Assessment framework

Resources - ES / Uses /Governance

The Resources or Ecosystem Services/Uses/Governance view of the system is an operational approach, based on system thinking, social-ecological systems, stemming from different operational management approaches (including DPSIR, ARDI), aiming at:

- Integrated modelling: representing ecological, economic and social processes in an integrated way, considering objects which are already social-ecological sub-systems

- Integrated assessment: each category of objects within the system deserve its own assessment criteria or framework (state variable for R(ES), objective functions for uses and governance)

It helps define complex scenarios.

- Change in the considered system should not always be considered 'all things being equal', it may be useful to consider the whole system representation (system design) to build multi-forcings scenarios;

- Change in the governance component of the system is not just adding a new norm or a new use-right, it is also about how new management measures are implemented, in the context of existing governance mechanisms: taking into account that a general rule may be implemented through different practices (institutional arrangements).

Participatory assessment toolbox

participatory-assessment.eu

Definitions

- **Resources or Ecosystem services:** The amount of resources or ecosystem services which is available for the uses, without threatening the ecosystem sustainability which could call for management measures (norms, access rules, technical measures for pollution prevention or remediation, etc).

It is about carrying capacity and thresholds (not on bacteria early life and climate change in relation to solar cycles)

- **Governance:** The norms, rules, institutional arrangements and technical measures which are used to manage the relationships between people and nature and between people about nature, to preserve or restore its status.

It is about access-rights and technical choices (not constitutional law and philosophical dimensions of representative democracy)

- **Uses:** The human activities which use resources or ES through exploitation or pollution, according to existing rules and standard practices.

It is about fisheries, tourism, recreational activities, etc (not on utility maximisation and Pareto optimum situations)

Where it comes from

From DPSIR / Ecosystem services approach / ARDI

Compared to those other assessment frameworks, the RUG approach adds explicit representation of governance, more on law, rules and norms to better prepare management scenarios.

Governance in relation to the use of resources or ecosystem services

An economic view of the main social issues raised by resources 'bad' uses:

- pollution (external effect of a Human activity on the environment)
- overexploitation (risk of resource depletion)
- competition (for the allocation of space and resources to exclusive uses)
- congestion (lack of space in a public access regime)
- coordination ("soft" problem of competition and/or congestion)
- conservation (risk of biodiversity losses)
- remediation (needs for improved environmental quality)

In response to these economic concerns, many governance devices are already used, some of them will change, a few ones could be added:

- Regulation of access to resources (co-management, institutional arrangements)
- Property rights shift (privatisation/collectivisation)
- Legal management rules (standards and norms)

- Economic incentives (taxes, subsidies, compensations)

- Restoration or mitigation (technical intervention on the natural system)

- Deliberation for the definition of shared approaches, objectives, methods, means and measures

From Rémi Mongruel, training workshop on System Approach Framework during the SPICOSA European project, 2011.