Private finance of marine restoration

Rolf Groeneveld

rolf.groeneveld@wur.nl
Background: MERCES

- Marine ecosystem restoration in EU waters
  - Norway, The Netherlands, Italy, Spain, Azores, ...
- Costs of restoration
- Benefits of restoration
- Private finance of restoration
  - What obstacles?
  - What sources?
Who pays for marine restoration?

- **Traditional view**
  - Restoration is public good, even moral obligation
  - Government supposed to provide public goods

- **Problems with the traditional view**
  - Governments have other priorities, are retreating
  - Locals and NGOs may want more restoration

- **Private finance**
  - Growing attention for *conservation* finance
  - But how about restoration?
Obstacles to private finance

- Conservation finance (CS/WWF/McKinsey 2014):
  - Public-goods nature of benefits
  - Conservation not primarily for profit maximization
  - Scale too small for big investors
  - Socio-political constraints (e.g. access for locals)

- Restoration finance:
  - Bigger investments needed upfront
  - Longer time horizon
  - More uncertainty
Restoration takes time and is uncertain

Source: Bullock et al., 2011. *Trends in Ecology and Evolution*
Investments are needed now
Investments are needed now
Can we be sure about maintenance?
Restoration is a risky investment

- Benefits (ecosystem services) take time to develop
  - Opportunity cost: the money we invest could have been invested elsewhere
  - Benefits might even accrue not to us but future generations

- Effects are uncertain
  - Interventions may fail
  - Benefits difficult to define and measure
  - Effects difficult to attribute to restoration
Who can finance restoration?

- Parties responsible for the damage
- Parties benefiting directly from restoration
- Investors
- Voluntary donations
Payment by ‘perpetrators’

- Liability law
  - Can we identify the perpetrator?
  - To what extent can he/she be made responsible?

- Catastrophe bonds: a form of insurance
  - Firms in risky business buy bonds
  - No disaster -> investment paid back with interest
  - Disaster -> investment used for restoration
  - Note the ceiling to the liability

- Offsets: restore here to compensate damage elsewhere
  - Ad hoc
  - Offset markets
Payments for Ecosystem Services

- ‘Buyers’ of ecosystem service pay ‘provider’ for service provision
  - Buyer can be excluded from use if no payment
  - Provider secures provision

- Limitations in restoration
  - Payment needed long before services are provided
  - Payment only works for specific services
  - Poor excludability of users invites free-riding
Private investors

- Do not benefit from services directly, but can help bridge time gap
- Type of investors:
  - Wealth-preserving
  - Return-oriented investors
- Instruments
  - Direct investment
  - Green bonds
Voluntary donations

- Charities
  - Often individuals or families, e.g. Walton, Gates, Pew, Packard
  - Usually no institutional investors
- Crowdfunding (Gallo-Cajiao, forthcoming):
  - USD 4.8 mln since 2009
  - Median size USD 4000
  - 21% of projects regarded on-ground actions (management, building facilities)
  - 8.8% of projects regarded marine ecosystems
Conclusions

- **Challenges**
  - Public-goods nature of (some) ecosystem services
  - Time gap and uncertainty
  - Trust between parties, not least investors
  - May apply only to limited set of services
- Finance will be at most a mix of public and private
Open research questions

- Difficulty finding respondents
  - Low response rates
  - Have we been looking in the wrong places?
- Crowdfunding
  - Stated preference studies, experiments
  - Scope may be limited
- Institutional investors and donors
  - Action research, learning-by-doing
  - Mismatch donors <-> projects
Thank you

rolf.groeneveld@wur.nl