

Financing NBS

Why we need them, how can they look, who benefits from them and how can they be more effective

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Dr Manolis Tyllianakis
Research Fellow, University of Leeds

Where to start?

Business cases for Nature Based Solutions



Why we need them,



How can they look (+examples),



Who benefits from them
(+examples),



How can they be more effective (+ examples)



Why we need them?

- ▶ Science is great but nowadays researchers, practitioners, members of the public and innovators are increasingly asked to demonstrate economic benefits, impact and returns
- ▶ Not necessarily a bad thing: Money is the common language here
- ▶ Quantifiable benefits: ↑ possibility to secure funding
- ▶ Different types of quantifiable benefits: ↑ possibility to attract multiple funding
- ▶ Transferability: if a funding stream is not accessible, others can be
- ▶ Identifying benefits can help with identifying funders



How can they look?

- ▶ Define status quo: what is going on now, how can the NBS improve it (opportunity cost)? Can you compare it with grey infrastructure (costs are easier to find there)?
- ▶ Who will benefit from it? Members of public, businesses/industry, local/regional government?
- ▶ Define costs and benefits; prioritize immediate from wider benefits
- ▶ What is the time horizon for completion and benefit accumulation?



How can they look?

Example: Managed re-alignment in the Deben estuary, Suffolk

Options:

1. Costs under BAU
2. Costs of personal replanting
3. Costs of dredging
4. Costs of MR

1. Benefits under BAU
2. Benefits of personal replanting
3. Benefits of dredging
4. Benefits of MR





Who benefits from them: NBS examples

1. Urban setting

- ▶ The London Wetland Centre is a 'recreation' of wetlands, created and managed by an NGO



- ## 2. Semi-urban setting: Sustainable Urban Drainage Systems (SUDS)-> different types of vegetation, garden roofs and water gardens that retain water, increase infiltration and mitigate "heat island" effects and noise





Who benefits from them (cont'd)

- ▶ Are benefits local, regional, global?
- ▶ Can you rank benefits based on their plausibility?
- ▶ What type of secondary benefits can you expect (co-benefits) and how certain are you for them occurring?
- ▶ Plan B, C etc if your project comes against issues of: financing, no buy-in from local communities/stakeholders etc)?

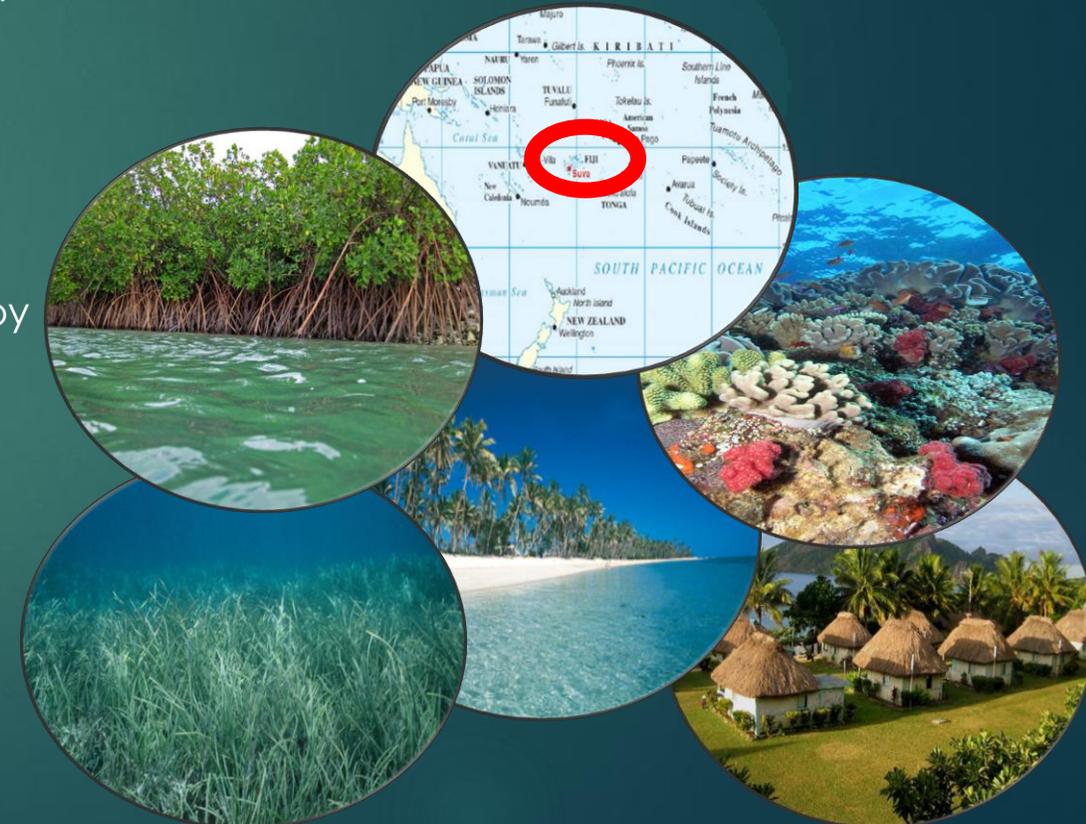
What works, what doesn't

Hidden environmental and economic costs

- ▶ Example: Abingdon reservoir in the Thames river to address low water flow (nutrient rich water=phytoplankton and cyanobacteria growth= reduction to water quality ([Whitehead et al., 2013](#)))
- ▶ Example: Managed Realignment the area of Brancaster in North Norfolk where 7,5 hectares of grazing marsh were transformed into saltmarsh in 2002, the cost increased from the budgeted £249k to £750k due to delays and costs of obtaining consents ([Doody, 2013](#))

Positive spillovers (expected examples)

- ▶ Example: halting deforestation in Colombia by making producing agricultural products other than coca feasible by lowering transportation costs for farmers=building roads (source: [Vox](#))
- ▶ Example: protect coastal and marine areas in Fiji= giving management rights to local communities to introduce customary (vanua) management practices=increase in tourism income ([Tyllianakis et al., 2019](#))





How can they be more effective ?

- ▶ Does the NBS participate in solving ongoing social issues? Will it increase employment, education, positive exposure etc?

Example: Philippines seaweed farming

- ▶ Who will be the primary cost-bearer of the changes suggested by the NBS?

Example: WFD and disproportionality work in Louros watershed in Greece= farmers were the stakeholders bearing the majority of costs implementing NBS to attain GES according to the WFD while all other stakeholders just enjoyed the benefits)

