



# Soil EcoSystem Services: Economic Issues

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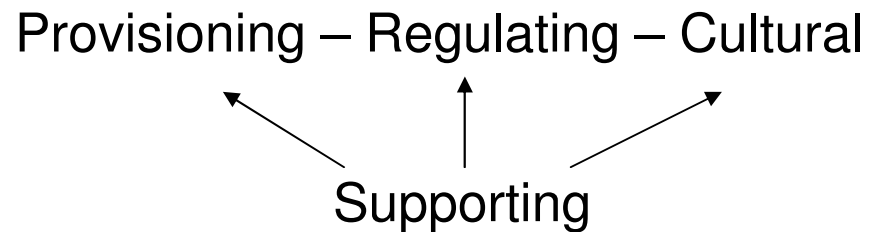


# Soil EcoSystem Services: Economic Issues



Ecosystem services concept describes the interrelationship between human well-being and ecosystems.

Popularised through the Millennium Ecosystem Assessment (MA) 2003



The Economics of Ecosystems and Biodiversity (TEEB) is the follow up on the MA to **demonstrate** value and to inform policy to enabling value **capture**.



# Soil EcoSystem Services: Economic Issues



EcoFINDERS contributes to both aspect of economic analysis  
(i.e. demonstration (A) and capture (B))

A) The economic value of Soil Ecosystem Services

Forms of value

Need for policy intervention?

B) Economic aspects of soil conservation policy design

Would voluntary payment schemes work?



## A) The Economic Value of Soil Ecosystem Services

Soil Biodiversity and Ecosystem Services have economic value if they are scarce resources

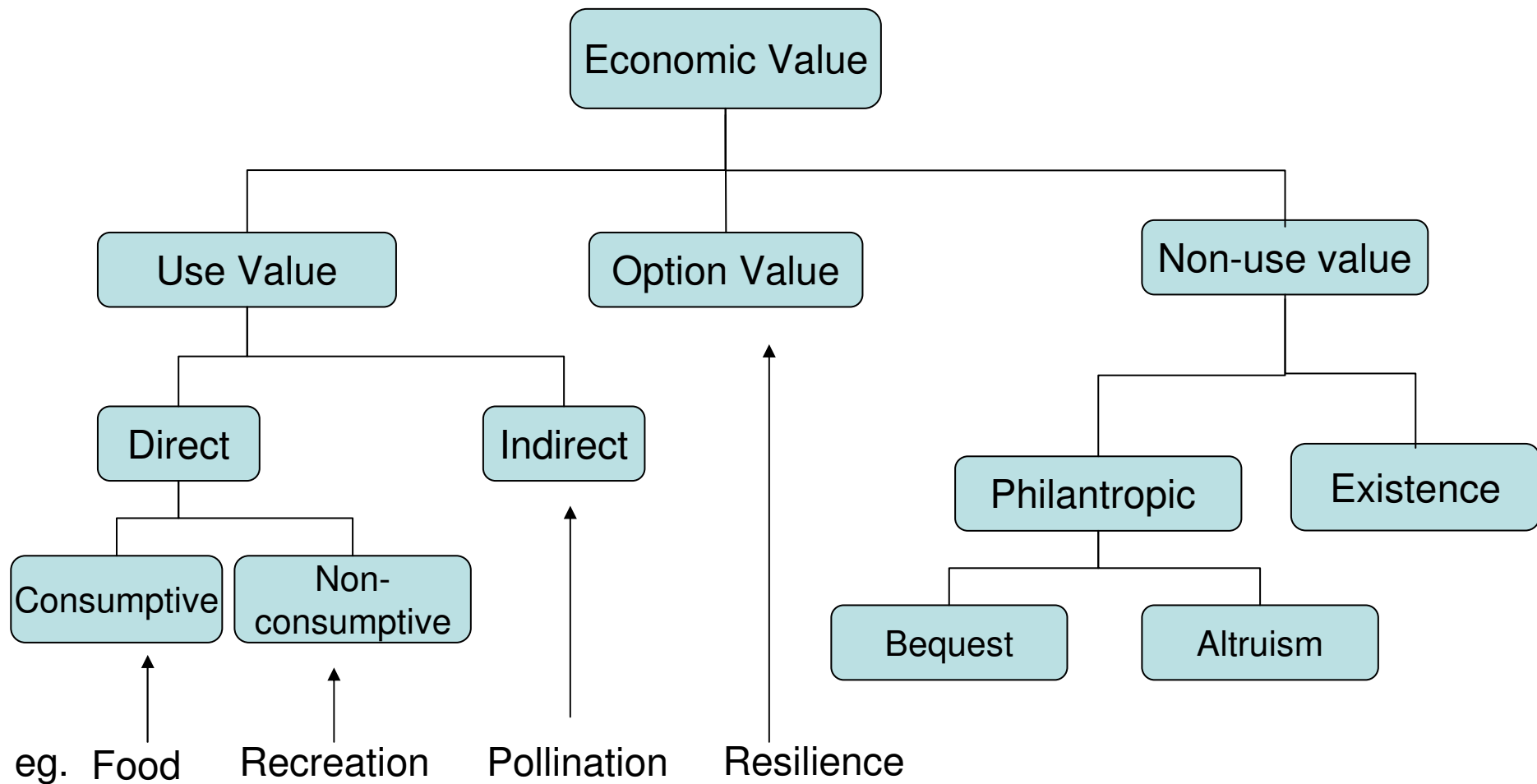
A resource is scarce if a reduction is associated with an opportunity costs.

In order to increase the resource with one additional unit one must give up a certain amount of something else.

Ignoring values of natural resources means that policy choices are misinformed and society less well off



# A) The Economic Value of Soil Ecosystem Services





## A) The Economic Value of Soil Ecosystem Services

<b>MA Classification</b>	<b>Eco. Value Classification</b>
Nutrient cycling (Soil fertility) (supporting)	Indirect use value /option value
Carbon sequestration (regulating)	Non-consumptive use value
Water flow regulation (resilience towards drought)	Indirect use value / option value
Disease control (regulating)	Indirect use value / option value



## A) The Economic Value of Soil Ecosystem Services

Implications of the mismatch between the various typologies

Risk of double counting of values

Choice of Valuation Methodology

Choice of policy instruments



## B) Economic aspects of soil conservation policy design

The approach taken in EcoFINDERS:

Policy experiment with land managers

- i) Description of hypothetical soil conservation schemes as a combination of a collection of conservation measures and regulatory characteristics.
- ii) Choice or Ranking experiments to collect data on land managers responses to alternative conservation schemes
- iii) Development of response model
- iv) Evaluation of alternative designs in terms of adoption and costs





# Soil EcoSystem Services: Economic Issues

EcoFINDERS project:

- A) Improve the economic models for valuing soil ecosystem services and testing the case for intervention
  
- B) Analyse the scope for voluntary conservation policy schemes.