# Session 3b: Ecosystem condition

System of Environmental Economic Accounting

United Nations

# Session outline:

Heather Keith (Australian National University): Purpose of condition account (brief introduction to the discussion paper 2.1)

Amanda Driver (SANBI, South Africa): Review of condition accounts (brief introductions to the discussion paper 2.2)

Joachim Maes (EU JRC): Criteria and typology (brief introductions to the discussion paper 2.3)

Country examples:

Francisco Jimenez Nava (INEGI, Mexico): Condition accounts in practice: example from Mexico

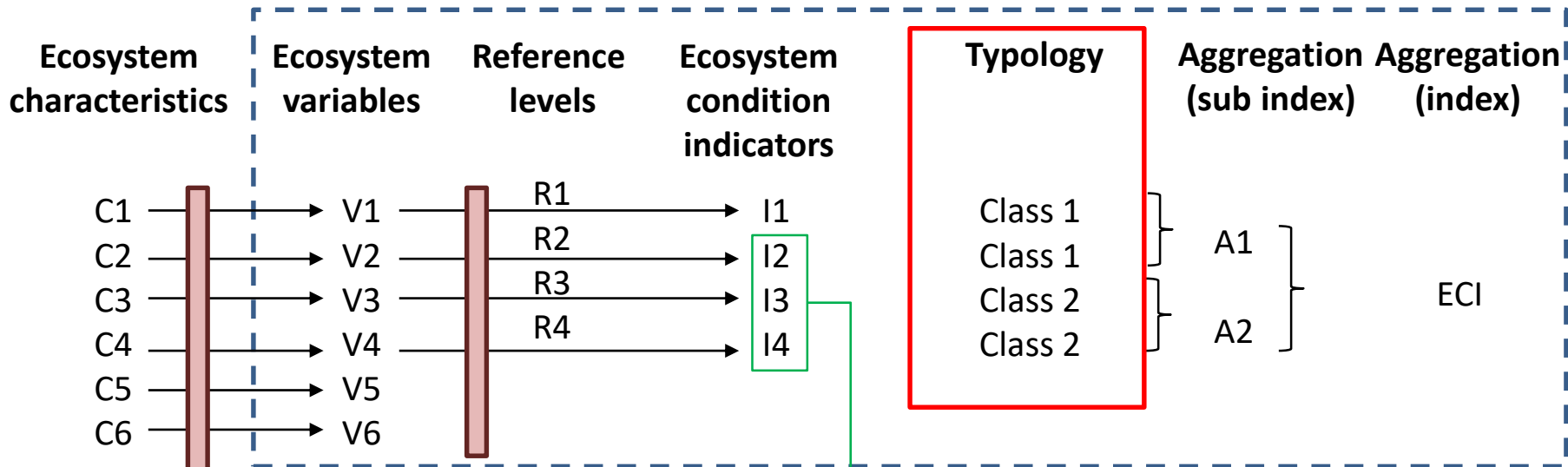Simon Jakobsson (NINA, Norway): Condition accounts in practice: example from Norway

# Criteria and typology (brief introductions to the discussion paper 2.3)

## Bálint Czúcz
## EC Joint Research Centre

**Ecosystem characteristics**
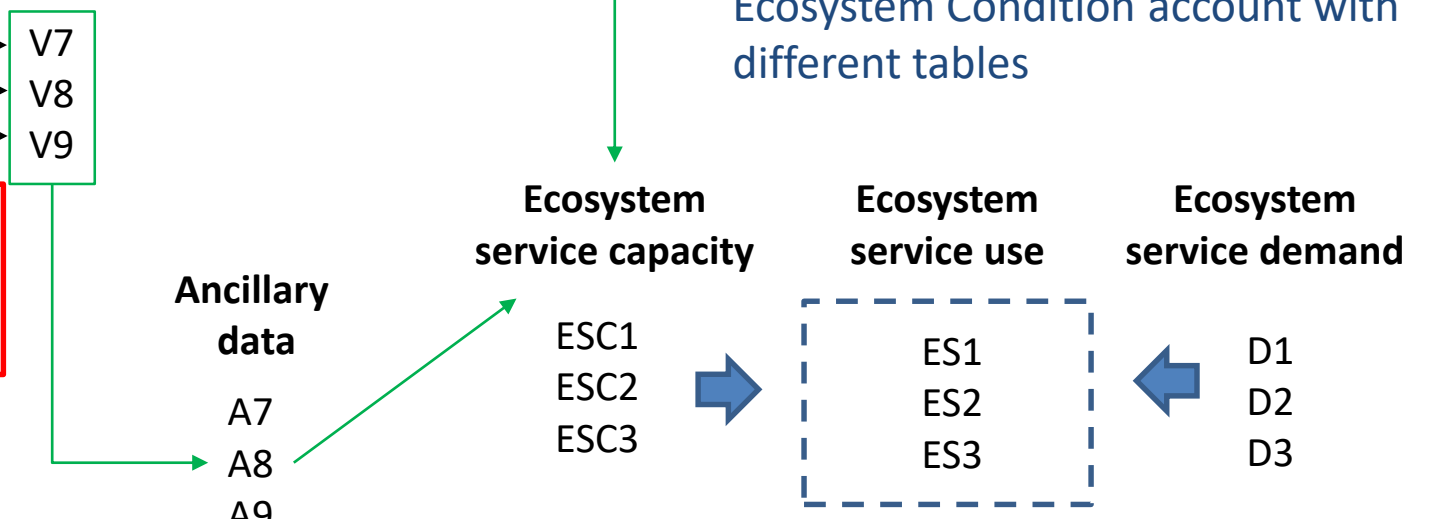
C1 C2 C3 C4 C5 C6

**Ecosystem variables**

V1 V2 V3 V4 V5 V6

**Reference levels**

R1 R2 R3 R4

**Ecosystem condition indicators**

I1 I2 I3 I4

**Typology**

Class 1
Class 1
Class 2
Class 2

**Aggregation (sub index)**

A1
A2

**Aggregation (index)**

ECI

Ecosystem Condition account with different tables

C7 C8 C9

V7 V8 V9

Selection criteria for variables and reference levels

**Ancillary data**

A7 A8 A9

**Ecosystem service capacity**

ESC1 ESC2 ESC3

**Ecosystem service use**

ES1 ES2 ES3

**Ecosystem service demand**

D1 D2 D3
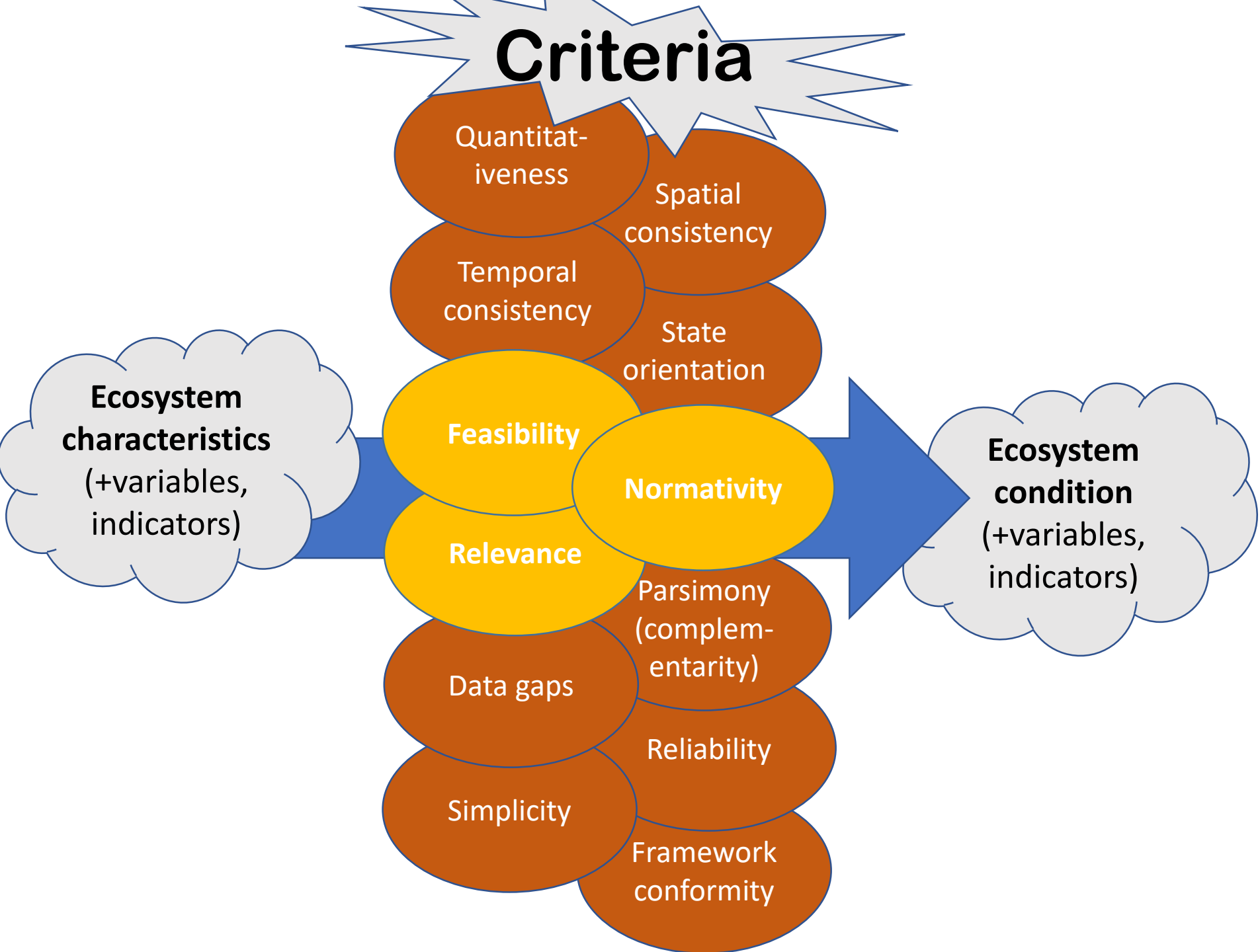
Ecosystem Services account: Supply/Use tables

$ESC = function(I2, I3, I4, A7, A8, A9)$

$ES = function(ESC, D)$

# Typology for ecosystem condition indicators

| ECI class name | ECI class short definition |
|---|---|
| Species-based indicators | Species-level biodiversity (including species-based functional diversity indicators) |
| Vegetation and biomass | The local amount of living (or recently living) plant matter (vegetation, biomass) in an ecosystem. |
| Physical and chemical state | Abiotic stocks in the ecosystems (local quantity and quality) |
| Ecosystem processes | Ecosystem processes with indicators that meet the selection criteria, and which cannot be included elsewhere (e.g. disturbance regimes) |
| Landscape pattern | Landscape diversity, connectivity (=fragmentation), neighbourhood relationships, and the share of embedded habitat subtypes |

# Typology for **ecosystem condition** indicators (ancillary data)

| Ancillary data 'types' | ... short description |
|---|---|
| Accessibility | ...a factor behind the demand for ES → should it be assessed among factors influencing the capacity? |
| Protected areas | ...response indicators which express policy intentions, not concrete/actual ecosystem state |
| Pressures | ...should be represented with the underlying 'degradable environmental stocks' |
| Natural resource management | ...not necessarily considered as an internal part of the studied ecosystems (if yes, it should be considered an ecosystem process) |
| Certificates, audits | ...certificates by companies are never comprehensive |
| Stable environmental characteristics | ...variables which are virtually constant in time (e.g. local topography (slope, aspect), soil type... +climate) |

# Review

- In general there is broad support for the typology BUT

    > Marine and freshwater

    > Headline indicators

    > Too general, not operational towards management or statistics.

    > Not biome specific

    > Climate is missing

    > Questions about the higher scale indicators.

SEEA

# THANK YOU

seea@un.org