



CA21158 - Enhancing Small-Medium Islands resilience by  
securing the sustainability of Ecosystem Services

# Understanding Ecosystem services (ES) in small and medium islands (SMI)

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# Multiple ways in which people benefit from nature



Food



Jobs and livelihoods



Cultural heritage



# Setting the scene for Ecosystem Services

*...or not?*

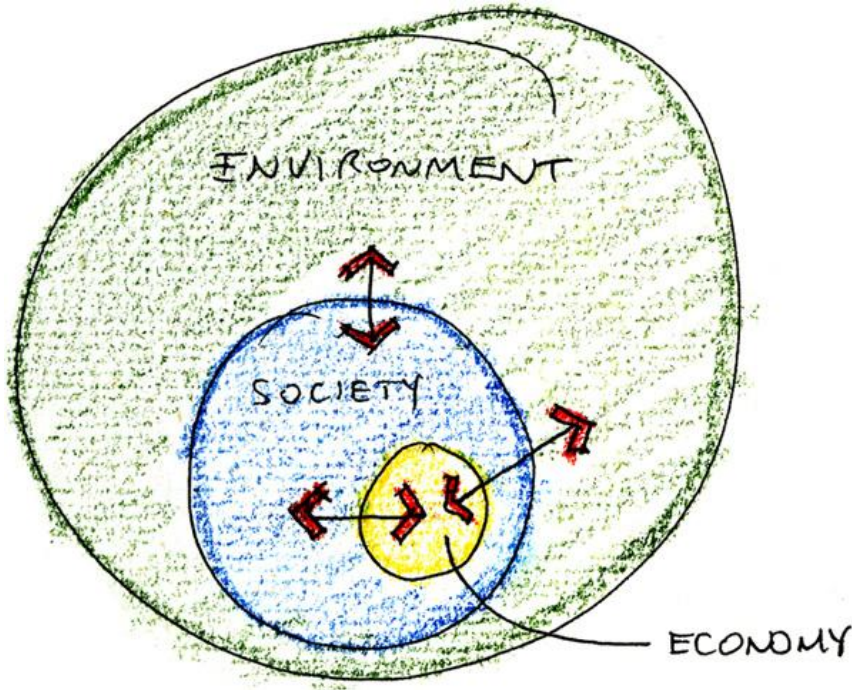
*Ecosystem services?*

*Nature's contributions to people?*

*Ecosystem contributions to society?*



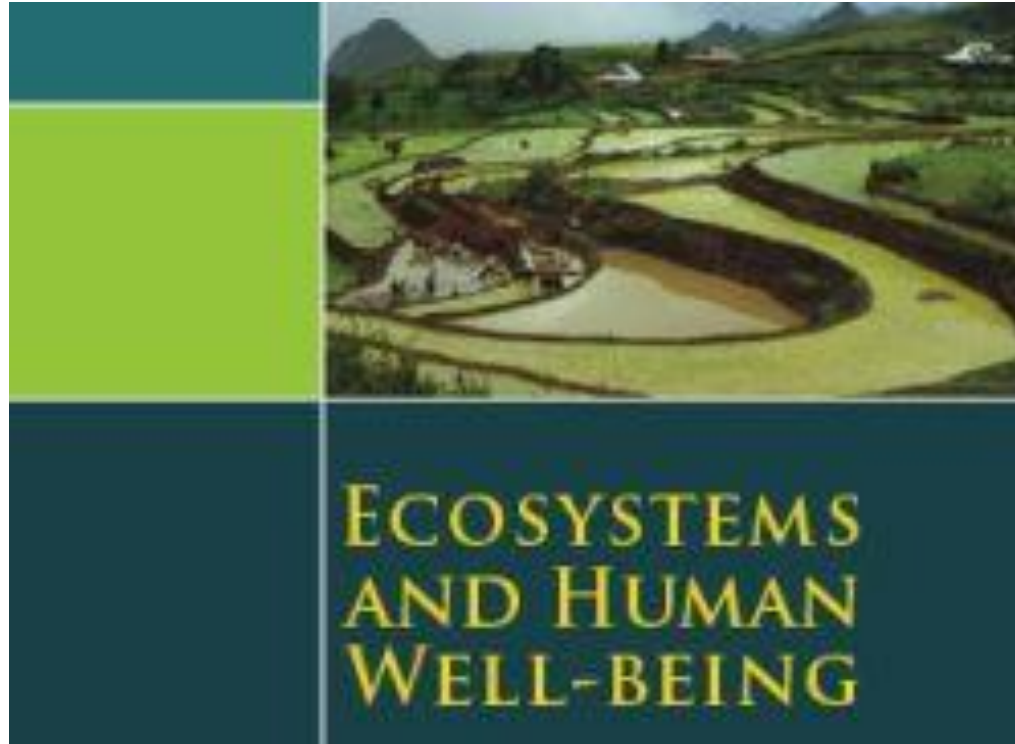
# Setting the scene for Ecosystem Services



*A need to put nature in  
the discussion table*

*A need to “value” nature*

# Setting the scene for Ecosystem Services

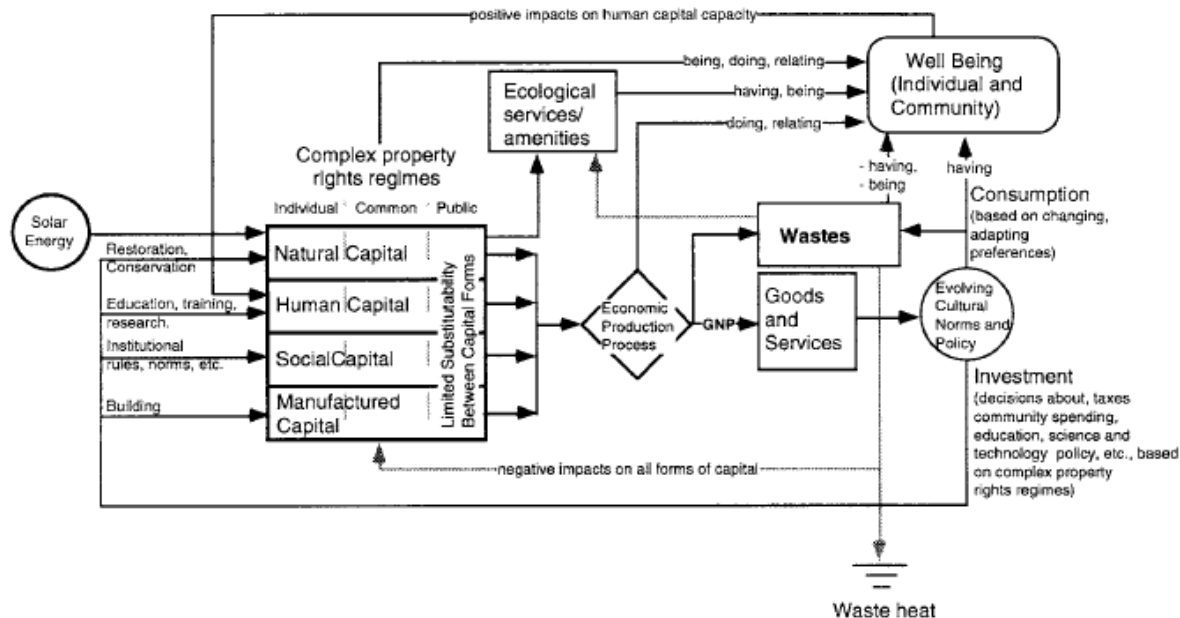


***“The ultimate goal of ES valuation is to improve the well-being of every individual, now and in the future.”***

***Millenium Ecosystem Assessment,  
2005***

# From ecological economics to plural typologies

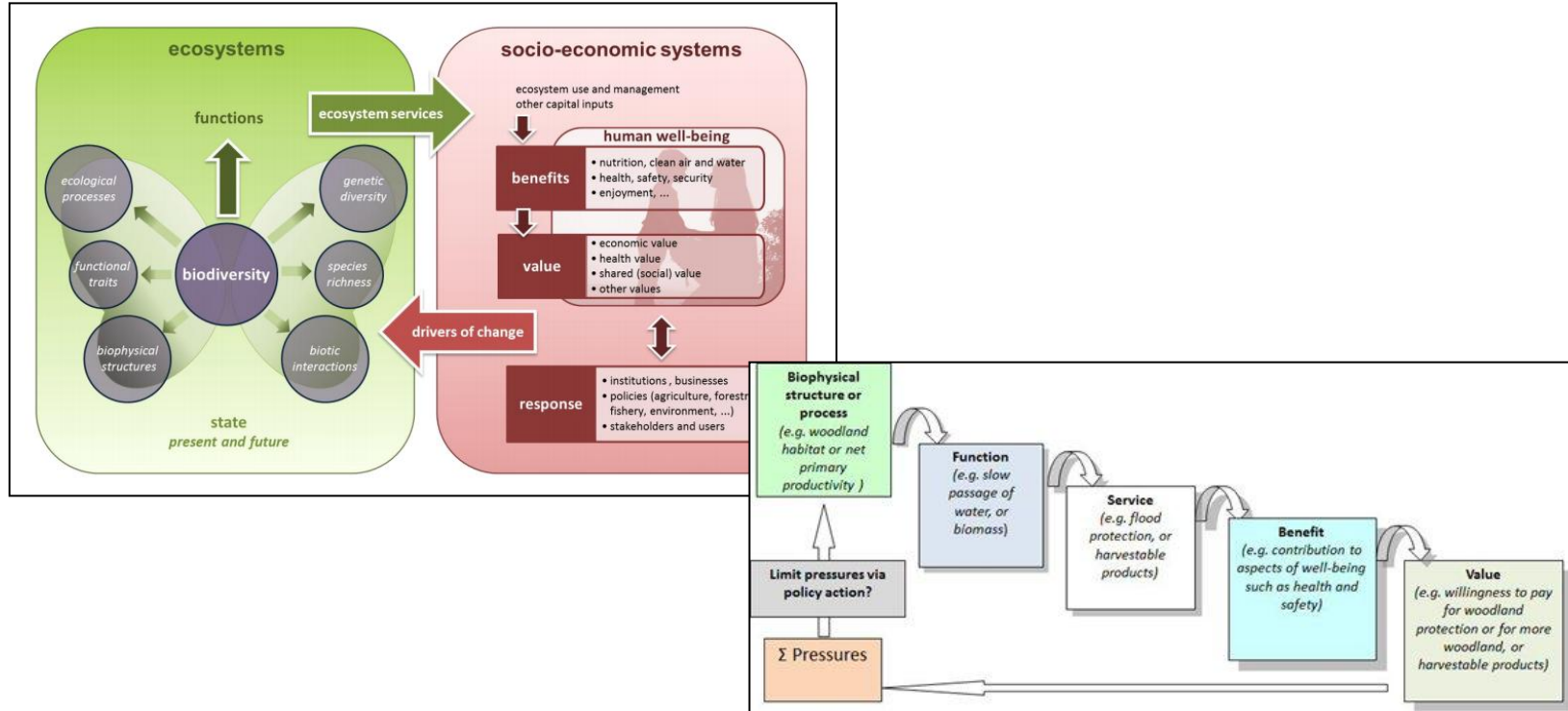
(b) Expanded Model of the Ecological Economic System



Costanza, R., *Visions, values, valuation, and the need for an ecological economics* Bioscience, Vol. 51, No. 6, pp. 459-468. Jun 2001

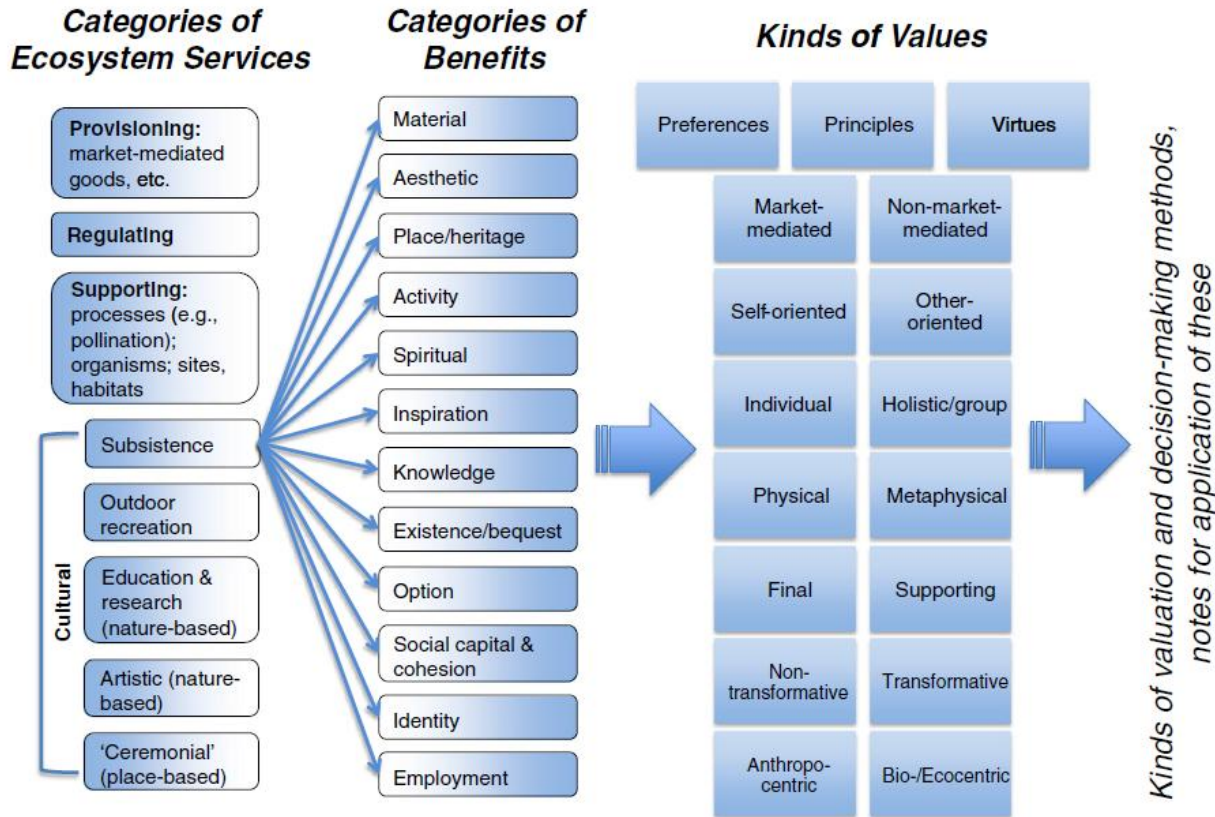


# From ecological economics to plural typologies



# From ecological economics to plural typologies

K.M.A. Chan et al. / Ecological Economics 74 (2012) 8–18



Chan, K.M.A., Satterfield, T., Goldstein, J., 2012. Rethinking ecosystem services to better address and navigate cultural values. *Ecol. Econ.* 74, 8–18. doi:10.1016/j.ecolecon.2011.11.011



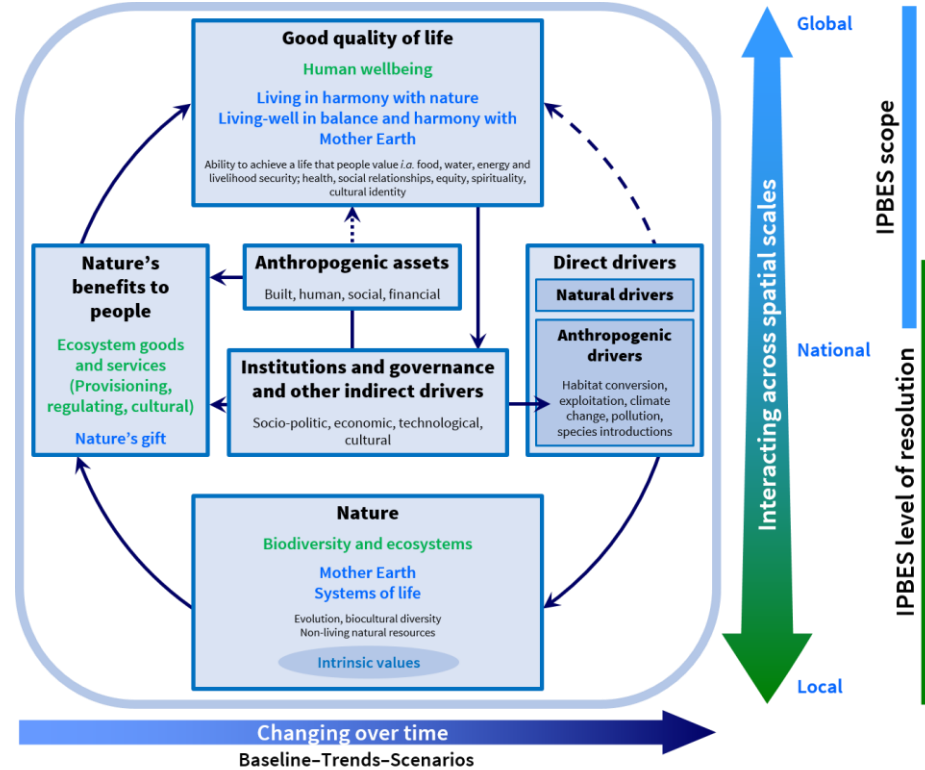
# From ecological economics to plural typologies



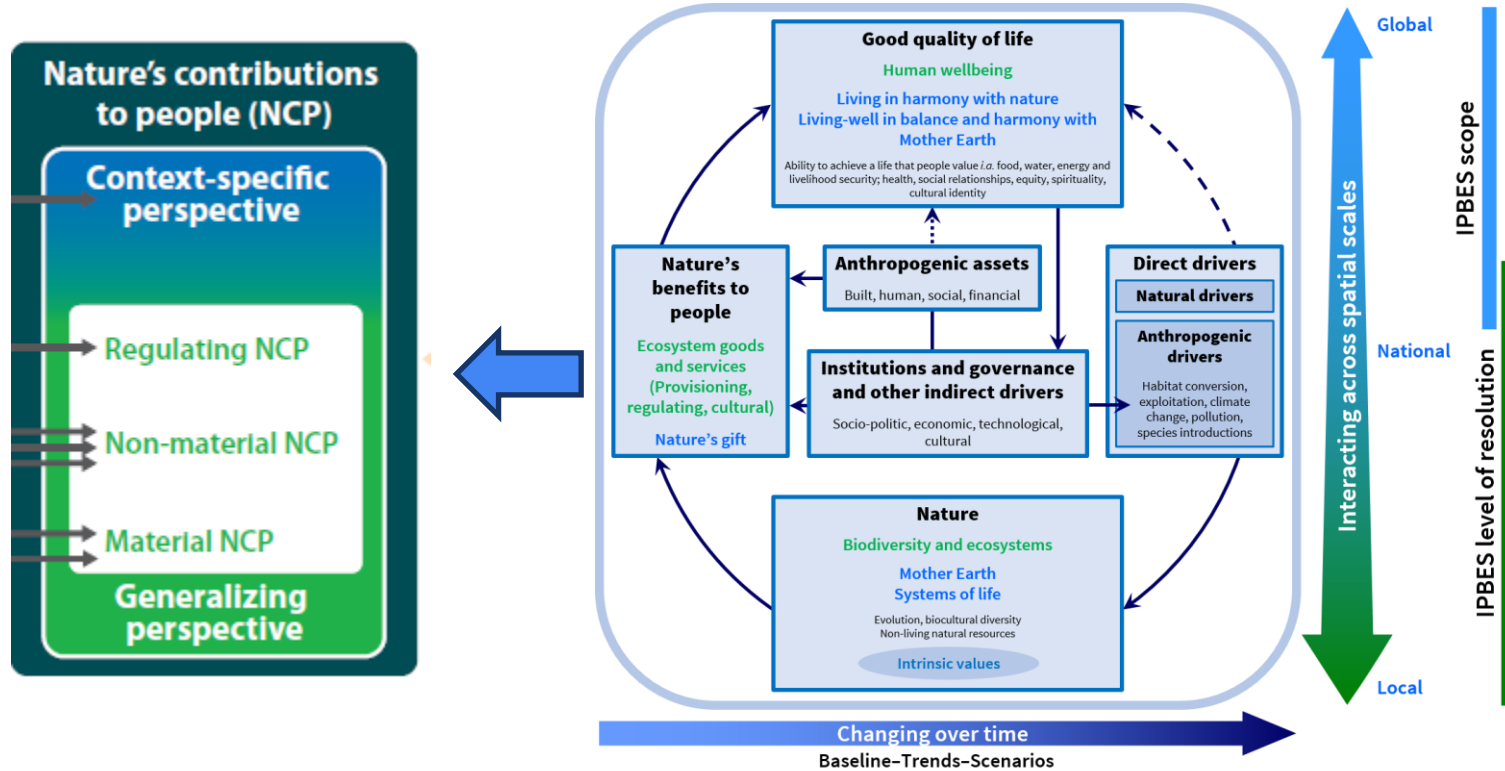
Ecosystem Services



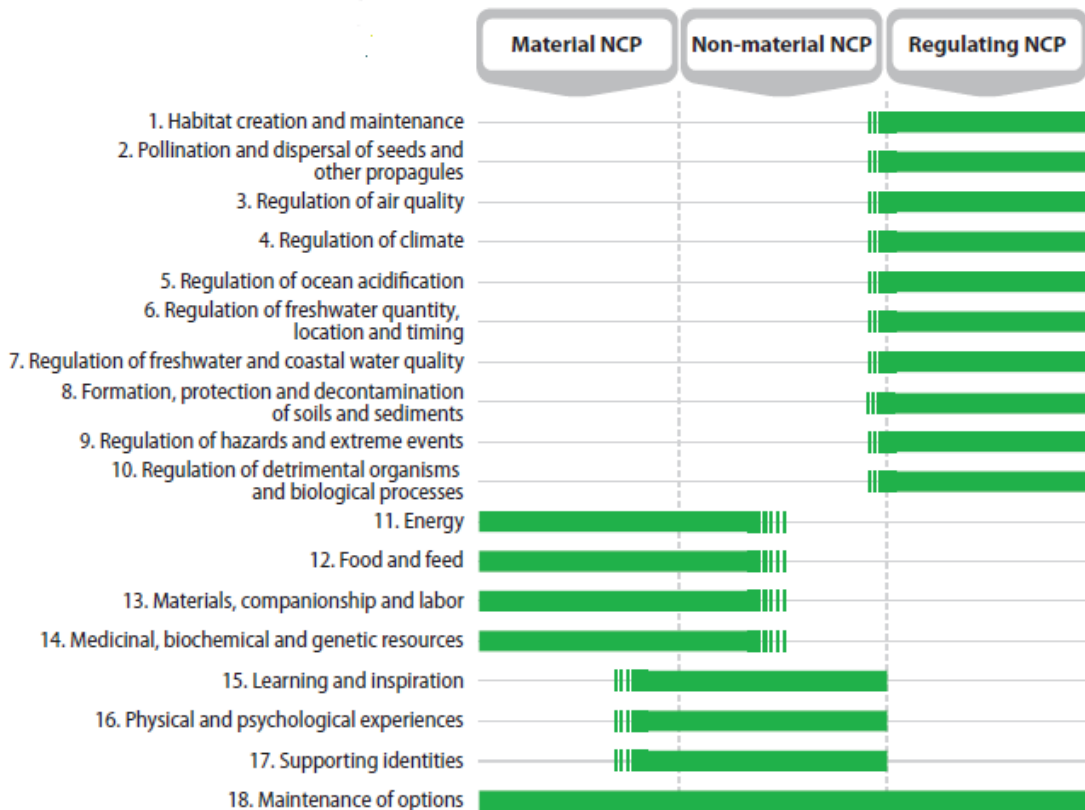
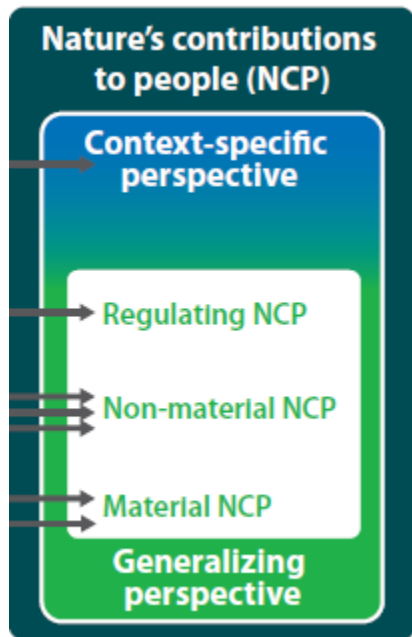
Nature contributions to people (NCP)



# From ecological economics to plural typologies



# From ecological economics to plural typologies



# So what does this mean for small and medium islands?

*“And yet, they do exist! After many years of **nonexistence to the state** due to the very limited number, or even lack of permanent residents, at last the small islands of the Dodecanese recorded a few new permanent residents in the 2021 population census. The “disappearance” of human residents from these islands led to a series of **political debates** between the state and activist movements about whether these parcels of land can be used as spaces for the installation of [...] activities that frame development [...]. **We need to protect these “Galapagos of the Mediterranean” against uncontrolled development**”.*



# So what do they mean for small and medium islands?

Places with a unique geographical identity - insularity

- Boundness [clear spatial limits]
- Smallness [population, land area, GDP]
- Isolation & remoteness [separation from other lands]
- Littorality [land-area interactions]



# So what do they mean for small and medium islands?

Places with a unique geographical identity - insularity

- Boundness
- Smallness
- Isolation & remoteness
- Littorality
- Relationality...?

Unique biological  
attributes

Societal  
appreciation of  
landscapes

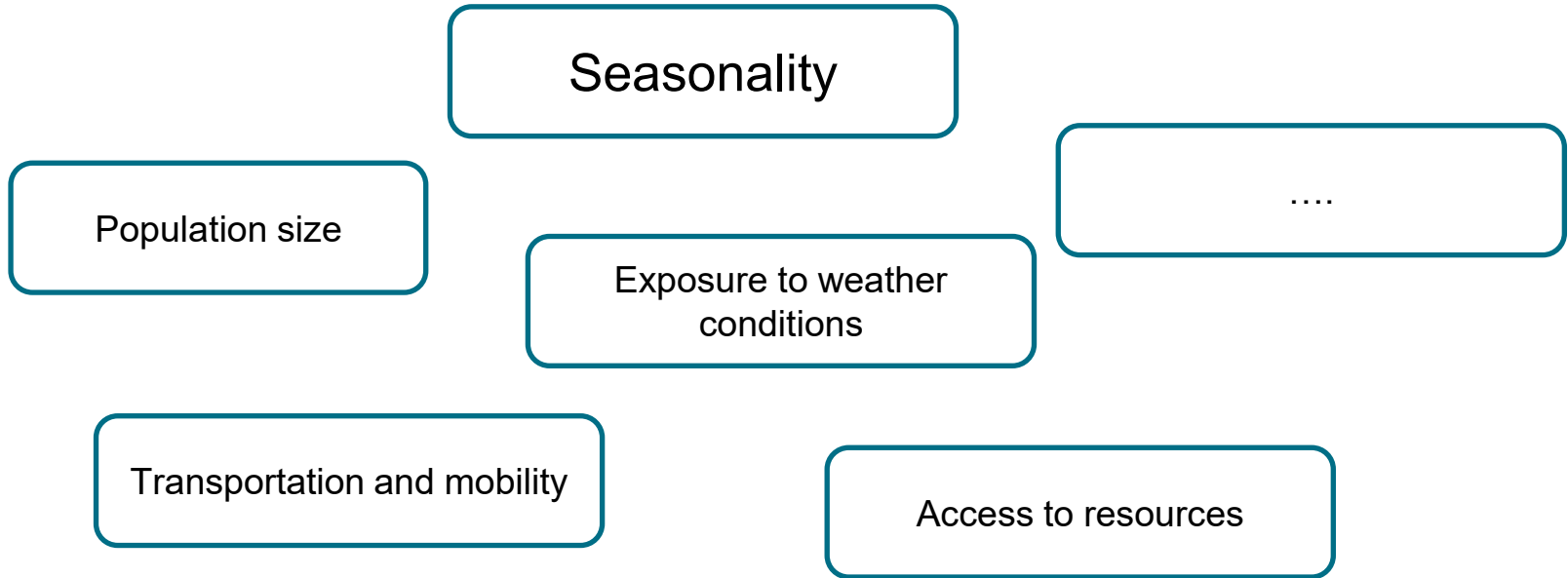


*recognition of a place as an island is culturally and temporally conditioned (Grydehof, 2018)*

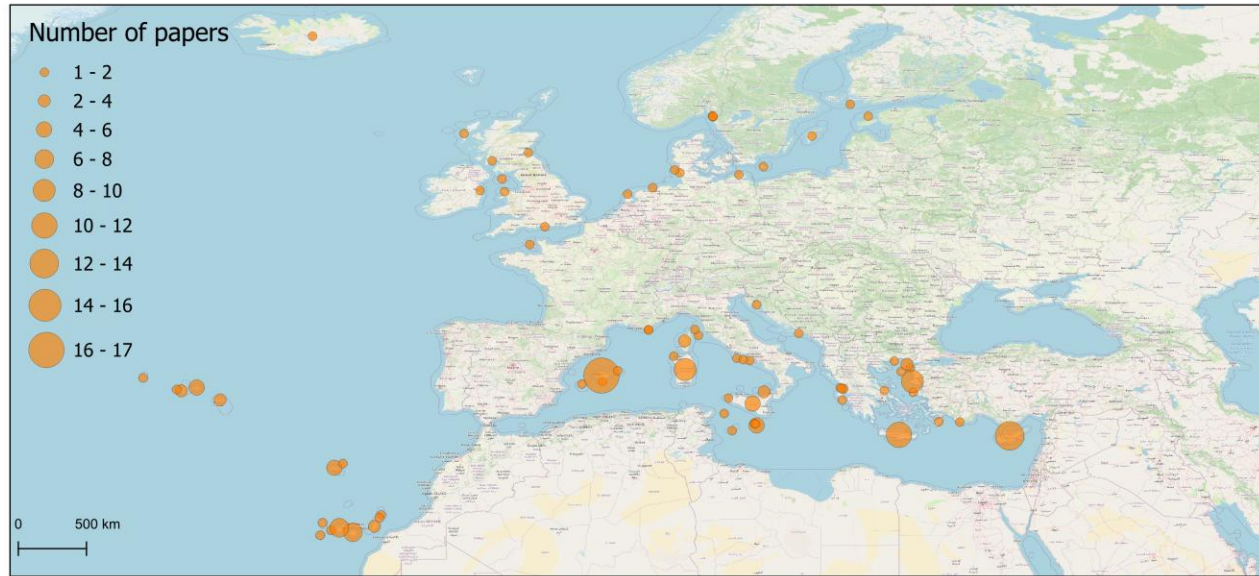


# Human-nature interactions in islandscapes

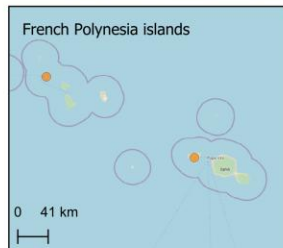
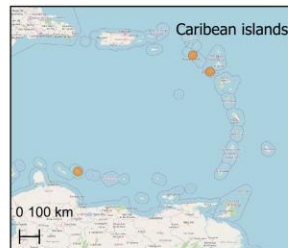
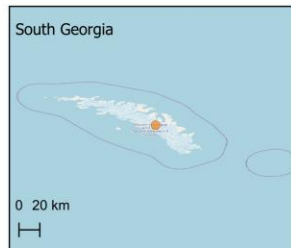
***Variability*** as a core attribute of such interactions



# Island NCP in Europe



**301 publications**



# Island NCP in Europe

## *Conceptual & Ontological challenges*

- A. 56% did not use any conceptual framework (e.g., CICES, IPBES) but developed their own conceptualization
- B. Island-specific NCPs were identified
- C. Plurality of other conceptualizations
  - random utility theory
  - social metabolism framework
  - “diversity-naturalness-uniqueness” framework

*(Tveit, Ode and Fry, 2006)*

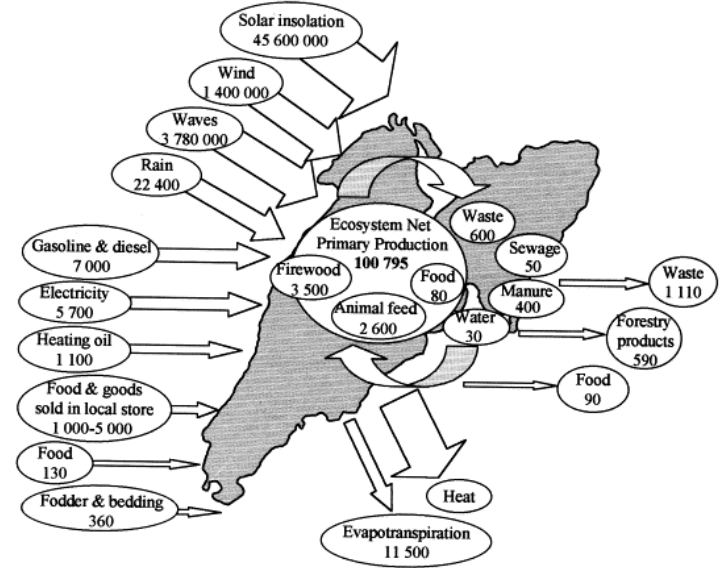


# Island NCP in Europe

## Conceptual & Ontological challenges

### D. Telecouplings

- Islands as sending systems of NCPs to the outside (e.g., tourism and recreation) ~**10%** of the studies
- Islands as receiving systems of NCPs for vital resources ~ **5%** of the studies



Nämndö island, Sweden. *Sundkvist et al 1999.*

# Let's think together

## *Features of islands – 30 min exercise*

- Take 5 minutes to reflect *individually* what are the core features that make islands special for you!
- Form groups of four (4)
- Discuss as a *group* the features you identified and come up with the *top three!*
- *Present them in class!*