SEEA Frameworks: Central Framework & Ecosystem Accounting

Day 2: Understanding the Standards

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Day 2 Agenda

Morning (09:30 – 13:00)

- **Session 1: SEEA Central Framework (SEEA-CF)**
  - Assets vs. Flows
  - Physical vs. Monetary Accounts
  - Opening & Closing Stocks
- **Session 2: SEEA Ecosystem Accounting (SEEA-EA)**
  - Ecosystem Extent & Condition
  - Ecosystem Services
  - Differences: CF vs. EA

Afternoon (14:00 – 16:00)

- **Session 3: Rwanda Mapping Exercise**
  - Mapping existing data to SEEA
  - Identifying SEEA-compliant areas
  - Improving data flows

Day 2 Output

SEEA mapping table customized for Rwanda.

The Two Pillars of SEEA

SEEA Central Framework (CF)

- **Standardized since 2012** (UN Statistical Standard).
- Focuses on **individual assets**:
  - Water, Timber, Minerals, Energy.
- View: "The Economy using Nature".

SEEA Ecosystem Accounting (EA)

- **Standardized since 2021**.
- Focuses on **spatial areas** (Ecosystems):
  - Forests, Wetlands, Lakes.
- View: "Nature supporting the Economy".

SEEA Central Framework

Managing Natural Assets

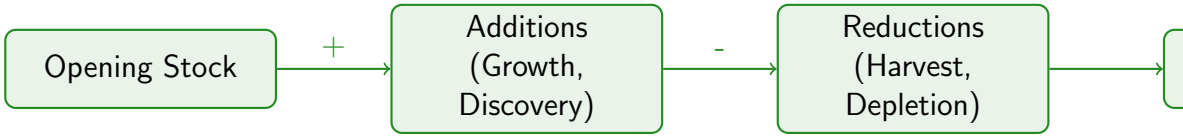
Key Question: How much do we have, and how fast are we using it?

Distinction: Assets vs. Flows

- **Stock (Asset):** The quantity of a resource at a specific point in time.
  - *Example:* Total volume of water in Lake Kivu today.
  - *Example:* Total tonnes of Cassiterite in the ground.
- **Flow:** The movement of resources between the environment and the economy.
  - *Example:* Water abstractions by WASAC for Kigali.
  - *Example:* Timber harvested for construction.

The Basic Asset Account

The core accounting identity for any natural resource:



- **Additions:** Natural growth (forests), discoveries (minerals).
- **Reductions:** Extractions (mining), catastrophic losses (fires).

Physical vs. Monetary Accounts

Physical Accounts

- Measured in physical units:
  - Liters, Tonnes, Hectares.
- **Primary constraint:** You can't consume more than exists physically.
- Easier to compile first.

Monetary Accounts

- Measured in currency (RWF, USD).
- Assigns value to physical stocks.
- **Purpose:** Compare with GDP, assess national wealth.
- *Challenge:* Market prices often don't exist for nature.

Coffee Break

11:00 – 11:30

SEEA Ecosystem Accounting

Health, Services, and Systems

Ecosystem Extent & Condition

1. Extent (Size)

- "How big is it?"
- Measured in Hectares.
- Example: Map of Rwanda's land cover (Forest, Wetland, Agriculture).

2. Condition (Health)

- "Is it functioning?"
- Comparison to a reference state (natural).
- Indicators:
  - Soil fertility
  - Water quality
  - Biodiversity index

Ecosystem Services

The benefits people obtain from ecosystems.

Type	Examples in Rwanda
Provisioning	- Providing timber, firewood, crops, clean water.
Regulating	- Flood control (wetlands), Carbon storage (forests), Soil retention (terraces).
Cultural	- Tourism (gorillas), Spiritual values, Recreation.

Important

SEEA-EA tracks the **flow** of these services to beneficiaries (Households, Business, Government).

Summary: CF vs. EA

Feature	SEEA-CF	SEEA-EA
Perspective	Economic Assets	Ecological Systems
Key Units	Tonnes, m3	Hectares, Index
Spatiality	Can be national aggregate	Must be spatially explicit (Maps)
Main Metric	Depletion	Degradation

Lunch Break

13:00 – 14:00

Session 3: Rwanda Mapping Exercise

Goal: Identify what we already have.

- Rwanda has excellent data compared to many peers.
- We need to map this to the SEEA tables.

Example: Water Accounts

- **Existing Data:** Water Permit data (RWB), Water Production (WASAC).
- **SEEA Target:** Physical Supply and Use Table (PSUT) for Water.
- **Action:** Merge permit database with ISIC industry codes.

Group Activity: The Mapping Table

In groups, discuss the following for your sector (Land, Water, Forest):

1. **Data Source:** Who holds the data? (e.g., RLMUA, RWB, RFA)
2. **Frequency:** Is it annual? One-off?
3. **Format:** Is it Excel, PDF report, or GIS Shapefile?
4. **Gap:** What is missing to make it SEEA compliant?

Output: Fill the "Rwanda SEEA Readiness Matrix".

Day 2 Summary

- **SEEA-CF** helps us manage resource stocks (keeping track of what we use).
- **SEEA-EA** helps us protect ecosystem health (keeping track of where we live).
- **Rwanda** is well-placed to implement both, but data integration is the key challenge.

Tomorrow: Deep dive into Data Systems and Gap Analysis.

Murakoze Cyane!

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