

THAILAND'S PROGRESS ON SEEA

Training on Ecosystem Accounting in Support of the Sustainable Development Goals
and Global Biodiversity Framework

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OFFICE OF NATURAL RESOURCES AND ENVIRONMENTAL POLICY AND PLANNING , ONEP

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Current Status of SEEA Implementation in Thailand

ENVIRONMENTAL ACCOUNTS

SEEA Implementation in Thailand



- Study of environment accounts that include natural resources and environmental costs.
- Study a framework for assessing the country's GDP including the environmental costs in agricultural sector.
- Study to develop statistics for System of Environmental-Economic Accounting for Agriculture, Forestry and Fisheries (SEEA-AFF).
- Developing a SEEA Blue Economy Accounting Framework in Thailand's context.
- Pilot study with UNESCAP in Ocean Account on Sustainable Tourism in the Andaman Tourism Development Area
- Development "Thailand Environmental Economic Accounting System (SEEA) Practice Guideline" including water account, material flow account (plastic).
- SEEA Ocean Account in Phang Nga Bay Area
- Natural Capital Accounting: NCA (Ecosystem account) in Krabi
- SEEA land Account and Timber Account with ADB
- SEEA Forest Account and Timber Account at national level and Ecosystem Account in Khung BangKachao and Khao Yai



Roles of Key Agencies in Compiling SEEA in Thailand



National Statistical Office (NSO)



**Office of Natural Resources and
Environmental Policy and Planning (ONEP)**

- **Development of Tools and Mechanisms:**

- Developing manuals and guidelines for SEEA implementation tailored to the Thai context
- Applying FDES in the compilation of accounts

- **Focal Point:**

Serving as the central coordinating body and providing technical advice to other agencies involved in SEEA.

- **Implementation:**

- Development and compilation of environmental-economic accounts, as well as ecosystem accounts
- Currently in the initial phase
- **2025:** Compiling Forestry and Timber Resources Accounts as a national pilot

Current Status of SEEA Implementation in Thailand

- Study on the feasibility and data readiness of Thailand for preparing SEEA, specifically for particular sectors such as agriculture, ocean resources, forestry and timber resources



- 2014: Developing a Framework for Assessing Gross Domestic Product Including Resource and Environmental Costs in the Agricultural Sector of Thailand
- 2018: Framework for Preparing the SEEA-Blue Economy Suitable for the Thai Context
- 2019: the Tourism Satellite Account-System of Environmental Economic Accounting (TSA-SEEA) in the Tourism Development Cluster Andaman (Phuket, Krabi Phang Nga, Trang, Satun province)



- 2022: Pilot Ocean Account for the Gulf of Phang Nga, Phuket, and Krabi
- 2023-2026: Integration of Natural Capital Accounting in Public and Private Sector Policy and Decision-making for Sustainable Landscapes (Phang Nga province)
- 2025: Pilot Ecosystem Account for Khao Yai National Park
- 2025: Pilot Ecosystem Account in Khung BangKachao



Data Sources for Asset Accounts

»» Asset Account for Forestry and Timber Resource

- **Data Source:** Primarily secondary data
- **Data Providers:** Agencies involved in forest resource management
- **Examples of Supporting Agencies**
 - Royal Forest Department
 - Department of National Parks, Wildlife and Plant Conservation
 - Forest Industry Organization
 - Department of Marine and Coastal Resources
 - Land Development Department
 - Rubber Authority of Thailand
 - The Federation of Thai Industries
 - Customs Department
- **Timeframe:** 2013–2023 was selected due to the most complete data availability

Physical Asset Account for Forestry: Methodology

- **Approach:** Utilizing official statistics and reports from agencies legally mandated to oversee each forest type to minimize discrepancies

- Forest area classified by type
- Changes in forest area (increases, decreases due to encroachment, reforestation, land-use change)

	Type of forest and other wooded land				Total
	Primary Forest	Other naturally regenerated forest	Planted forest	Other wooded land	
Opening stock					
Additions to stock					
Afforestation					
Natural expansion					
Total additions to stock					
Reductions in stock					
Deforestation					
Natural regression					
Total reductions in stock					
Closing stock					

Physical Asset Account for Timber Resource: Focus

- To account for timber stock used for economic activities, enabling estimation of timber quantity and value over
- **Impact of 1989 Logging Ban:** Timber resource for industry now solely from Planted forests
- **Selected Economic Tree Species:**
 - **Teak:** Represents slow-growing, high-value timber for diverse industries used in various industries.
 - **Para Rubberwood:** High volume timber for wood product industries (furniture, wood processing, panels, etc.)
 - **Eucalyptus:** Widely planted and utilized, especially in paper and pulp industries.

Physical Asset Account for Timber Resource: Compilation

Recording timber volume from planted forest areas based on annual assessments.

	Opening stock	Additions to stock			Reductions in stock				Net changes in stock	Closing stock
		Natural growth	Artificial regeneration	Total additions	Removals	Felling residues	Natural losses	Total reductions		
Type of timber resource										
Teak										
Para Rubberwood										
Eucalyptus										

Total

Applications of SEEA Asset Accounts

» Asset Account for Forestry and Timber Resource

- **National Strategy Monitoring:** Track progress towards the 20-Year National Strategy (2018–2037) target of 55% green area by 2037 (35% natural forest, 15% economic forest, 5% urban green space)
- **Forest Management & Climate Action:** Monitor changes in forest area by ecosystem type to inform restoration and management plans, contributing to Thailand's GHG reduction target of 109.2 million tons of CO₂ equivalent by 2035
- **Economic Timber Strategy:** Develop a "timber economic matrix" (supply–demand) to support the development of the timber industry and strategies for promoting timber planting and utilization, especially for Teak

SEEA Ecosystem Accounting: Khao Yai National Park

- World Heritage Status
- First National Park of Thailand
- Time frame: Before and After registered for world Heritage status



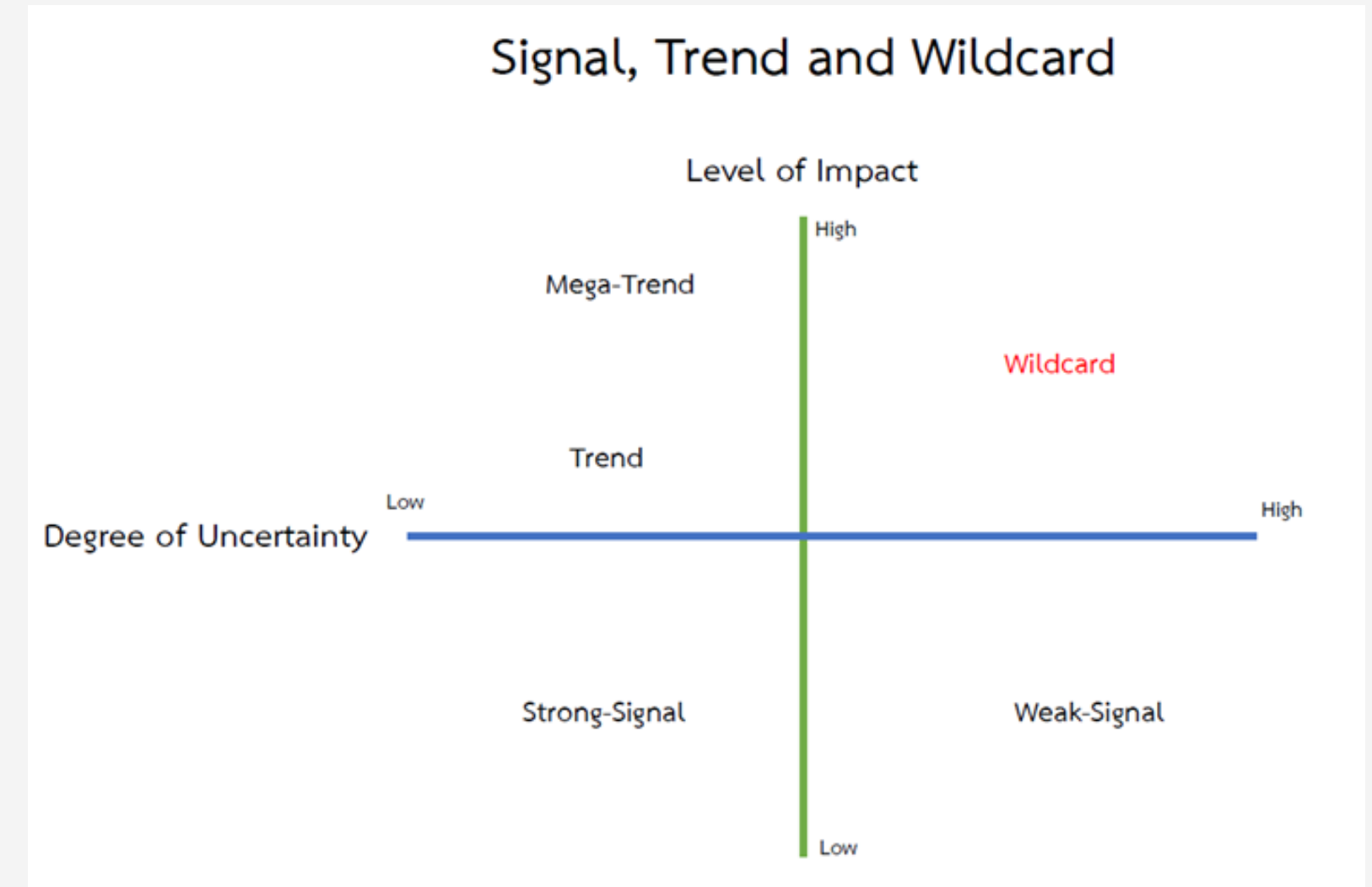
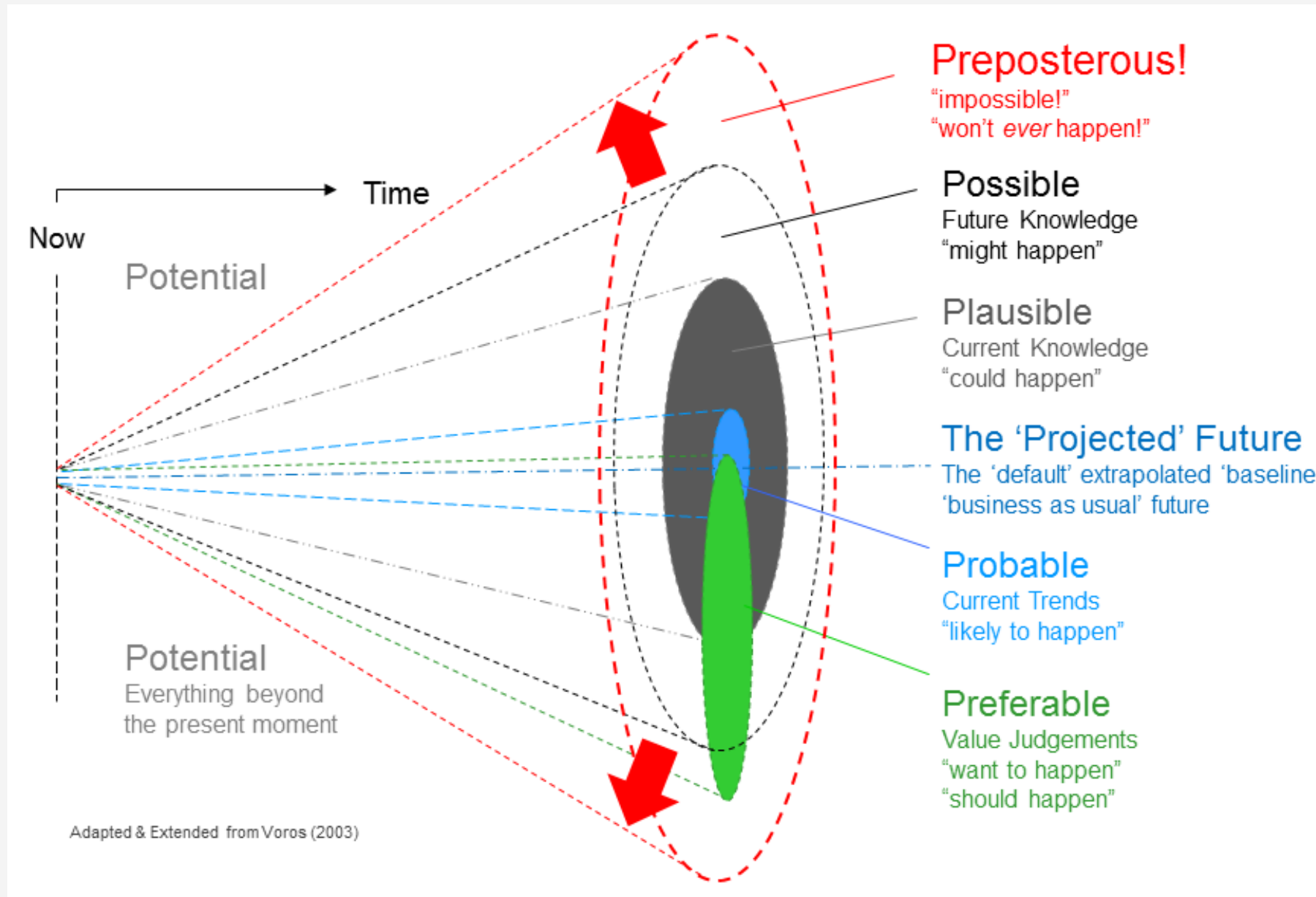
- Provisioning Services
- Regulating Service
 - Carbon Sequestration and Storage
 - Climate Regulation
 - Disturbance Regulation

SEEA Ecosystem Accounting: Khung BangKachao

- Registered Environmental Protection Area
- Green Urban Area
- Provisioning Services Geographical Indicator Products
- Regulating Service
 - Climate Regulation
 - Disturbance Regulation: Coastal Erosion



Applications of SEEA EA: Scenario Analysis



Akkharawit Kanjana-Opas, 2025

<https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/>)

Applications of SEEA EA: Scenario Analysis

- Participation of stakeholders from all sectors
- Identify the signal of Changes:
 - Politics: SDGs, NBSAPs
 - Environment
 - Economic: Green Economy
 - Social
 - Innovation and Technology
 - Plans and Regulations: Bio-Circular-Green (BCG) Economy Action Plan (2021-2027)

Challenges and Solutions



Data Availability and Quality

- Forest area data is fragmented across multiple agencies and lacks uniformity
 - Systematic collection of forest area changes is insufficient, hindering the identification of key influencing factors
 - Timber volume from economic planted forests is not systematically collected.
 - Limitations in accessing certain types of data.
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Varying Definitions

- Forest area definitions are inconsistent among agencies, leading to reports only on areas under their specific legal mandates
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Data Integration

- Data collection methodologies and baseline years vary among agencies due to budget and personnel constraints
- Differences exist in units of measurement and data collection methods across agencies

Challenges and Solutions

- **Strategies Implemented:**
 - **Organizing focus group meetings** with relevant agencies to discuss the accounting framework, definitions, data classifications, reference periods, data limitations, and to solicit additional data support
 - **Developing a data management system** for forest-related resources to support SEEA implementation, considering data governance, security, and privacy, aligning with stakeholder roles and promoting efficient and secure data management

Note: These are ongoing efforts, and some challenges still require resolution

Thank you for your attention

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