

Markets in biodiversity

Keeping your biodiversity healthy

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Structure

- I. Biodiversity offsets
- II. Zsa Zsa Gabor values: de re and de dicto valuation
- III. Should biodiversity be valued purely Zsa Zsa Gabor manner?

1. Biodiversity banking and offsets

- Landowner – sell credits for creating, restoring or enhancing a site of biodiversity
- Developer – buys credits to offset loss of biodiversity caused by a development
- Result: no net loss of biodiversity
- Comparison: carbon markets and carbon offsets.

Environmental values

- ‘Biodiversity offsets are one important tool for maintaining or enhancing environmental values in situations where development is sought despite detrimental environmental impacts’ (J. Kiesecker et. al. 2009 ‘A Framework for Implementing Biodiversity Offsets’ *Bioscience*)
- Substitutability – maintaining total value.
- What assumptions about the nature of ‘environmental values’ are necessary to justify biodiversity banking?

2. Capital and ecosystem services

- Capital: natural environments, resources and beings should be understood as ‘capital’
- Assets valued in terms of the services and benefits they provide, either
 - directly for the welfare of those who use them or
 - indirectly as inputs into production and as the background conditions for human life and production.

Ecosystem services

'In recent literature, the links between nature and the economy are often described using the **concept of ecosystem services**, or flows of value to human societies as a result of the state and quantity of natural capital.:

- **Provisioning services** – for example wild foods, crops, fresh water and plant-derived medicines;
- **Regulating services** – for example filtration of pollutants by wetlands, climate regulation through carbon storage and water cycling, pollination and protection from disasters;
- **Cultural services** – for example recreation, spiritual and aesthetic values, education;
- **Supporting services** – for example soil formation, photosynthesis and nutrient cycling.'

(TEEB (2010) The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB).

Ecosystem services

- Economic valuation: valuation of ecosystem services.
- Sustainability – maintaining those services
- Biodiversity understood as what underpins ecosystem services
- What assumption is being made in making ecosystem *services* the central object of valuation?

Services

- ‘Almost all of standard economic theory is in reality concerned with services. Material objects are merely the vehicles which carry some of these services, and they are exchanged because of consumer preferences for the services associated with their use or because they can help to add value in the manufacturing process.’ (R.U Ayres,. and A. Kneese. 1969. ‘Production, Consumption, and Externalities’, *The American Economic Review*, (59), 3: p.284)

II. De re vs de dicto valuation

- Assumption: what is valued are services or characteristics. Any object as such is valued simply as a 'vehicle' for these services.
- For what class of objects is this true?
- The de re vs de dicto distinction is a way of approaching that question.

Keeping your husband young and healthy

- **Zsa Zsa:** “Ah! People misunderstand me! They think that I am just a creature of leisure, that I do nothing useful, but they are wrong. I am constantly finding new ways to do good for people.”
- **Interviewer:** “Like what?”
- **Zsa Zsa:** “I have found a way of keeping my husband young and healthy, almost forever.”
- **Interviewer:** “Eternal youth... that is quite a discovery! How do you do it?”
- **Zsa Zsa:** “I get a new one every five years!”

De re vs de dicto value

- De re valuation: what is valued is the particular thing.
- De dicto valuation: what is valued is whatever falls under a description.

III. Biodiversity and de dicto valuation

- Biodiversity offsetting and banking assumes that biodiversity values should be valued merely de dicto.
- We are taken to value whatever provides the ecosystem services or functions that are relevant. The particular site or object is a vehicle for the provision of a service.
- Is this assumption justifiable?

Well-being and environments

- The picture offered by standard economic approaches to environmental goods is to conceive of them as bundles of fungible resources that are valued for the provision of services.
- We can destroy one place as long as substitute another that provides the same services.
- Substitution is merely a technical matter.

Attachments to particulars

- Relationships to particular persons and places are central components of human well-being. This is true of the ordinary and everyday places people inhabit
- Places are valued de re – they are attachments to particulars
- the family home
- the copse where went for a walk
- environments that embody the life of a community
- It is no compensation for people who lose a valued place of biodiversity to be told there is a new one that can be built.