Discharge Advisory, Inspection, and Monitoring.
- Investment in Wastewater Treatment Units at Sri Bor Ya Islands to improve the seawater quality in the seagrass area.
- Investment in Wastewater Treatment Units at Kho Lanta Islands to accommodate the future increase in visitation from the new bridge.

*This document was sent to the delegates prior to the exchange visit (some details may differ from the actual visit)*

## คู่มือการเดินทาง

กิจกรรม 3.2.3 ศึกษาดูงานบัญชีทุนทางธรรมชาติ เพื่อส่งเสริมและให้ความรู้เกี่ยวกับระบบบัญชีทุนทางธรรมชาติสำหรับผู้มีอำนาจตัดสินใจและนักวิจัย

ภายใต้โครงการ Integration of Natural Capital Accounting  
in Public and Private Sector Policy and Decision-making  
for Sustainable Landscapes (NCA)



## คณะผู้แทนไทย

เข้าร่วมการศึกษาดูงาน เรียนรู้และแลกเปลี่ยนประสบการณ์การทำบัญชีทุนทางธรรมชาติ

จากประเทศในอาเซียนที่มีประสบการณ์จัดทำบัญชีทุนทางธรรมชาติ

ระหว่างวันที่ 15-18 มิถุนายน 2569

ณ เกาะปาลาวันและกรุงมะนิลา สาธารณรัฐฟิลิปปินส์

ลำดับ	ชื่อ	ตำแหน่ง	การติดต่อ
<b>สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม</b>			
<b>กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม</b>			
1	นายบรรณารักษ์ (Head of Delegates)	เลขาธิการสำนักงาน	Tel./Fax: (+66) 2 265 6558 E-mail:
2	นางสาวเบญจมาภรณ์ วัฒนธงชัย	ผู้อำนวยการกลุ่มงานประสานงานกลาง อนุสัญญา	Tel./Fax: (+66) 2 265 6558 E-mail:
3	นายพิเชฐ โสภณแพทย์	นักวิชาการสิ่งแวดล้อมชำนาญการ	Tel./Fax: (+66) 2 265 6558 E-mail:
4	นางสาวสุประวีณ์ คูธนเสถียร	เจ้าหน้าที่วิเคราะห์นโยบายและแผน	Tel./Fax: (+66) 2 265 6558 E-mail:
5	นางสาววรรณภา มณีกุล	เจ้าหน้าที่วิเคราะห์นโยบายและแผน	Tel./Fax: (+66) 2 265 6558 E-mail:
<b>กรมทรัพยากรทางทะเลและชายฝั่ง</b>			
<b>กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม</b>			
6	นางสาวสุหทัย ไพโรสานท์กุล	ผู้อำนวยการส่วนประเมินผลการบริหารจัดการ ทรัพยากรทางทะเล	Tel./Fax: (+66) E-mail:
<b>สำนักงานทรัพยากรน้ำแห่งชาติ</b>			
7	นางสาวนันทวัน สุวรรณสถิตย์	ผู้อำนวยการกลุ่มวิเคราะห์สิ่งแวดล้อม	Tel./Fax: (+66) E-mail:
<b>สำนักงานสภาพัฒนาการเศรษฐกิจและสังคมแห่งชาติ</b>			
8	นางสาวพิชญาพร เดชสกุล	นักวิเคราะห์นโยบายและแผน ชำนาญการ	Tel./Fax: (+66) E-mail:
<b>สำนักงานปลัดกระทรวงการท่องเที่ยวและกีฬา</b>			
9	นางสาวภาวิไล ชลามาตย์	นักวิเคราะห์นโยบายและแผนชำนาญการ	Tel./Fax: (+66) E-mail:
<b>สำนักงานสถิติแห่งชาติ</b>			
10	นายประวิทย์ บรรจง	นักวิชาการสถิติชำนาญการพิเศษ	Tel./Fax: (+66) E-mail:
<b>สำนักงานจังหวัดกระบี่</b>			
11	นายวิรุจเทพ รัฐการวงศ์	หัวหน้าสำนักงานจังหวัดกระบี่	Tel./Fax: (+66) E-mail:
12	นางดรุณี รัฐการวงศ์	ผู้อำนวยการกลุ่มงานทรัพยากรบุคคล	Tel./Fax: (+66) E-mail:
<b>สำนักงานทรัพยากรธรรมชาติและสิ่งแวดล้อมจังหวัดกระบี่</b>			
13	นางสาวกนกพร โภคาอนนต์	นักวิชาการสิ่งแวดล้อมปฏิบัติการ	Tel./Fax: (+66) E-mail:
<b>มูลนิธิสถาบันวิจัยเพื่อการพัฒนาประเทศไทย</b>			
14	รองศาสตราจารย์อดิสร อิศรางกูร ณ อยุธยา	ผู้จัดการโครงการ	Tel./Fax: (+66) 2 718 5460 E-mail:
15	นายพีรวัช สุริยบุรพกุล	นักวิจัย	Tel./Fax: (+66) 2 718 5460 E-mail:
16	นางสาวรมิดา หาญสวัสดิ์	ผู้ประสานงานโครงการ	Tel./Fax: (+66) 2 718 5460

## สถานที่จัดการประชุม

### เกาะปาลาวัน

ชื่อสถานที่: Puerto Princesa City Hall

ที่อยู่: QPMJ+4HG, Puerto Princesa City, Palawan, Philippines

แผนที่: <https://maps.app.goo.gl/kJFVLH1KBof8k9L26>



### กรุงมะนิลา

ชื่อสถานที่: Philippines Statistics Authority (PSA) Headquarters

ที่อยู่: PSA Complex, East Avenue, Diliman, Quezon City, Philippines 1101

แผนที่: <https://maps.app.goo.gl/Sd95dCUfwo6zJ4Ry7>



ชื่อสถานที่: DENR Biodiversity Management Bureau

ที่อยู่: Admin and Finance Building, Project 6, Bago Bantay, Quezon City, Metro Manila, Philippines

แผนที่: <https://maps.app.goo.gl/GfoTpBxLEQGseTN6A>



## สถานที่เยี่ยมความหลากหลายทางชีวภาพ

### เกาะปาลาวัน

ชื่อสถานที่: Puerto Princesa Subterranean River National Park

ที่อยู่: Puerto Princesa City, Palawan, Philippines

แผนที่: <https://maps.app.goo.gl/yfadR2SigFNGvdMEA>



### กรุงมะนิลา

ชื่อสถานที่: Ninoy Aquino Parks and Wildlife Center

ที่อยู่: Elliptical Rd, Bagong Pag-asa, Quezon City, Metro Manila, Philippines

แผนที่: <https://maps.app.goo.gl/NdgukMhjh1RV1xcm8>



**กำหนดการ ศึกษาดูงาน ณ สาธารณรัฐฟิลิปปินส์**  
**เพื่อส่งเสริมและให้ความรู้ประสบการณ์จากการทำบัญชีทุนทางธรรมชาติจากประเทศในอาเซียน**  
**ที่มีประสบการณ์จัดทำบัญชีทุนทางธรรมชาติ**  
**ภายใต้โครงการจัดทำบัญชีทุนทางธรรมชาติเพื่อการตัดสินใจเชิงนโยบายสู่การพัฒนาที่ยั่งยืน**  
**(Integration of Natural Capital Accounting in Public and Private Sector Policy and**  
**Decision-making for Sustainable Landscapes)**

วันจันทร์ที่ 15 มิถุนายน 2569 ถึง วันพฤหัสบดีที่ 18 มิถุนายน 2569

ณ กรุงเทพมหานครและเกาะปาลาวัน

**วันที่ 1 (วันจันทร์ที่ 15 มิถุนายน 2569)**

07.30 น.	เดินทางถึงท่าอากาศยานนานาชาติสุวรรณภูมิ ณ จุดนัดพบ (Counter Row N) เพื่อเช็คอิน (โหลดกระเป๋าเดินทาง) และลงทะเบียน roaming sim
10.20 น. - 15.00 น.	ออกเดินทางจากท่าอากาศยานนานาชาติสุวรรณภูมิ ประเทศไทย เที่ยวบิน PR741 และเดินทางถึงท่าอากาศยานนานาชาตินินอยอากีโน ประเทศฟิลิปปินส์ (Ninoy Aquino International Airport)
15.45 น.	รับกระเป๋าและเช็คอินใหม่ (และผ่าน immigration) เพื่อต่อเครื่องภายในประเทศ อาจทานอาหารเย็นก่อนขึ้นเครื่อง (17.00 น.)
18.05 น. - 19.25 น.	ออกเดินทางจากท่าอากาศยานนานาชาตินินอยอากีโน ประเทศฟิลิปปินส์ เที่ยวบิน PR2279 และเดินทางถึงท่าอากาศยานนานาชาติ Puerto Princesa International Airport เกาะปาลาวัน ประเทศ ฟิลิปปินส์
19.45 น. - 20.00 น.	รับกระเป๋าและเดินทาง (รถ) ไปโรงแรม (Hue Hotel)
20.00 น. - 20.45 น.	Welcome dinner กับผู้แทนหน่วยงาน REECS

วันที่ 2 (วันอังคารที่ 16 มิถุนายน 2569)

07.00 น. - 07:30 น.	ทานอาหารเช้า ณ โรงแรม หรือสามารถลงมา 07:30 น. ทางหัวหน้าทัวร์จะเตรียมขนม (snack box) ให้ทานในรถ
07:30 น. - 09.15 น.	เช็คเอาท์ และออกเดินทางไป อุทยาน Puerto Princesa Subterranean River National Park
09.30 น. - 11.30 น.	เยี่ยมชมอุทยาน (ล่องเรือชมระบบนิเวศใน underground cave)
11.30 น. - 13.15 น.	ออกจากอุทยาน และเดินทางกลับเข้าเมือง ไป Puerto Princesa City Hall
13.30 น. - 14.15 น.	ทานอาหารกลางวัน ณ ร้านอาหาร
14:30 น. - 16.30 น.	ประชุมหารือกับหน่วยงานท้องถิ่น Palawan Council for Sustainable Development และ Puerto Princesa City Government (ซึ่งรวม City Environment and Natural Resources Office) ในประเด็นการจัดทำระบบบัญชีทุนทางธรรมชาติระดับจังหวัด ดังนี้ <ul style="list-style-type: none"> <li>• แลกเปลี่ยนประสบการณ์การรวบรวมข้อมูลและจัดทำบัญชีระบบนิเวศในระดับจังหวัดปลาวัน ความท้าทายด้านเทคนิค ข้อมูลเชิงพื้นที่ (GIS) และการประสานงานระหว่างหน่วยงานท้องถิ่น</li> <li>• นำร่อง Local Government Unit เพื่อดำเนินระบบบัญชีทุนทางธรรมชาติ (NCA) ในจังหวัดปลาวัน การทำบัญชีระบบนิเวศ บัญชีพื้นที่ลุ่มน้ำ และบัญชีทรัพยากรทางทะเลและชายฝั่ง การสร้างศักยภาพ</li> </ul>
16:30 น. - 16:45 น.	เดินทางไปที่ท่าอากาศยานนานาชาติ Puerto Princesa International Airport
16:45 น.	เช็คอินและรอขึ้นเครื่อง
18:40 น. - 20.05 น.	ออกเดินทางจากท่าอากาศยานนานาชาติ Puerto Princesa International Airport เที่ยวบิน PR2788 และเดินทางถึงท่าอากาศยานนานาชาตินินอยอากีโน (กรุงมะนิลา)
20.30 น. - 20.45 น.	รับกระเป๋า
20.45 น. - 21.15 น.	เดินทางถึงโรงแรม และเช็คอินเข้าโรงแรม Park Inn by Radisson North EDSA

**วันที่ 3 (วันพุธที่ 17 มิถุนายน 2569)**

07:30 น. – 08:30 น.	ทานอาหารเช้า ณ โรงแรมที่พัก
08.30 น. – 08.45 น.	ออกจากโรงแรม เดินทางไปตึกสำนักงาน Philippines Statistics Authority (PSA)
09.00 น. – 11.45 น.	ประชุมหารือกับหน่วยงาน Philippines Statistics Authority ในประเด็น ประสิทธิภาพการ จัดทำสถิติเศรษฐกิจสิ่งแวดล้อมและการบูรณาการบัญชีทุนทางธรรมชาติกับบัญชีประชาชาติและ สถิติเศรษฐศาสตร์สิ่งแวดล้อม
12.00 น. – 13.00 น.	ทานอาหารกลางวัน
13.00 น. – 13.30 น.	เดินทางไปที่ DENR Biodiversity Management Bureau
13.30 น. – 16.30 น.	ประชุมหารือกับหน่วยงาน Department of Environment and Natural Resources (DENR) ในประเด็น การจัดทำ Natural Capital Accounting ระดับประเทศ ภายใต้กฎหมาย PENCAS (The Philippine Ecosystem and Natural Capital Accounting System Act)  และเยี่ยมชม Ninoy Aquino Parks and Wildlife Center เพื่อศึกษาการจัดการและอนุรักษ์ ความหลากหลายทางชีวภาพ รวมถึงแสดงความสำคัญของบริการระบบนิเวศในเมือง
17.00 น.	กลับโรงแรม และพักผ่อนตามอัธยาศัย มีห้าง SM City North EDSA และห้าง TriNoma ที่อยู่ห่างจากโรงแรม (เดินน้อยกว่า 5 นาที) และร้านอาหารหลากหลายที่สามารถเดินไปได้

**วันที่ 4 (วันพฤหัสบดีที่ 18 มิถุนายน 2569)**

05:45 น. – 06.00 น.	เช็คเอาท์ และขึ้นรถเพื่อเดินทางไปสนามบิน
06:00 น. - 07.00 น.	ออกเดินทางจากโรงแรม ไปท่าอากาศยานนานาชาตินินอยอากีโน
07.00 น. – 08.30 น.	เช็คอิน โหลดกระเป๋า และผ่าน x-ray เพื่อเตรียมขึ้นเครื่อง
09.40 น. - 12.10 น.	ออกเดินทางจากท่าอากาศยานนานาชาตินินอยอากีโน ประเทศฟิลิปปินส์ เที่ยวบิน PR730 และ เดินทางถึงท่าอากาศยานนานาชาติสุวรรณภูมิ ประเทศไทย

\*กำหนดการอาจมีการเปลี่ยนแปลงตามความเหมาะสม

- สิ้นสุดการศึกษาดูงานต่างประเทศ -

## กรอบการหารือ แลกเปลี่ยนประสบการณ์

ในภาพรวมการหารือ จะเป็นการแลกเปลี่ยนประสบการณ์การจัดการระบบบัญชีทุนทางธรรมชาติ และถอดบทเรียนในการดำเนิน NCA และการประเมินมูลค่าทางเศรษฐกิจของทรัพยากรธรรมชาติระดับประเทศ เนื่องจากประเทศไทยยังไม่มีจัดการระบบบัญชีทุนทางธรรมชาติระดับประเทศ จึงสนใจเรียนรู้จากประสบการณ์ของประเทศฟิลิปปินส์ แต่ทางทีมที่ปรึกษาได้จัดทำบัญชีทุนทางธรรมชาติในระดับจังหวัด (นำร่องที่จังหวัดกระบี่)

### หน่วยงานระดับจังหวัด

**Palawan Council for Sustainable Development (PCSD) และ The City Environment and Natural Resources Office (CENRO Puerto Princesa)** เป็นหน่วยงานที่มีบทบาทดูแลพื้นที่นำร่อง ประเด็นการพูดคุยจึงจะเลิกไปที่การปฏิบัติงานจริง เช่น การจัดการข้อมูล GIS และฐานข้อมูลความหลากหลายทางชีวภาพ, การดำเนินโครงการ REINVEST (ประเมินมูลค่าทรัพยากรทางทะเลและชายฝั่ง), การใช้ข้อมูลระบบนิเวศเพื่อประกอบการวางแผนการใช้ที่ดินและโครงการพัฒนาต่างๆ รวมถึงการปรับตัวเพื่อเตรียมรับโครงการ NCA ระดับประเทศที่ GEF จะให้การสนับสนุน

### หน่วยงานระดับส่วนกลาง

**Department of Environment and Natural Resources (DENR)** มีบทบาทในการดำเนินการตาม NCA Roadmap จึงจะมุ่งเน้นพูดคุยถึงประสบการณ์ บทเรียน และอุปสรรคในการจัดทำ NCA (รวมถึงฐานข้อมูลที่ใช้) การประเมินความพร้อมของหน่วยงานในการดำเนินงานตามระบบ PENCAS อย่างเต็มรูปแบบ ตลอดจนแนวทางการเสริมสร้างและพัฒนาศักยภาพของเจ้าหน้าที่ในการจัดทำและประยุกต์ใช้ NCA

**Philippines Statistics Authority (PSA)** หรือสำนักงานสถิติของประเทศฟิลิปปินส์ จะเน้นการหารือเกี่ยวกับประสบการณ์การจัดทำสถิติเศรษฐกิจสิ่งแวดล้อม การบูรณาการบัญชีทุนธรรมชาติเข้ากับบัญชีประชาชาติ และการจัดทำตัวชี้วัดความมั่งคั่งและความยั่งยืน (wealth and sustainable indicators)

## การเดินทางและคำแนะนำเกี่ยวกับสิ่งของในกระเป๋าเดินทาง

### ข้อมูลเที่ยวบิน

เวลานัดหมาย: วันที่ 15 มิถุนายน 2569 เวลา 7.30 น.  
 สถานที่: สนามบินนานาชาติสุวรรณภูมิ เคาน์เตอร์ N  
 ผู้อำนวยการความสะดวก: คุณชู (ณัฐวุฒิ) โทร. 089-4991170

เส้นทาง	สายการบิน	เที่ยวบิน	วันที่	เวลาออก	เวลาถึง
BKK – MNL	ฟิลิปปินส์แอร์ไลน์	PR 741	15 มิถุนายน 2569	10:20 น.	15:00 น.
MNL – PPS	ฟิลิปปินส์แอร์ไลน์	PR 2779	15 มิถุนายน 2569	18:05 น.	19:25 น.
PPS – MNL	ฟิลิปปินส์แอร์ไลน์	PR 2788	16 มิถุนายน 2569	18:40 น.	20:05 น.
MNL – BKK	ฟิลิปปินส์แอร์ไลน์	PR 730	18 มิถุนายน 2569	09:40 น.	12:10 น.
MNL – BKK	การบินไทย	TG 621	18 มิถุนายน 2569	12:55 น.	15:25 น.

### คำแนะนำการจัดกระเป๋าเดินทาง

- ของเหลว เจล สเปรย์ (เช่น เครื่องดื่ม ครีม โลชั่น ออยล์ น้ำหอม แชมพู สเปรย์ใส่ผม เจลใส่ผม เจลอาบน้ำ โฟม ยาสีฟัน) ที่จะนำติดตัวขึ้นเครื่อง ต้องบรรจุอยู่ในบรรจุภัณฑ์ขนาดไม่เกิน 100 มิลลิลิตร ต่อ 1 ชิ้น รวมกันแล้วต้องไม่เกิน 1,000 มิลลิลิตร และต้องมีข้อความระบุปริมาณของบรรจุภัณฑ์อยู่ด้วย ไม่เช่นนั้นต้องใส่ไว้ในกระเป๋าใหญ่ที่จะโหลด
- ของมีคม (เช่น กรรไกร ที่ตัดเล็บ มีดพกผลไม้) ใส่ไว้ในกระเป๋าใหญ่ที่จะโหลด **ห้ามนำติดตัวขึ้นเครื่อง**
- แบตเตอรี่สำรอง/เพาเวอร์แบงค์ให้นำติดตัวขึ้นเครื่อง **ห้ามใส่ไว้ในกระเป๋าใหญ่ที่จะโหลด** โดยต้องมีฉลากระบุกำลังไฟชัดเจน มีขนาดไม่เกิน 100 Wh เท่านั้น และไม่เกิน 2 ชิ้น
- โทรศัพท์มือถือ แท็บเล็ต โน้ตบุ๊ก และของมีค่าที่ไม่ใช่ของต้องห้ามนำขึ้นเครื่อง ควรนำติดตัวขึ้นเครื่อง **ไม่ควรใส่ไว้ในกระเป๋าใหญ่ที่จะโหลด**
- อาหารของเด็กและผู้ป่วย รวมทั้งยา ที่เป็นของเหลวขนาดเกิน 100 มิลลิลิตร อาจมีการอนุโลมให้นำติดตัวขึ้นเครื่องได้ ขึ้นอยู่กับการพิจารณาอนุญาตของเจ้าหน้าที่ที่จุดตรวจ
- กระเป๋าโหลด ชั้นธุรกิจน้ำหนักไม่เกิน 32 กิโลกรัม (น้ำหนักสูงสุดที่การบินไทยอนุญาต) ชั้นประหยัด น้ำหนักไม่เกิน 30 กิโลกรัม (สำหรับท่านที่เดินทางกลับด้วยการบินไทย น้ำหนักไม่เกิน 23 กิโลกรัม และจำกัดจำนวนกระเป๋า 1 ใบเท่านั้น) เพื่อความคล่องตัวในการเดินทาง ควรใช้กระเป๋าที่มีขนาดไม่ใหญ่จนเกินไปเพียงใบเดียว

- กระเป๋าน้ำติดตัวขึ้นเครื่อง น้ำหนักไม่เกิน 7 กิโลกรัม และมีขนาดไม่เกิน 56 ซม. (สูง) x 23 ซม. (กว้าง) x 36 ซม. (ยาว)

## ภูมิอากาศและการพยากรณ์อากาศ

**ปาลาวัน (Puerto Princesa)** ในวันที่ 15–16 มิถุนายน 2569 พยากรณ์คาดว่าอากาศจะร้อน ชื้น และอาจมีฝนตก

วันที่ 15–16 มิถุนายน อยู่ในช่วงเริ่มต้นของมรสุมตะวันตกเฉียงใต้ จึงมีแนวโน้มอากาศร้อน แต่ก็อาจมีฝนตกหนักช่วงสั้น ๆ

อุณหภูมิที่ Puerto Princesa จะอยู่ระหว่าง 24°C - 31°C

- ช่วงกลางวัน 30°C - 31°C
- ช่วงเย็น 24°C - 25°C

แนะนำ ให้เตรียมเสื้อผ้าบางๆ เครื่องกันแดด และเสื้อกันฝนหรือร่มด้วย คาดว่าจะมีวันที่ร้อน มีเมฆบางส่วน และฝนตกช่วงสั้นๆ

**กรุงมะนิลา (Metro Manila)** ในวันที่ 17 มิถุนายน 2569 พยากรณ์คาดว่าอากาศจะร้อน ชื้น และมีโอกาสเกิดฝนฟ้าคะนอง โดยเฉพาะช่วงบ่ายถึงเย็น

อุณหภูมิที่กรุงมะนิลาจะอยู่ระหว่าง 25°C - 32°C

- ช่วงกลางวัน 32°C
- ช่วงเย็น 25°C - 26°C

แนะนำ ให้เตรียมเสื้อกันแดด/กันฝน หรือร่มด้วย

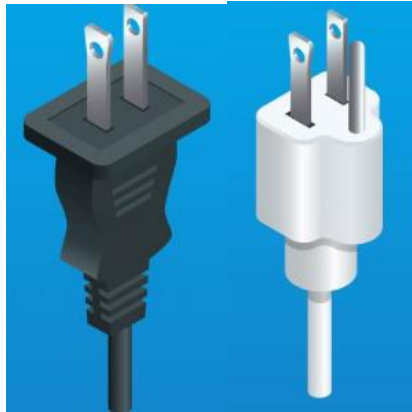
## ข้อมูลทั่วไปของประเทศฟิลิปปินส์

- เวลา: เวลาที่ประเทศฟิลิปปินส์ เร็วกว่าเมืองไทย 1 ชั่วโมง
- ภาษาที่ใช้: ภาษาตากาล็อกและภาษาท้องถิ่นอีกกว่า 100 ภาษา คนฟิลิปปินส์ส่วนใหญ่พูดภาษาอังกฤษได้ดี  
 Kumusta (คุมุस्ता) แปลว่า สวัสดีค่ะ/ครับ  
 Salamat (ซา-ลา-มัด) แปลว่า ขอขอบคุณ  
 Paumanhin (เปา-มัน-ฮิน) แปลว่า ขอโทษ  
 Kailangan ko ng tulong (ไค-ลา-จัน โก งา ตู-ลอง) แปลว่า ช่วยด้วย  
 Magkano ito แปลว่า ราคาเท่าไร
- สกุลเงินที่ใช้: เปโซฟิลิปปินส์ (PHP) อัตราแลกเปลี่ยนโดยประมาณ 1 เปโซฟิลิปปินส์ เท่ากับ 0.53 บาท
- การใช้จ่าย: ร้านค้าขนาดใหญ่ส่วนใหญ่ตามแหล่งช้อปปิ้งหลัก รับทั้งเงินสด บัตรเครดิต และบัตรเดบิต (เช่น Travelcard ของธนาคารกรุงไทย, Boarding card ของธนาคารกรุงศรีอยุธยา, Scb Planet ของธนาคารไทยพาณิชย์, YouTrip ของธนาคารกสิกรไทย) ส่วนร้านค้าขนาดเล็ก ร้านค้าท้องถิ่น และร้านค้าสตรีทฟู้ดส่วนใหญ่ รับเพียงเงินสดเท่านั้น นอกจากนี้ ร้านค้าบางร้านสามารถสแกนจ่ายผ่านแอปพลิเคชัน AliPay และ Mobile banking ของไทยได้ (K PLUS และ SCB EASY)
- ค่าใช้จ่ายที่โรงแรม: หากมีการใช้บริการเสริมที่โรงแรม เช่น ค่าเครื่องดื่มและของกินเล่นที่บริการในห้องพัก ค่าโทรศัพท์ ค่าซักรีด หรือค่าเสียหาย สามารถติดต่อชำระให้เสร็จสิ้นด้วยตัวเองหรือแจ้งที่ผู้ประสานงานก่อนการเช็คเอาท์โรงแรม
- รหัสโทรศัพท์: รหัสโทรศัพท์ระหว่างประเทศของประเทศฟิลิปปินส์คือ +63 ส่วนรหัสของไทยคือ +66
- การติดต่อสื่อสาร: เพื่อความสะดวกและปลอดภัยจากการโจรกรรมข้อมูลทางอิเล็กทรอนิกส์ ควรเปิดบริการโรมมิ่ง (International Roaming) จากประเทศไทยก่อนการเดินทาง ในปัจจุบัน มีแพ็คเกจที่ครอบคลุมทั้งการใช้อินเทอร์เน็ตและการโทรในต่างประเทศ หรือแพ็คเกจสำหรับใช้อินเทอร์เน็ตเพียงอย่างเดียว ตัวอย่างแพ็คเกจสำหรับใช้อินเทอร์เน็ตเพียงอย่างเดียว เช่น Ready2Fly เอเชียและออสเตรเลีย ของค่ายเอไอเอส Go Travel เอเชียและออสเตรเลีย ของค่ายทรู

แอปพลิเคชัน: สำหรับท่านที่ต้องการเดินทางไปสถานที่ต่าง ๆ ด้วยตัวเอง แนะนำให้ติดตั้งแอปพลิเคชันดังนี้

1. Google Maps แอปแผนที่ที่มีฟีเจอร์นำทางที่ละเอียดและข้อมูลการขนส่งสาธารณะ
2. Sakay.ph แอปบอกเส้นทางขนส่งสาธารณะในมะนิลา ดูตารางเวลาแบบเรียลไทม์ได้
3. Grab แอปเรียกแท็กซี่ รองรับการชำระเงินทั้งเงินสดและบัตรเครดิต
4. Google Translate แอปแปลภาษาที่ให้ความแม่นยำสูงมาก รองรับทั้งการพิมพ์ พูด และภาพ

ระบบไฟฟ้า: 220 V 60 Hz (ไม่ต้องใช้อะแดปเตอร์) ใช้กับขั้วปลั๊กไฟแบบขาแบน (type A หรือ type B)



## โรงแรมและข้อมูลห้อง

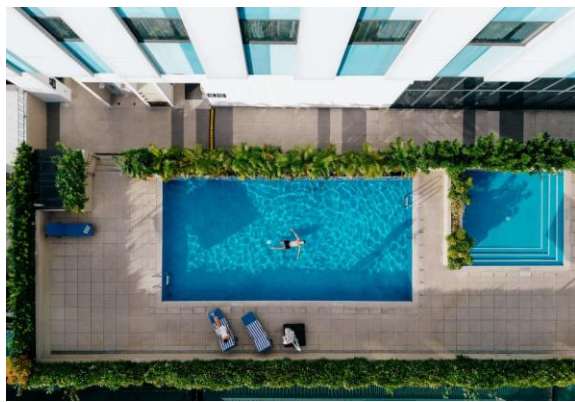
ที่พัก ณ เกาะปาวาวัน (1 คืน) Hue Hotel

Google maps: <https://maps.app.goo.gl/R81EkytNpeF6Xtw4A>



ที่พัก ณ กรุงเทพมหานคร (2 คืน) Park Inn by Radisson North EDSA

Google maps: <https://maps.app.goo.gl/sSmBrVtNJsBgUpwA8>



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