

The European Commission's science and knowledge service

Joint Research Centre

Research Area 2 Ecosystem condition





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Your annual physical check-up

Which questions?

				
Indicators				
Units	yes/no	kg	mm Hg	beats/min
Type	pressure	state	state	performance
Reference	no	$19 < \text{BMI} < 25$	120/80	60-200
Aggregate		healthy	unhealthy	

The condition of ecosystems

What? Reflects the overall quality of an ecosystem asset in terms of its characteristics.

- Which **characteristics** are relevant to measure ecosystem condition
- Which **indicators** are relevant to measure specific characteristics
- Against which **reference** can we evaluate indicator values
- How to **aggregate** indicators
- Condition for what?

Working group on ecosystem condition

- Joachim Maes (European Commission - Joint Research Centre, Ispra, Italy)
- Bálint Czúcz (European Topic Centre on Biological Diversity, Muséum national d'Histoire naturelle, Paris, France)
- Mandy Driver (South African National Biodiversity Institute, Cape Town South Africa)
- Bethanna Jackson (Victoria University of Wellington, Wellington, New Zealand)
- Heather Keith (Australian National University, Canberra, Australia)

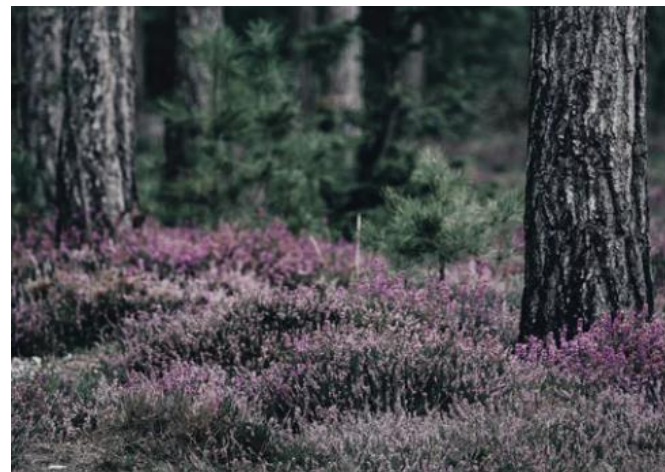
Characteristics of ecosystem condition



Characteristics of ecosystem condition

- Propose a general typology of characteristics or attributes for ecosystem condition
- Clarify the link between non-ecological characteristics (pressures, drivers of change, ecosystem properties) and ecosystem condition.
- Pressures as a surrogate for condition

Indicators for ecosystem condition



Marine ecosystems

Pressure indicators

Water quality

Terrestrial ecosystems

Land cover and land use
statistics

Freshwater ecosystems

Biodiversity indicators

Water quality

Indicators for ecosystem condition

- What are criteria to include or exclude indicators from an indicator framework to measure ecosystem condition with the specific purpose of ecosystem accounting
- (Reviewing existing indicators or indicator frameworks)
- (Proposals for indicators or examples of indicators)

Reference conditions

- Develop advice on how to define a reference condition
- Develop advice on what to do if no reference condition can be defined. (Desired condition)

Aggregation

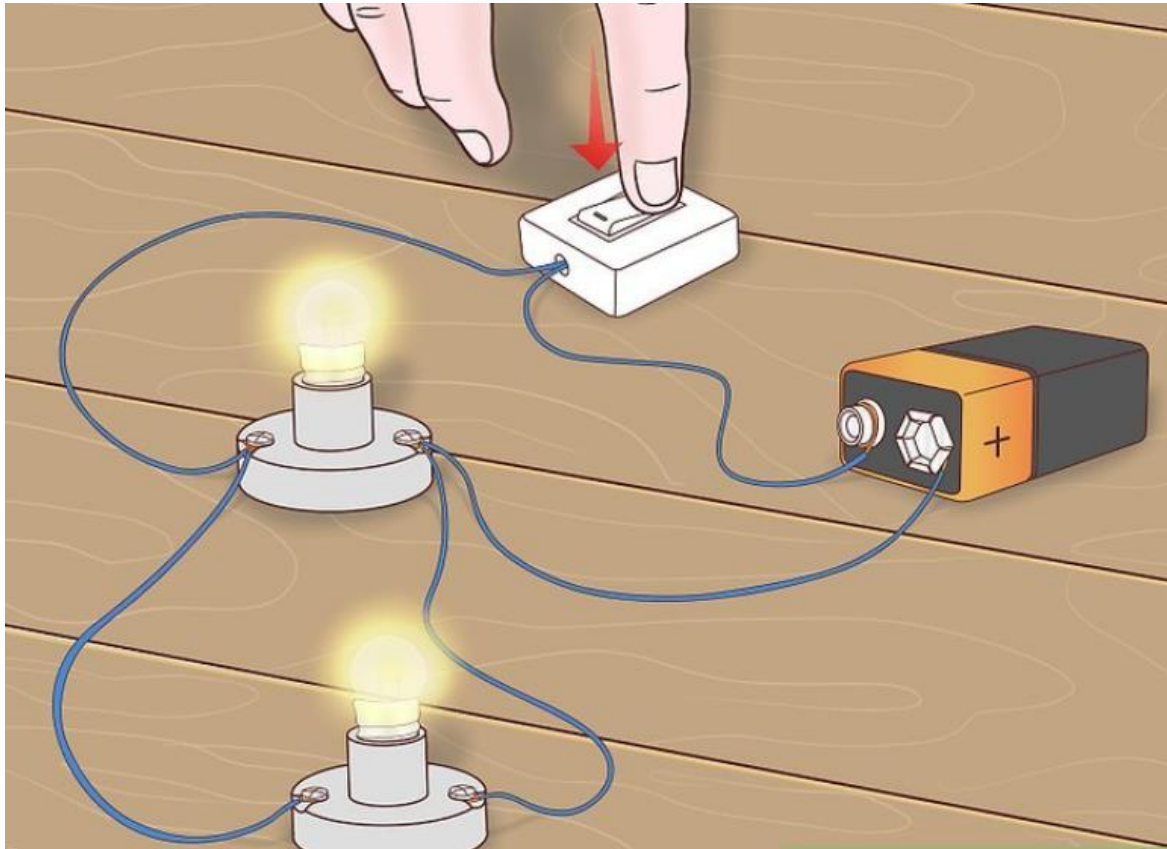
Aggregation of indicators to

- Analyse trends within ecosystem types
- Compare condition between ecosystem types

Proposals for a composite indicator on ecosystem condition (advantages, drawbacks, methods)

Proposals for reporting the account

The link between ecosystem condition and ecosystem services



The link between ecosystem condition and ecosystem services

- Review definitions of ecosystem capacity (or of capacity used in other disciplines as well); describe the differences; develop a set of options for a definition which allow linking condition and service accounts;

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