

Towards the definition and classification of ecosystem services for SEEA

Break out session #1 principles for ES classification, types of services and classification hierarchy,



First topic: defining and classifying Ecosystem services

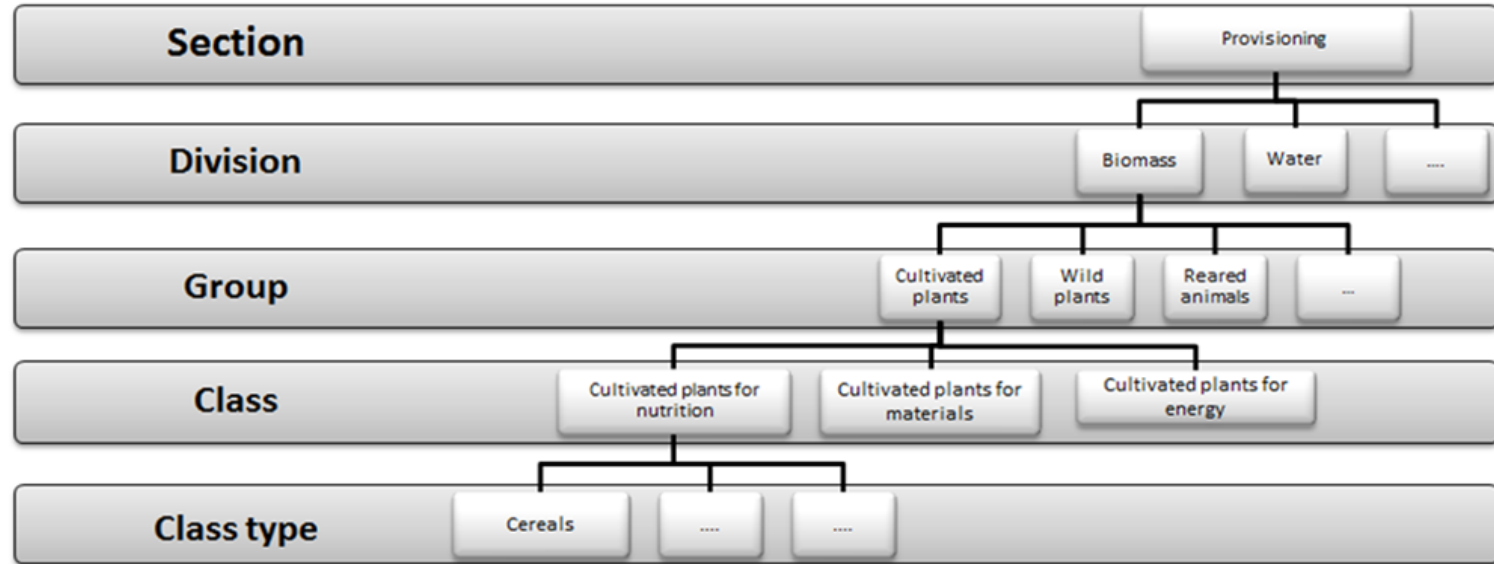
- Comparison of existing classifications and how they align with accounting following SEEA principles
 - CICES, IPBES, NESCS
- Questions to be discussed:
 - What are the principles that are relevant for defining and classifying Ecosystem services (ES)?
 - To what degree is alignment with existing classification possible/helpful, considering the various points where these 3 systems align or differ
 - Should there be a distinction between provisioning, regulating and cultural services for SEEA ?
 - Should there be a hierarchy in the SEEA classification? How many levels?

Principles (*first list, to be discussed*)

- Needs to be compatible with SNA and SEEA EEA Framework (some progress was made already)
- Use SEEA EEA Technical Recommendations as a basis for discussion
- Build upon relevant classification systems: CICES, IPBES, NESCS –but they are quite different and we cannot align with all of these
- Needs to adhere to principles of statistical classification: unequivocal labels for ecosystem services; if there is a hierarchy, classes need to be mutually exclusive
- Needs to accommodate a wide range of very different types of services, in different contexts
- Are there principles missing ?

Hierarchy of ES classification

■ CICES hierarchy



■ IPBES

Material (Provisioning) || Regulating || Non-material
18 groups of services

■ NESCS

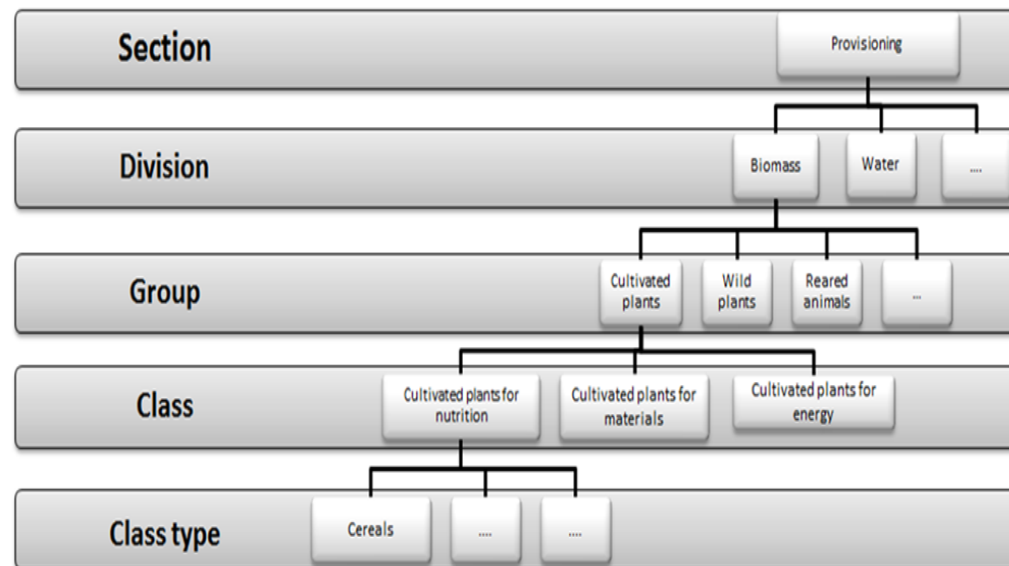
Environment - End product - Direct use/non-use - Direct user
Services defined as per the linkages in these 4 categories

CICES structure, more detail

Section	Division	Group	Class	Class type
Provisioning (Biotic)	Biomass	Cultivated terrestrial plants for nutrition, materials or energy	Cultivated terrestrial plants (including fungi, algae) grown for nutritional purposes	<i>Crops by amount, type (e.g. cereals, root crops, soft fruit, etc.)</i>
Regulation & Maintenance (Biotic)	Transformation of biochemical or physical inputs to ecosystems	Mediation of wastes or toxic substances of anthropogenic origin by living processes	Bio-remediation by micro-organisms, algae, plants, and animals	<i>By type of living system or by waste or subsistence type</i>

Questions

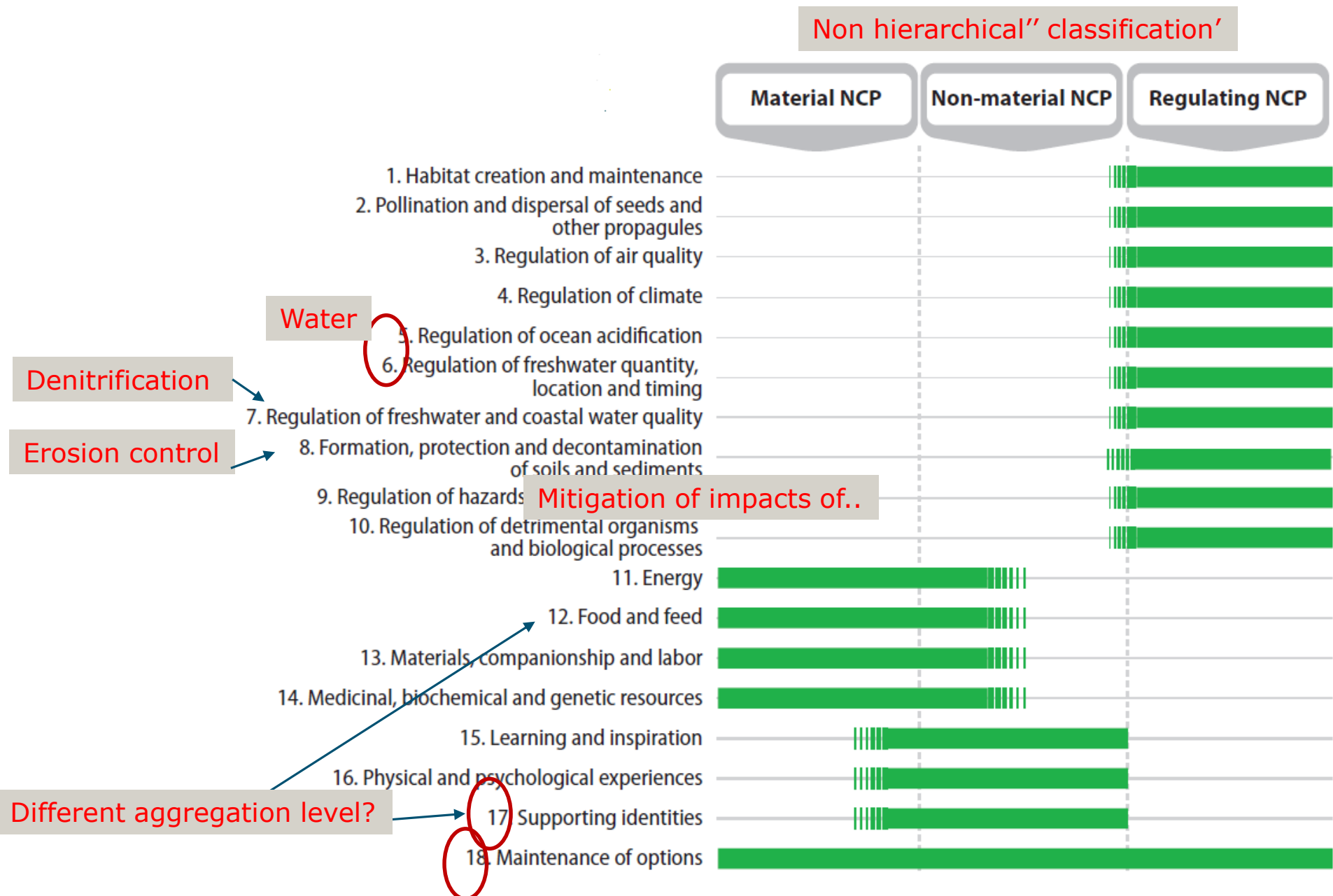
- Some goods can be used both for materials and for energy (palm oil)
- Effectively, there are 6 levels in this system, which is a lot compared to (other) statistical classifications; How many levels in hierarchy are needed?



IPBES

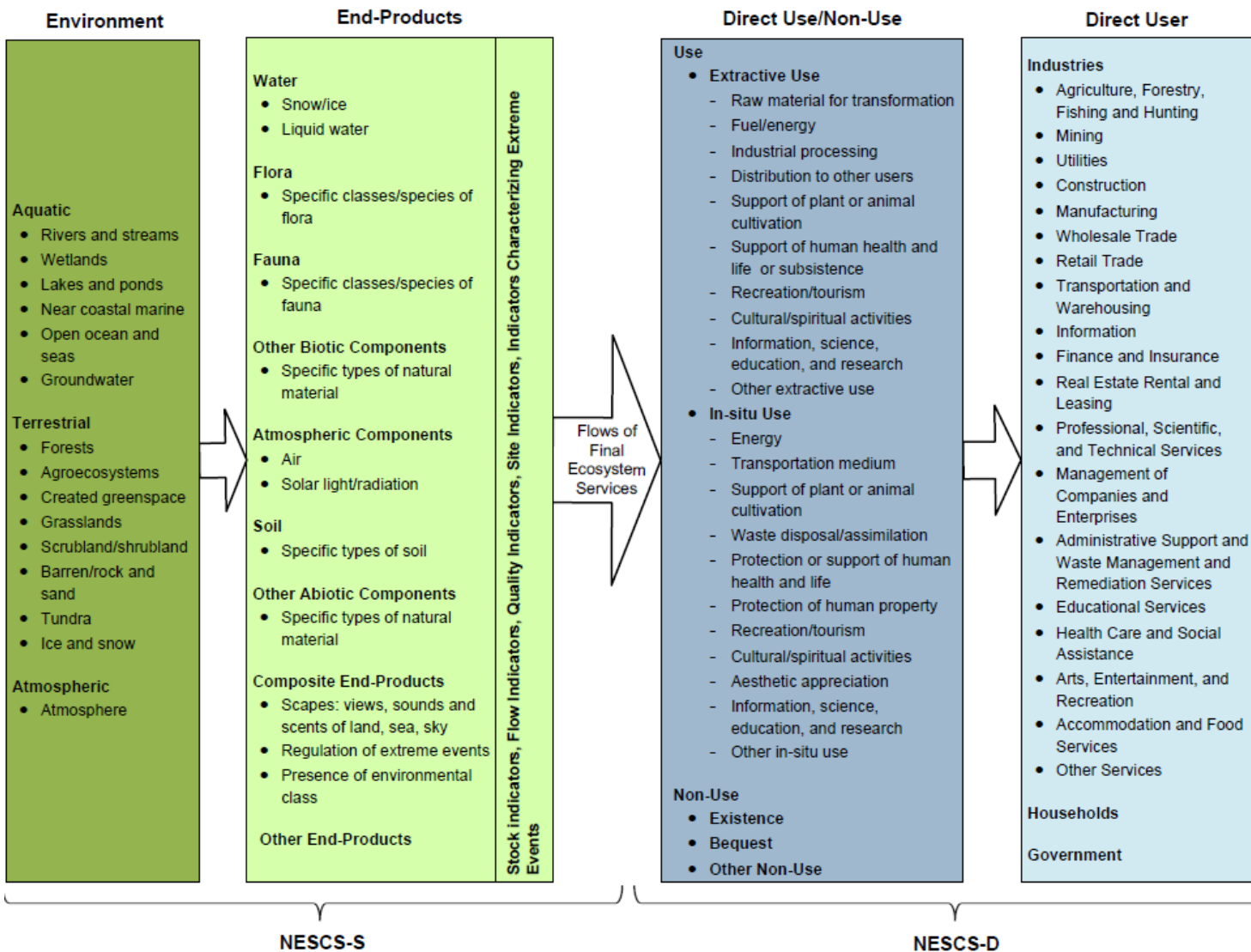
- “ES are part of NCP, that is, the ES approach represents an important subset of ways to understand nature’s diverse contributions to people”.
- NCP include 18 reporting categories in three broad groups of material, non-material and/or regulating NCP.
- IPBES states that the NCP are provided by particular organisms, by ecosystems, or by particular mixtures of organisms, assembled naturally or artificially
- NCPs in the IPBES interpretation can be positive or negative according to the cultural and socio-economic context of the stakeholders

IPBES categories



NESCS structure

Principles consistent with SEEA:



- Supply by ecosystem, use by sector
- At the point of harvest, the end products (e.g. a berry in the forest) become an ecosystem service

Questions

- How to guide identification of ES & ensure consistency between efforts?

Example NESCS

Principles align with SEEA:

Table 4-4. NESCS-S Detailed Structure: Examples (continued)

Environmental Class	Environmental Subclass	End-Product Class	End-Product Subclass Examples
2. Terrestrial	24. Grasslands	2. Flora	<ul style="list-style-type: none"> • berries • tubers, grasses • flowers, seeds • fungi
		3. Fauna	<ul style="list-style-type: none"> • ducks • rabbit • deer • elk • buffalo • bison • grasshoppers • fox • wolf • coyotes • different species of pollinators, depredators and (pest) predators
		4. Other Biotic Components	<ul style="list-style-type: none"> • deer antler velvet • eggs • dried flowers
		6. Soil	
		7. Other Abiotic Components	
3. Atmospheric	31. Atmospheric	8. Composite End-Products	<ul style="list-style-type: none"> • viewsapes • sounds and scents • presence of the environmental class
		5. Atmospheric Components	<ul style="list-style-type: none"> • wind • weather
		1. Water	
		3. Fauna	<ul style="list-style-type: none"> • birds
		8. Composite End-Products	<ul style="list-style-type: none"> • thunder • wind blowing • clouds • sunsets • viewsapes • presence of the environmental class

- Supply by ecosystem, use by sector
- At the point of harvest, the end products (e.g. a berry in the forest) become an ecosystem service

Questions

- How to guide identification of ES & ensure consistency between efforts?

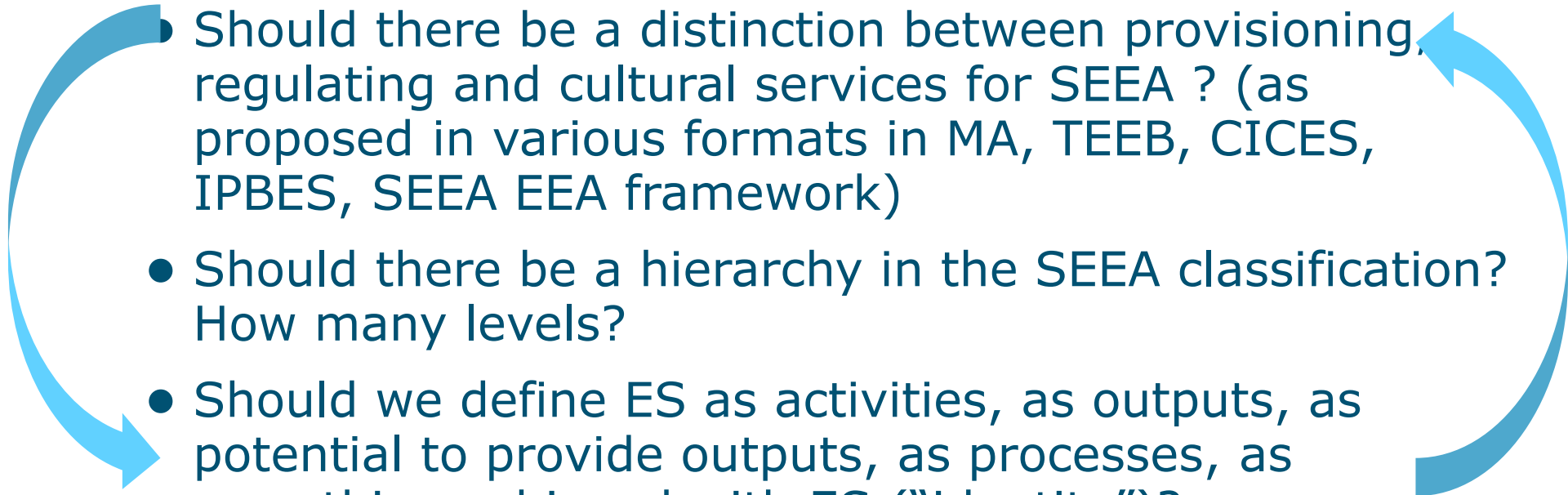
Ecosystem services in the SEEA EEA

- An ecosystem services is the contribution of the ecosystem to a benefit for people.
- For example, a forest provides wood that can be harvested, at the moment this standing wood is harvested there is a flow from the ecosystem to the economy. The physical volume of this flow (the ES) is the amount of harvested wood.
- The ecosystem contributes standing timber, people contribute labour and machinery and intermediate inputs (e.g. fuel) to harvest the wood.
- The harvested wood is a benefit (and is captured in the SNA)
- The ecosystem accounts specify the contribution of the ecosystem to economic activity (production or consumption by households)

Table group discussion

■ Questions to be discussed:

- What are the principles that are relevant for defining and classifying Ecosystem services (ES)?
- How can ES be linked to benefits (that may be in the SNA) and beneficiaries (is simplicity possible?)
- To what degree is alignment with existing classification possible/helpful, considering the various points where these 3 systems align or differ
- Should there be a distinction between provisioning, regulating and cultural services for SEEA ? (as proposed in various formats in MA, TEEB, CICES, IPBES, SEEA EEA framework)
- Should there be a hierarchy in the SEEA classification? How many levels?
- Should we define ES as activities, as outputs, as potential to provide outputs, as processes, as something achieved with ES ("identity")?



Report (ppt preferred) by table group

- Table groups are free to decide if there are any missing questions they would like to include in the discussion and reporting
- 45 minutes for discussion, followed by 45 minutes of presentation and plenary discussions
- 29 people -> 4 table groups ?