



# PDS on Transdisciplinary Approaches to Integrating Policy and Science for Sustainability

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Discipline: Economist, agrarian economy, ecological economics, political ecology

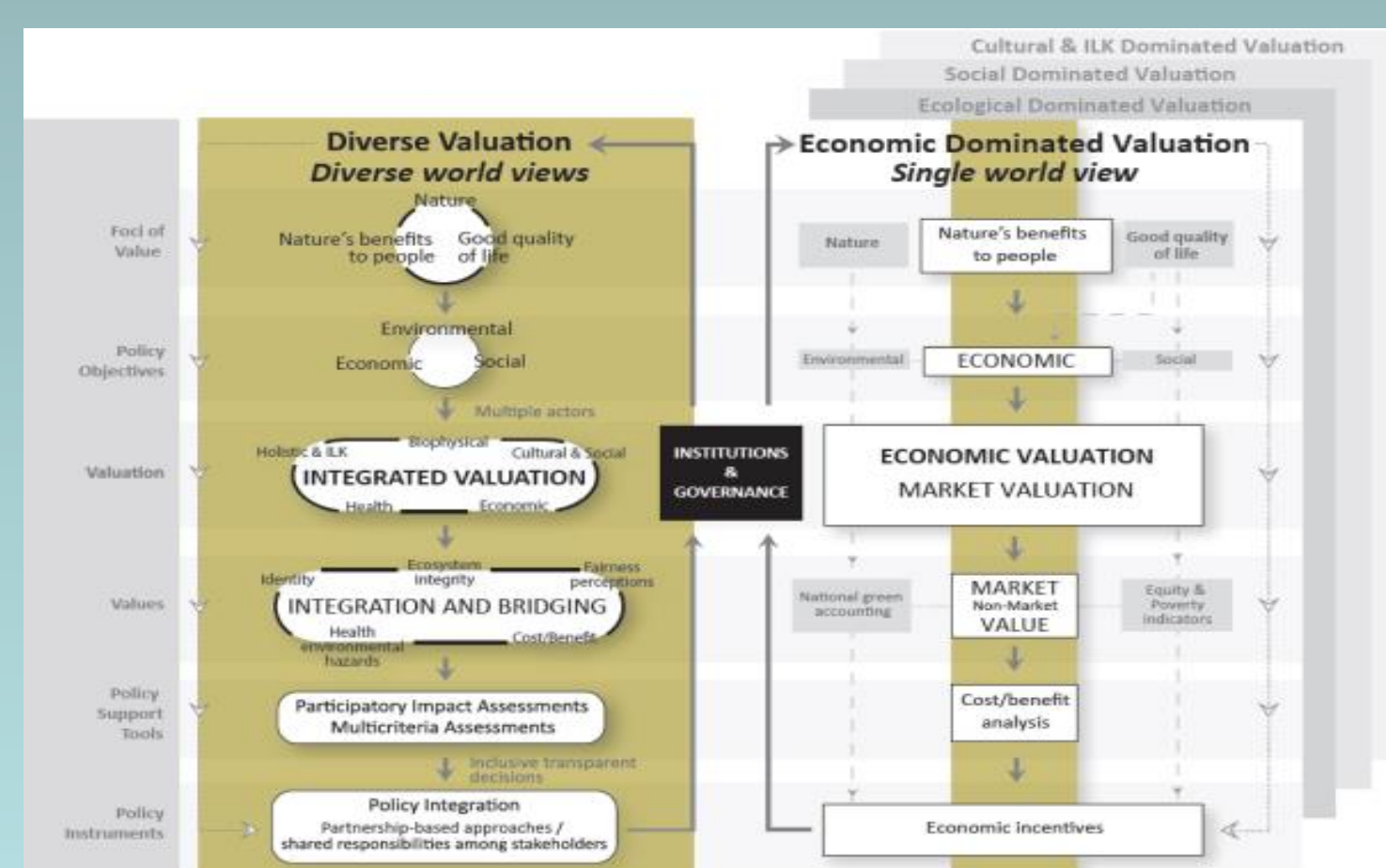
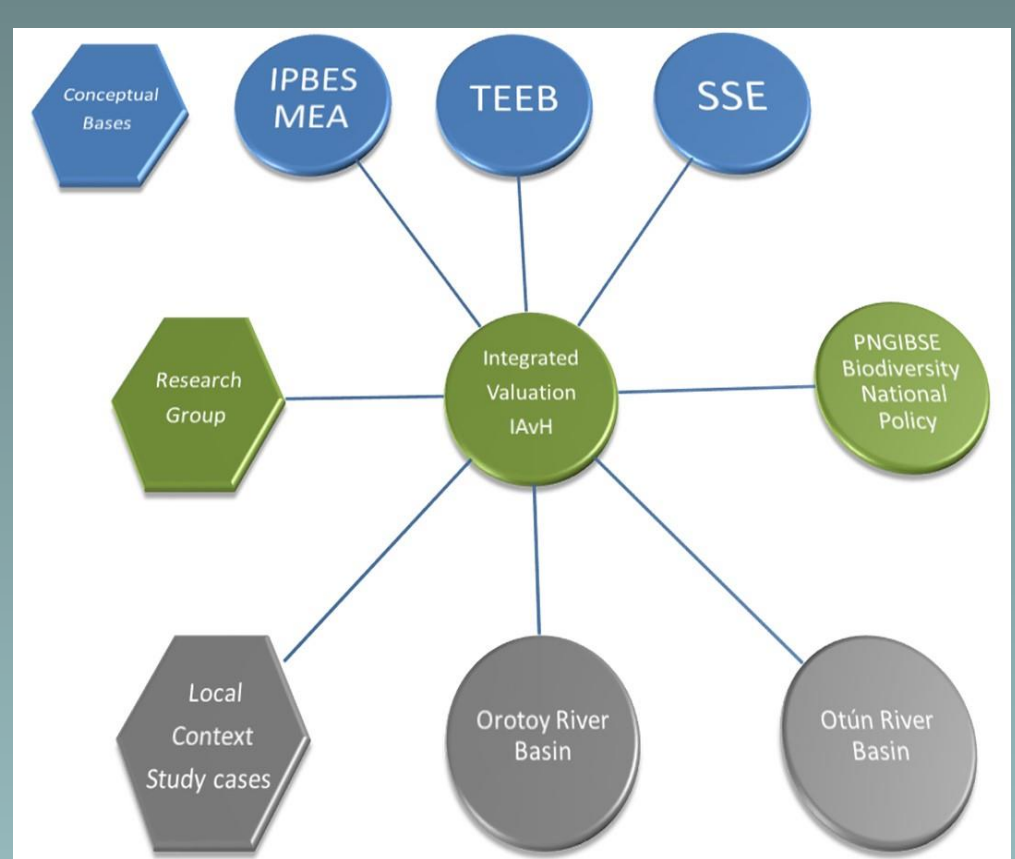
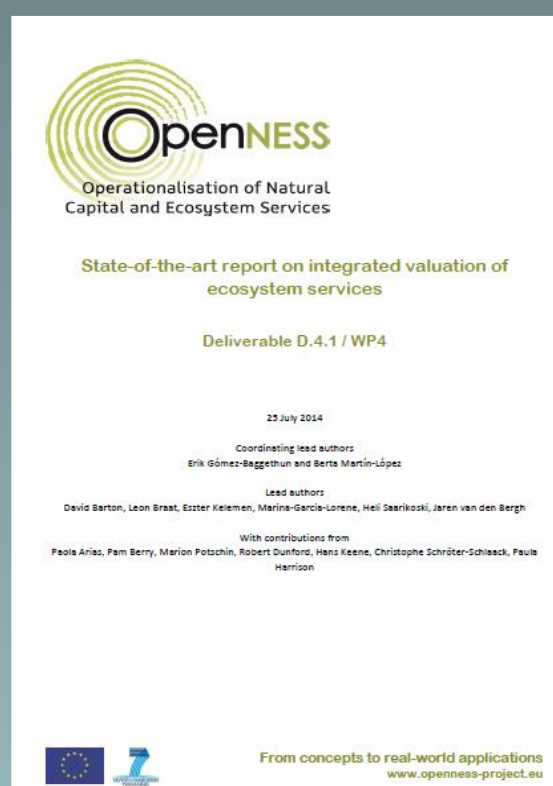
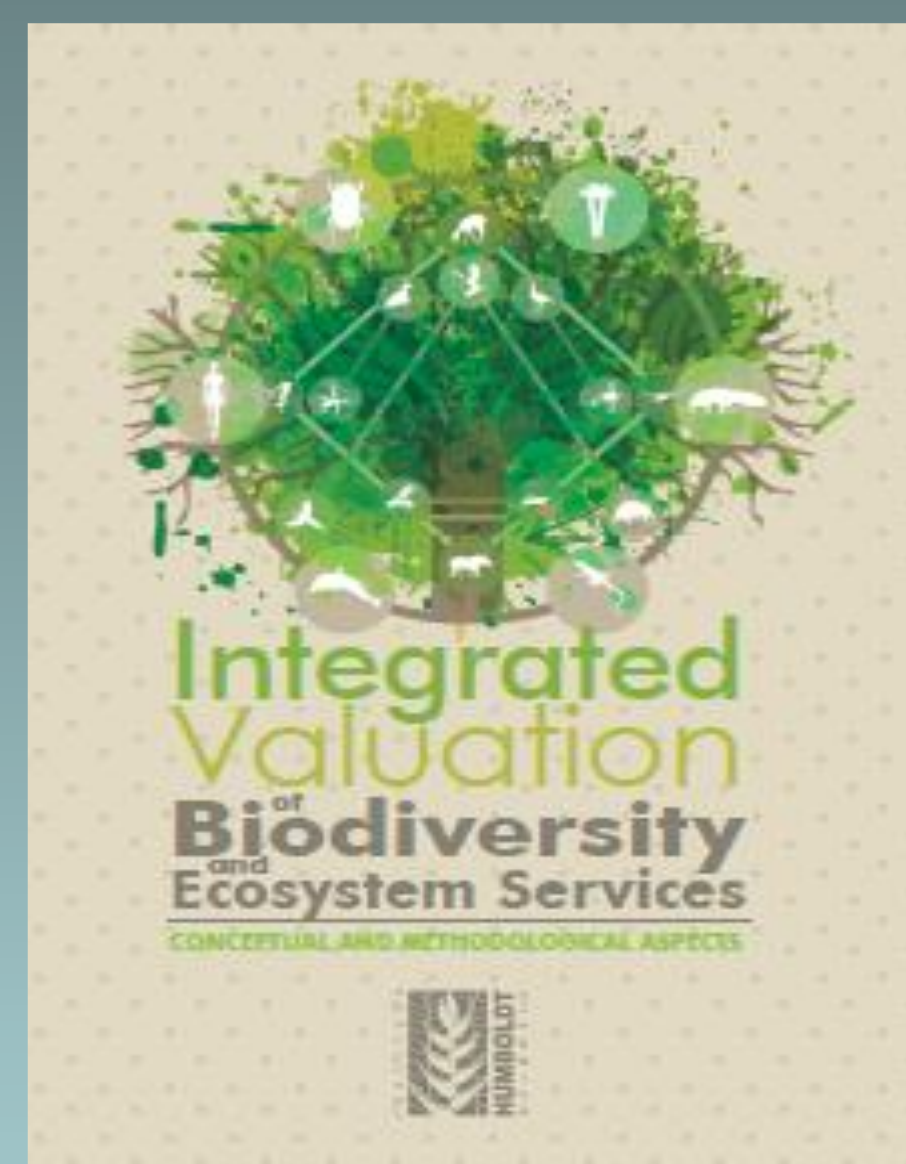
Currently Research: Integrated Valuation of Biodiversity and Ecosystem Services and environmental conflicts

Sector: National Research Institute

Areas of Interest: Environmental conflicts, valuation, political ecology, landscape management



## Background



Source: Valuation Guide IPBES 2016 /

## Environmental Colombian reality

Contribute to the Landscape management through the "inclusion" of the multiple possible values associated with biodiversity and ecosystem services and the identification of the conflicts associated. Support for decision-making processes in contexts where there are heterogeneity of actors with diverse and contradictory interests and values.

- Complex reality (Multiple relations and actors associated with ES)

- Conflictive reality (Conflicting relations between actors associated with ES)

- Heterogeneous reality (different regions, different cultures, and different ways to understand "development")

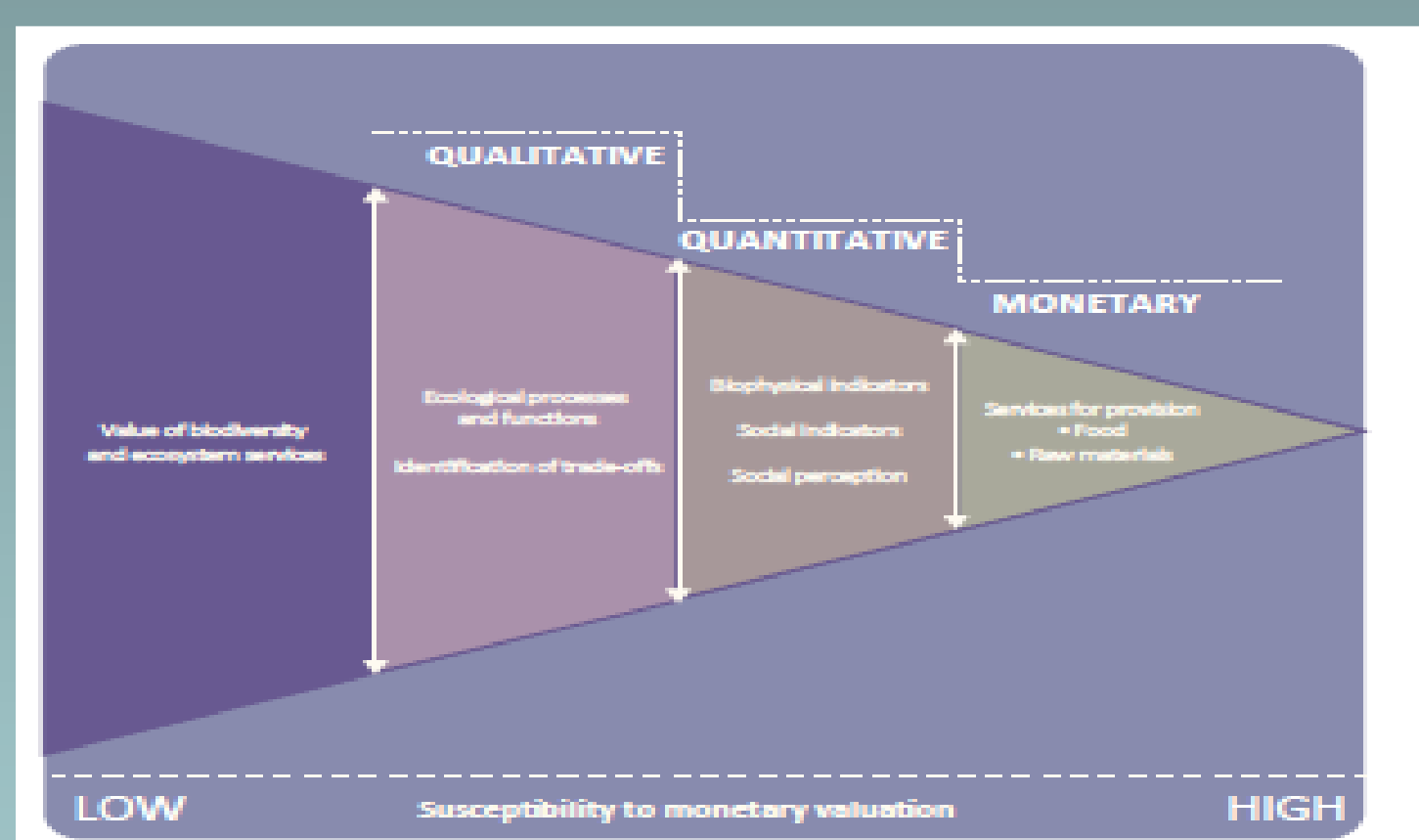
- Has been studied in a fragmented way



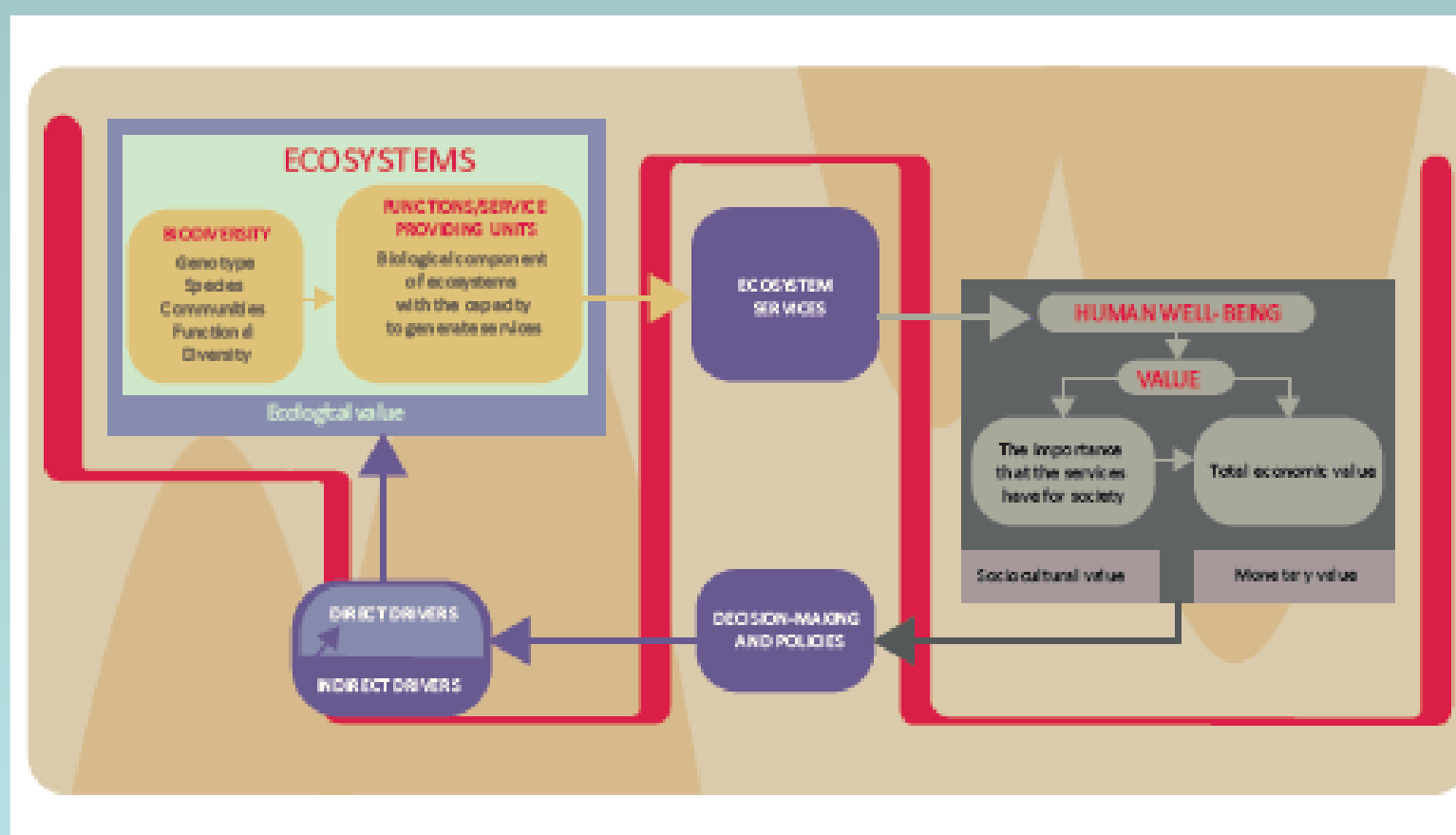
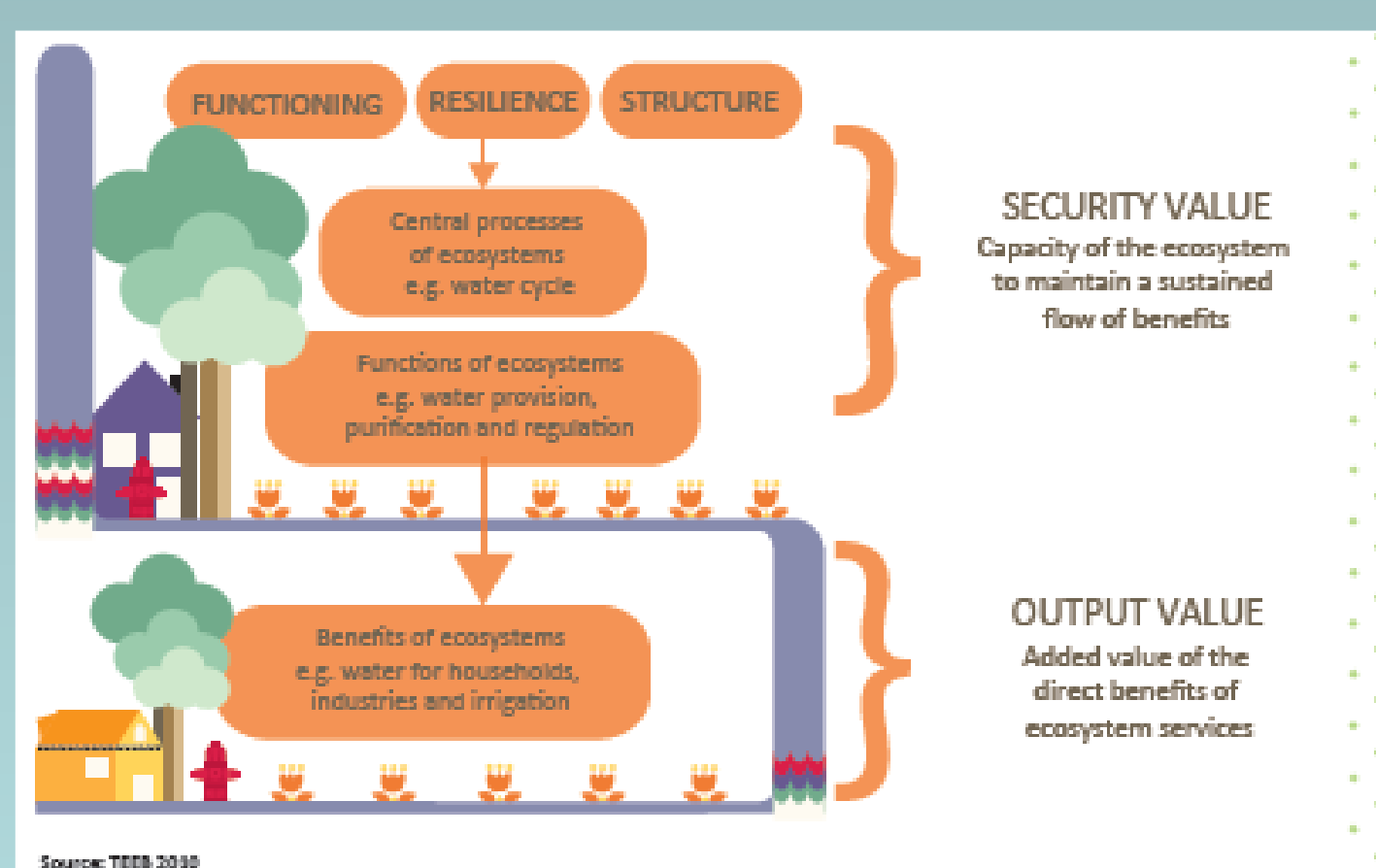
Needs a more holistic and integral analysis: Integrated valuation

## What must integrated valuation include?

- Ecological, socio-cultural and economic values
- Qualitative and quantitative values (including biophysical, social and economic indicators)
- Monetary and non-monetary values
- Analysis of trade-offs
- Valuation as part of a process



Source: Rincón et al 2015



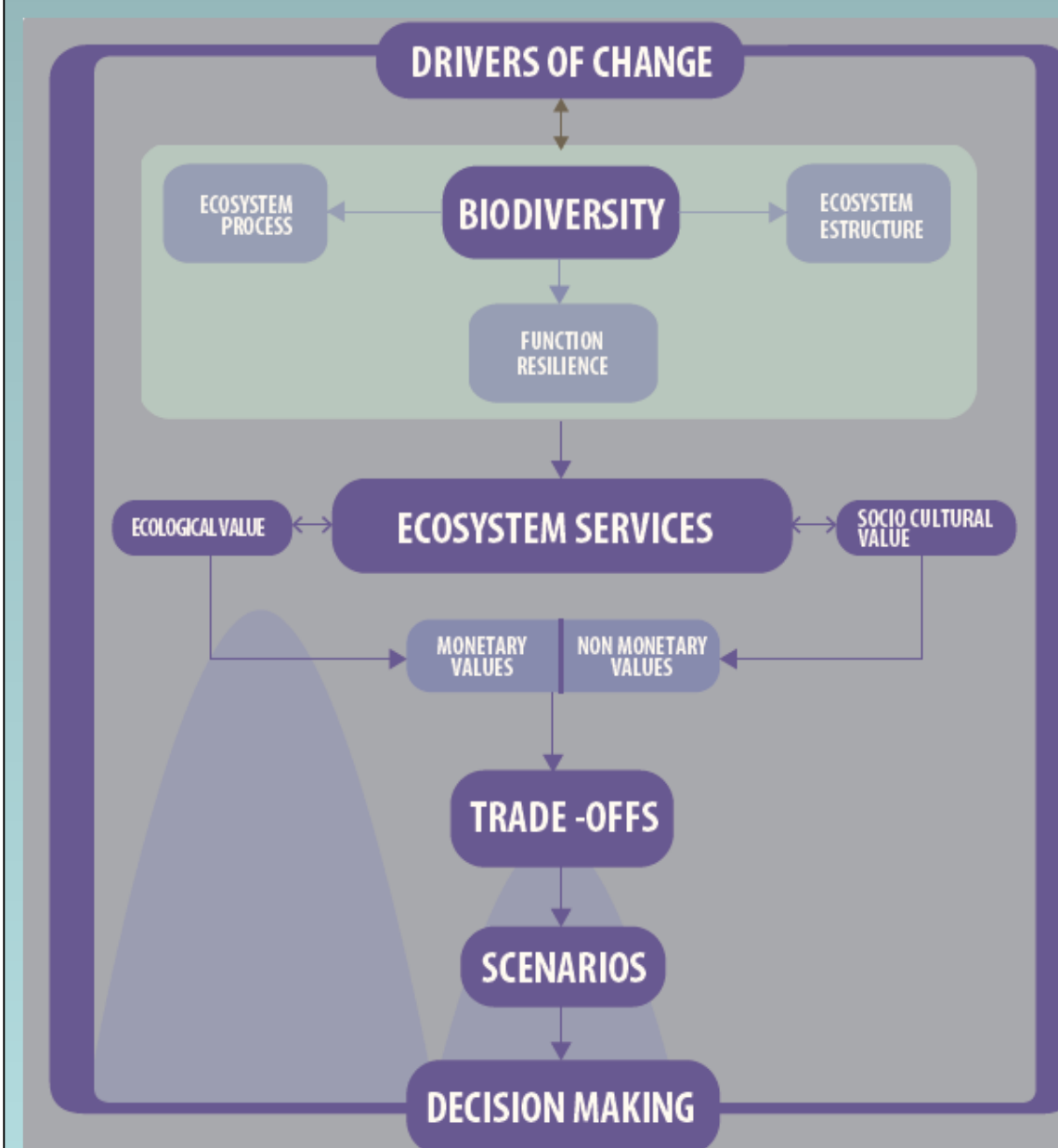
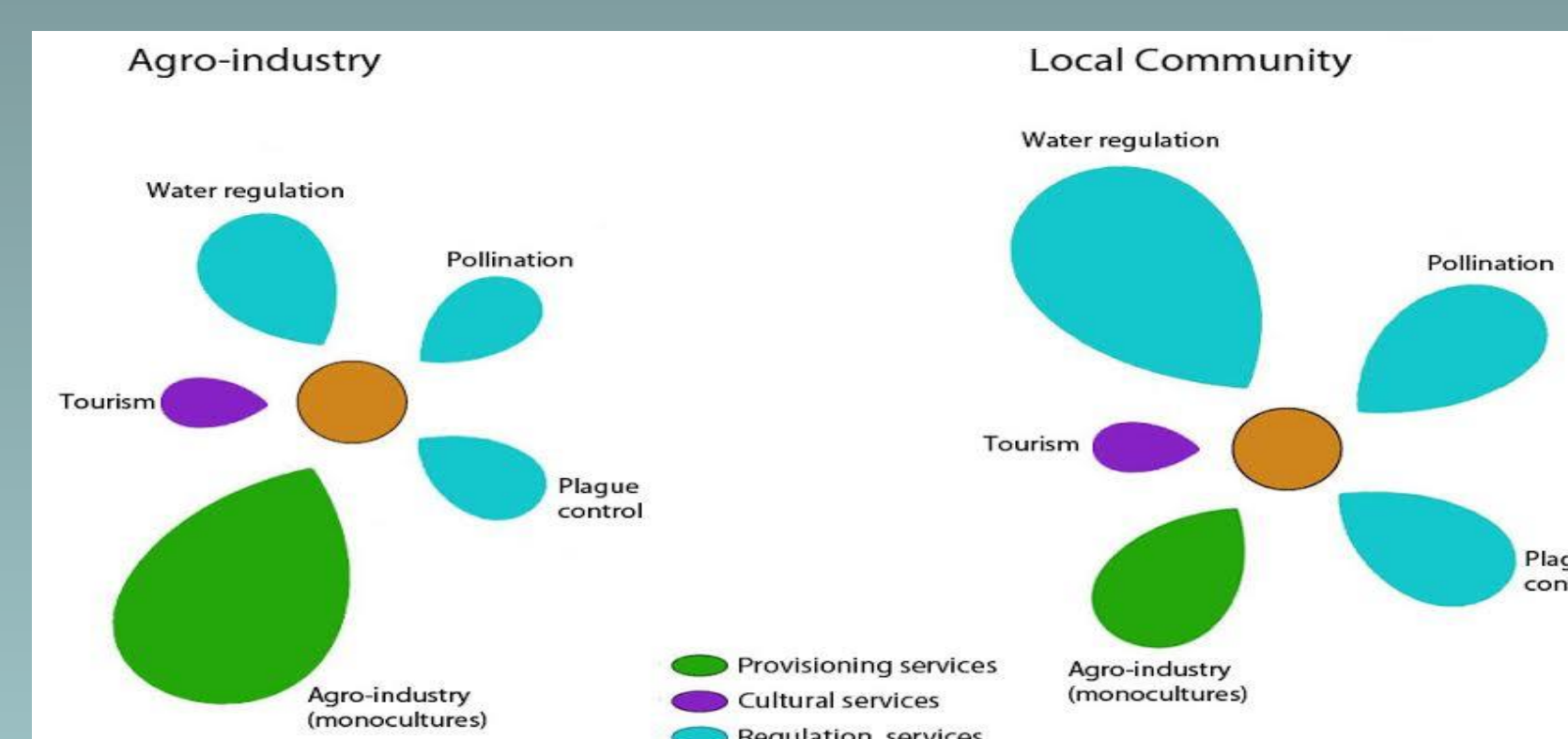
## Trade off analysis

**Spatial - trade-offs** (benefits in one place – costs in another place / (functions in one place and services in another place)

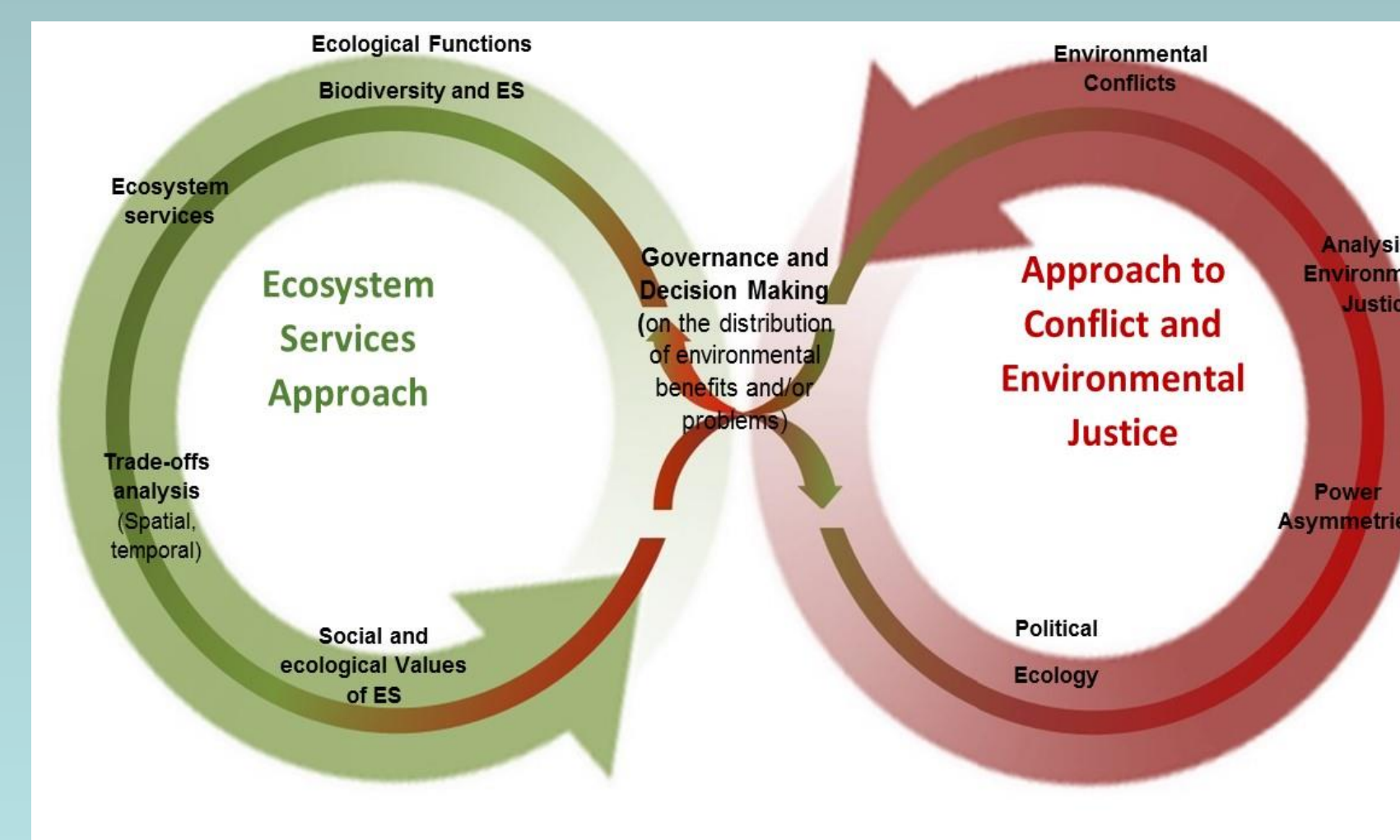
**Social groups - trade-offs** (someone wins – someone loses / different languages of valuation)

**Temporal trade-offs** (present benefits - future costs)

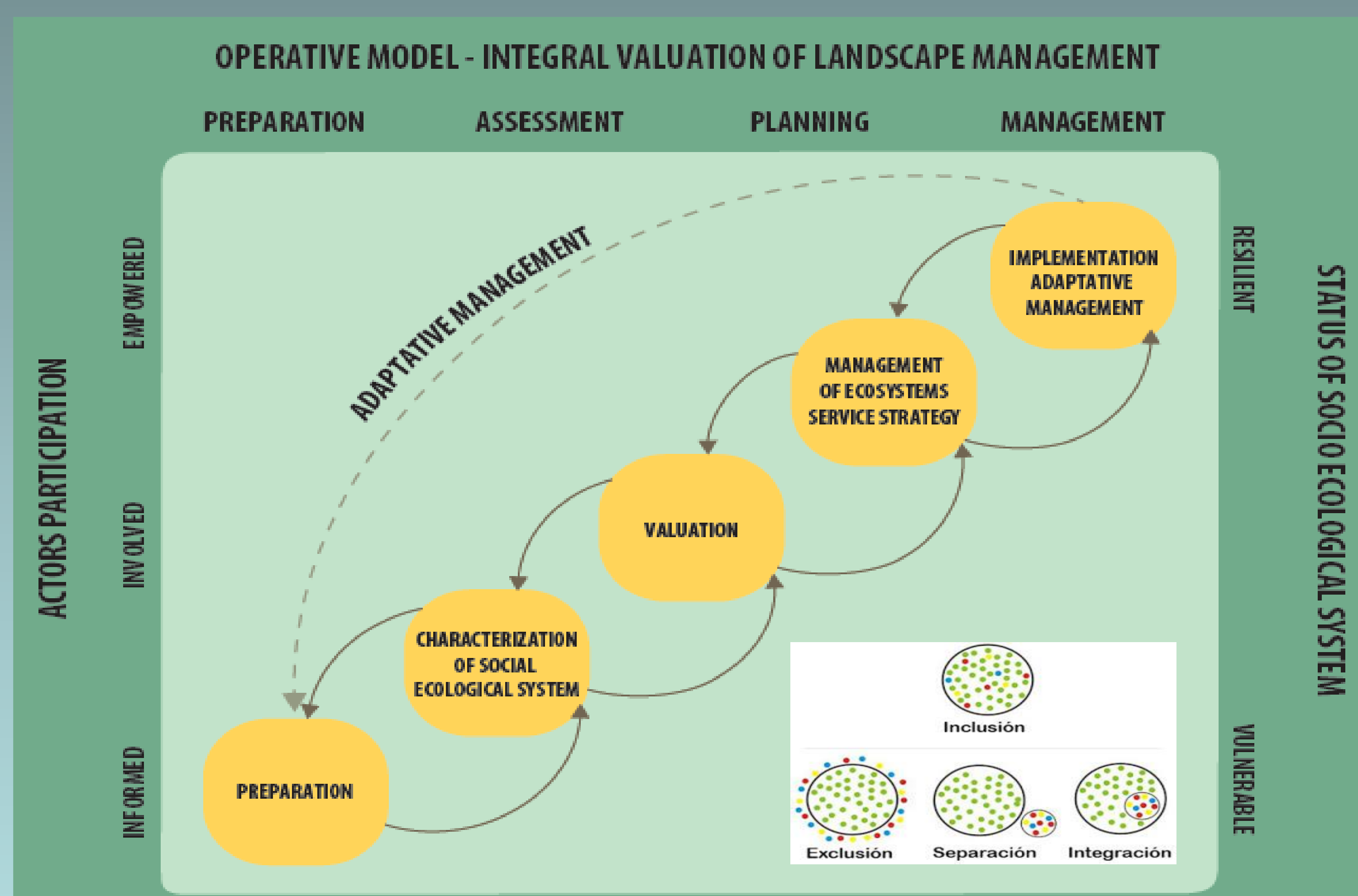
**Trade-offs among ecosystem services** (for example, provisioning services improving at the expense of regulating services)



Source: Rincón et al 2015

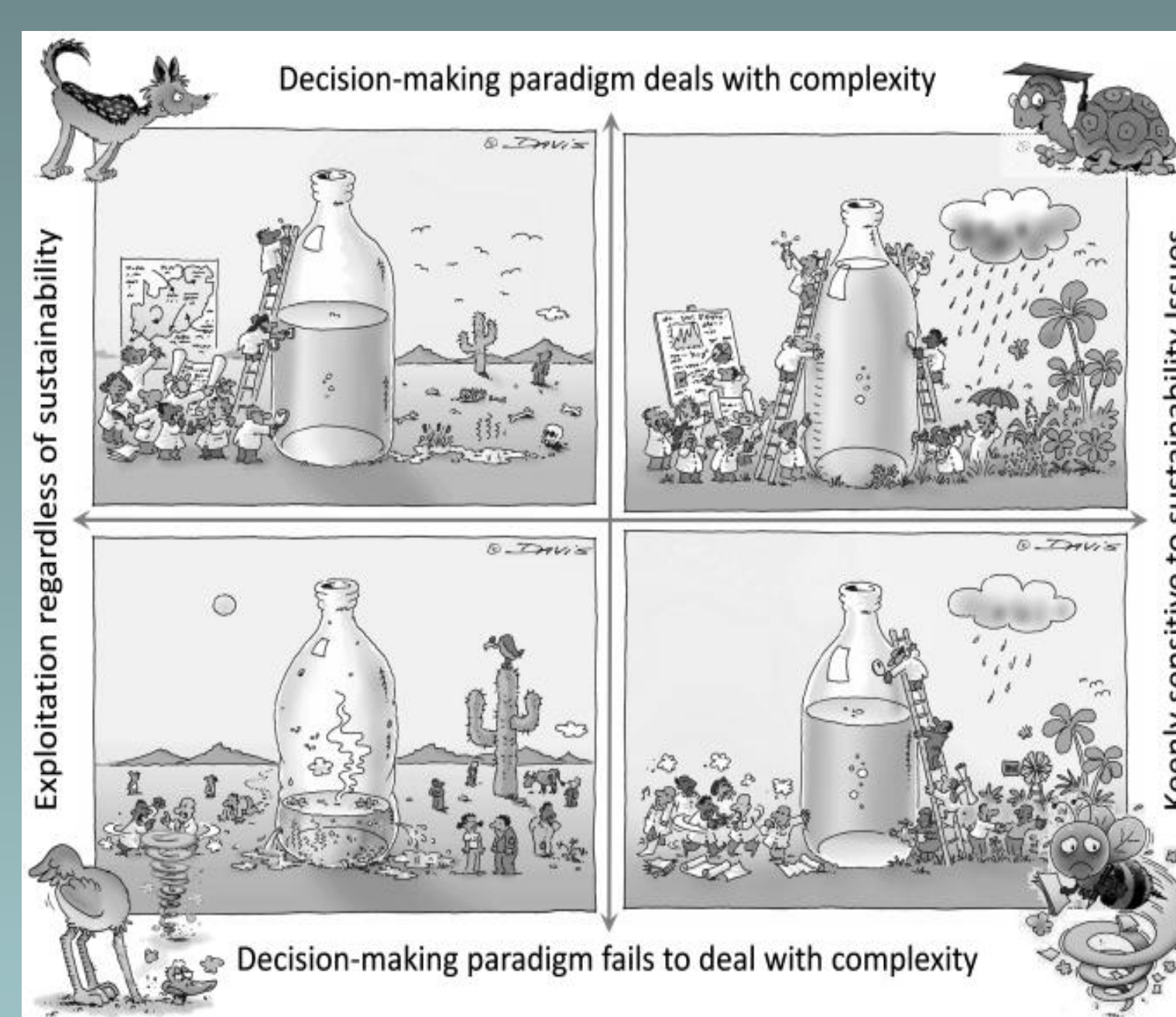


## Valuation as part of a process

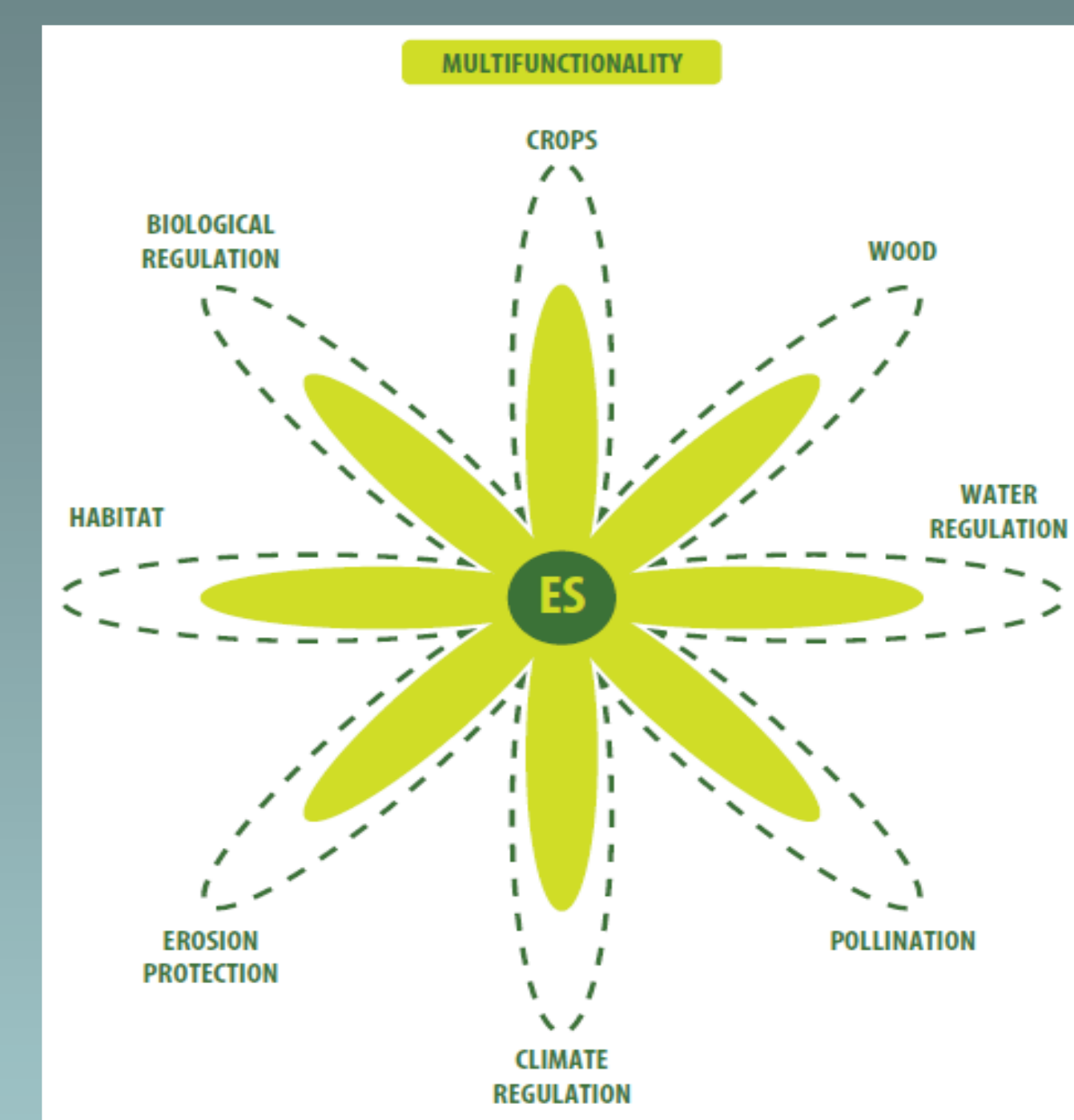


Source: Rincón et al 2015

## Scenario Analysis



Source: Funke Nikki et al 2013



Source: Rincón et al 2015

- An important function of scenarios analysis in the context of the IVBES is that it provides an approach for a structured reflection about the possible implications of different decisions.
- In the operative model of integrated valuation, scenarios analysis represents:
  - 1) the different tradeoff
  - 2) Evidence of the different languages of valuation
  - 3) Different valuation methods.
- We have political decisions supported by technical research more than just technical decision

## Importance of an integrated valuation and analysis of scenarios in the developing world

- Evidence the different trade-offs and socioenvironmental conflicts, a key factor to understand the local reality
- Allows a participative construction between the different actors, which is important and fundamental to empowerment and trust
- Allows having a better diagnosis of the local complexity
- It is a fundamental instrument for the determination of appropriate policies to local contexts.
- Tool to raise awareness about the importance of the biodiversity, the ecosystem services and the different implications and impacts of its degradation.

