Developing Policy and Practice for Marine Net Gain

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Review

Developing policy and practice for marine net gain

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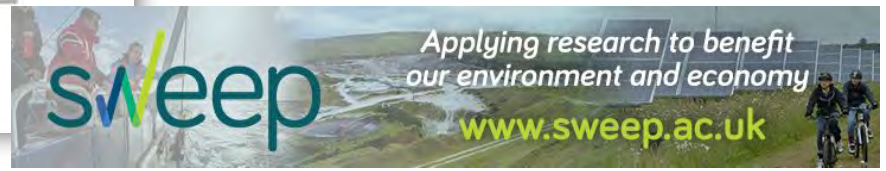


Conclusions

- Net gain needs a systems approach with site-based solutions fitting into a wider socio-ecological structure
- Challenges range from lack of data to existing governance frameworks
- Widespread marine net gain cannot occur independently of fisheries management

General lessons from UK existing practice

The challenge of progression to net gain should not be underestimated

- Mitigation hierarchy not always followed
- Few marine examples of net gain
- Measures tend to be limited to a subset of species/specific protected features
- Little evidence of independent monitoring and evaluation
- Lack of guidance in marine
- Counterfactuals not clearly defined

Defining net gain (on land)

"an approach which aims to leave the natural environment in a measurably better state than beforehand"

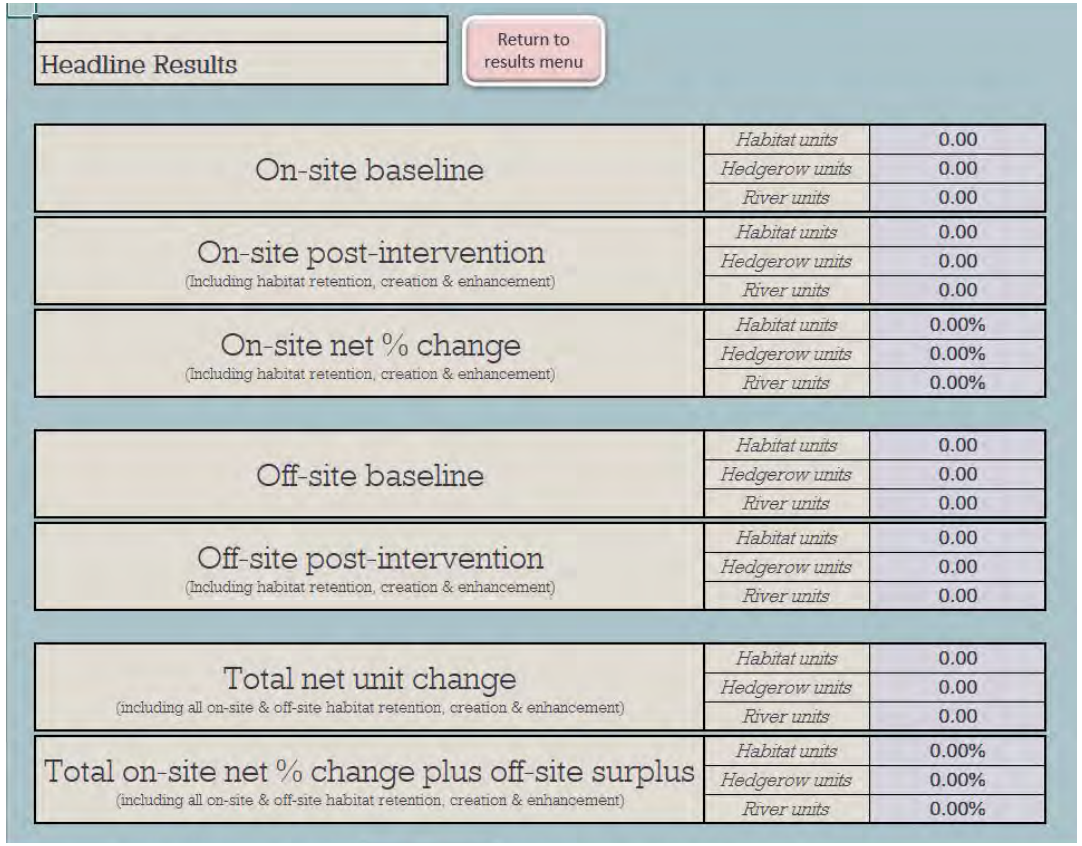
⬇

"an overall increase in habitat area and/or quality following a new development"

⬇

"*The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage*"
[10%]

where "*References to the biodiversity value of any habitat or habitat enhancement are to its value as calculated in accordance with the biodiversity metric.*"



Headline Results

Return to results menu

On-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	0.00%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.00%
	Hedgerow units	0.00%
	River units	0.00%

General issues with equivalence metrics

- Favour practicality over comprehensiveness
- Obscure complexity
- Do not guarantee gains
- But are viewed as being the only option for quantitative comparison of gains and losses that vary in receptor, time and space, but is that true?

And for **mobile species**….?

- Habitats have limited usefulness as a proxy for mobile species
- Alternative proposed species metric untested and only appropriate for direct effects
- Challenge to extract population level impacts of the development from the effects of wider pressures

Testing the metric approach for marine

- **Significant uncertainty** in main metric inputs (habitat **area** and **condition**)
- **Little confidence** in the habitat data from the Environmental Impact Assessment
- **Assumptions** made **about actual impact over background variability** changed the baseline metric score from -20 to 0.
- Assumptions about **distinctiveness** also changed metric score (by a further 25%)

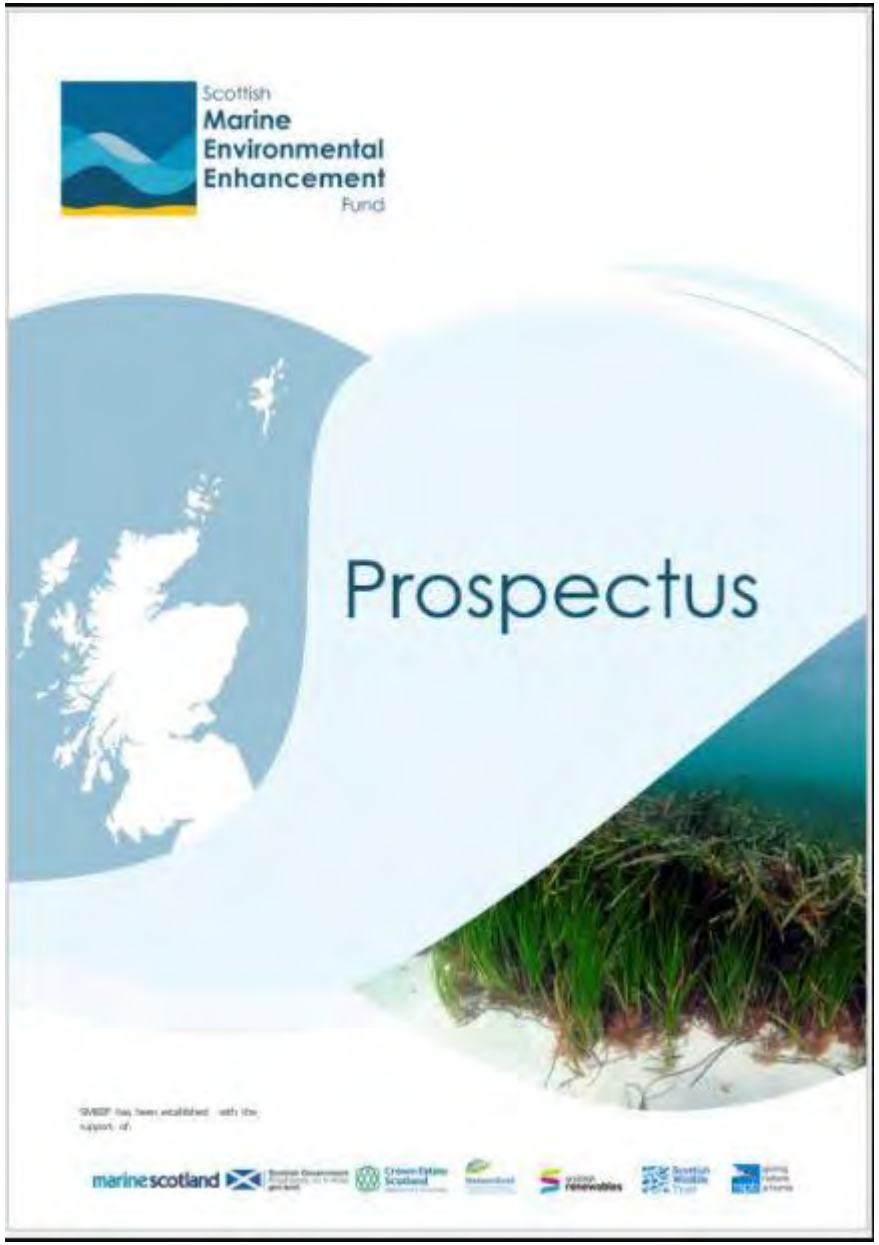
A **habitat metric**, especially in its current form, seems **unworkable….**

- **Increase the burden on developers**
- **Change the approach** (payments-based, nature inclusive design)

Payments-based approaches

- Developer pays a financial contribution in lieu of attempting restoration directly
- Widely used globally
- Less complex than ecological equivalence metrics
- Governance and links to strategic outcomes may be stronger
- Marine developers may prefer off-site options

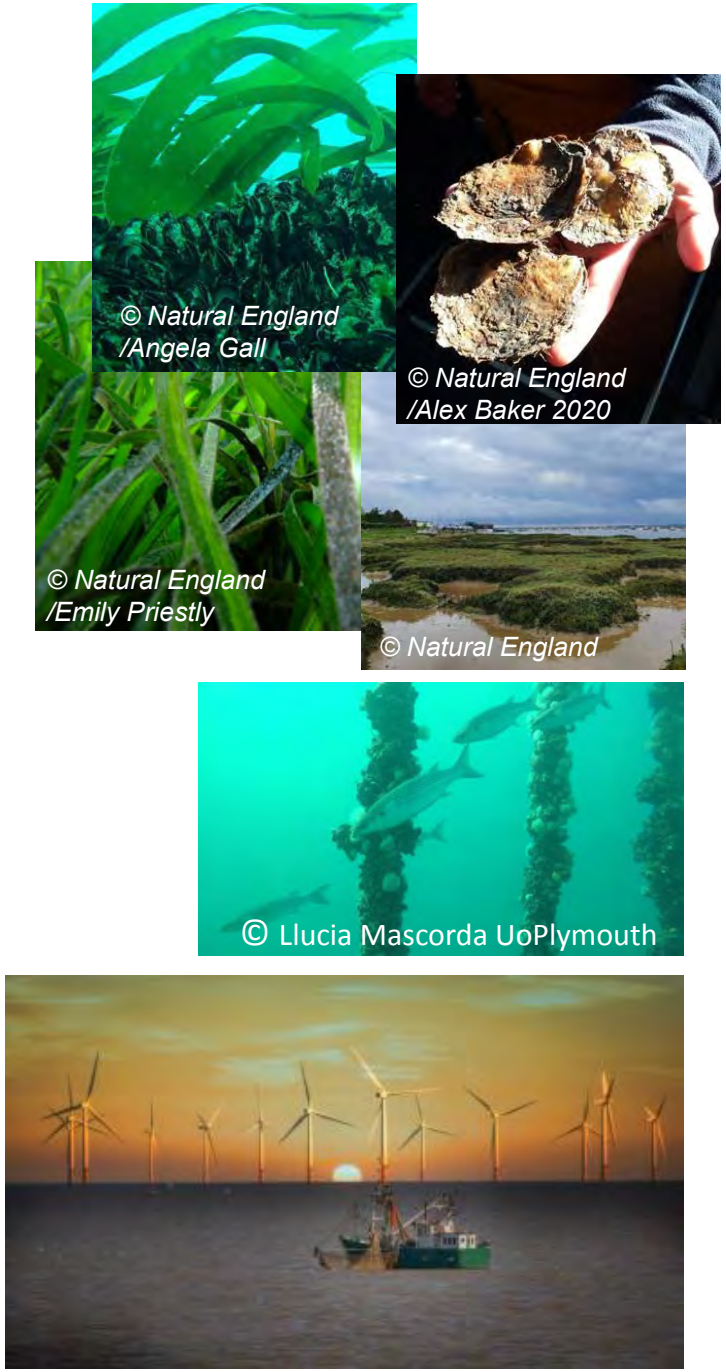
- Examples:
  - UK Aggregates Levy Sustainability Fund
  - Scottish Marine Environmental Enhancement Fund (voluntary)



Achieving the gains

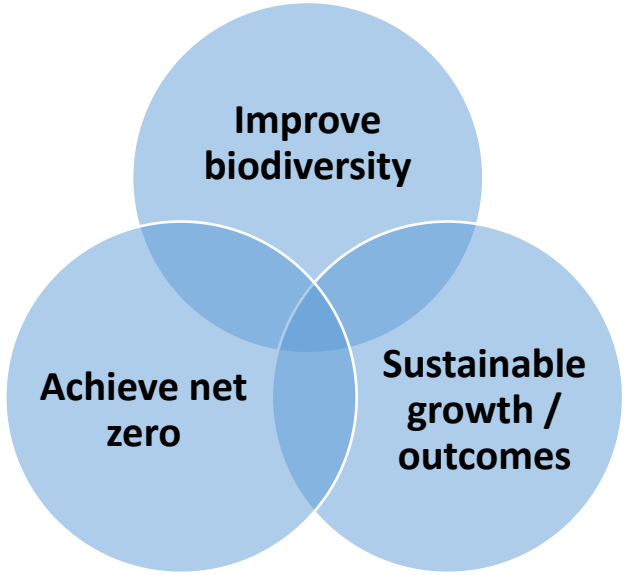
- **Active restoration**: direct action to enhance the population of a particular species or the conditions in which species can thrive.
  - Nature inclusive design
  - Habitat restoration

- **Passive recovery**: removal of the pressures that currently cause environmental damage
  - Exclusion of commercial fishing?
  - Reduction of marine litter



‘Environmental’ vs ‘biodiversity’ net gain

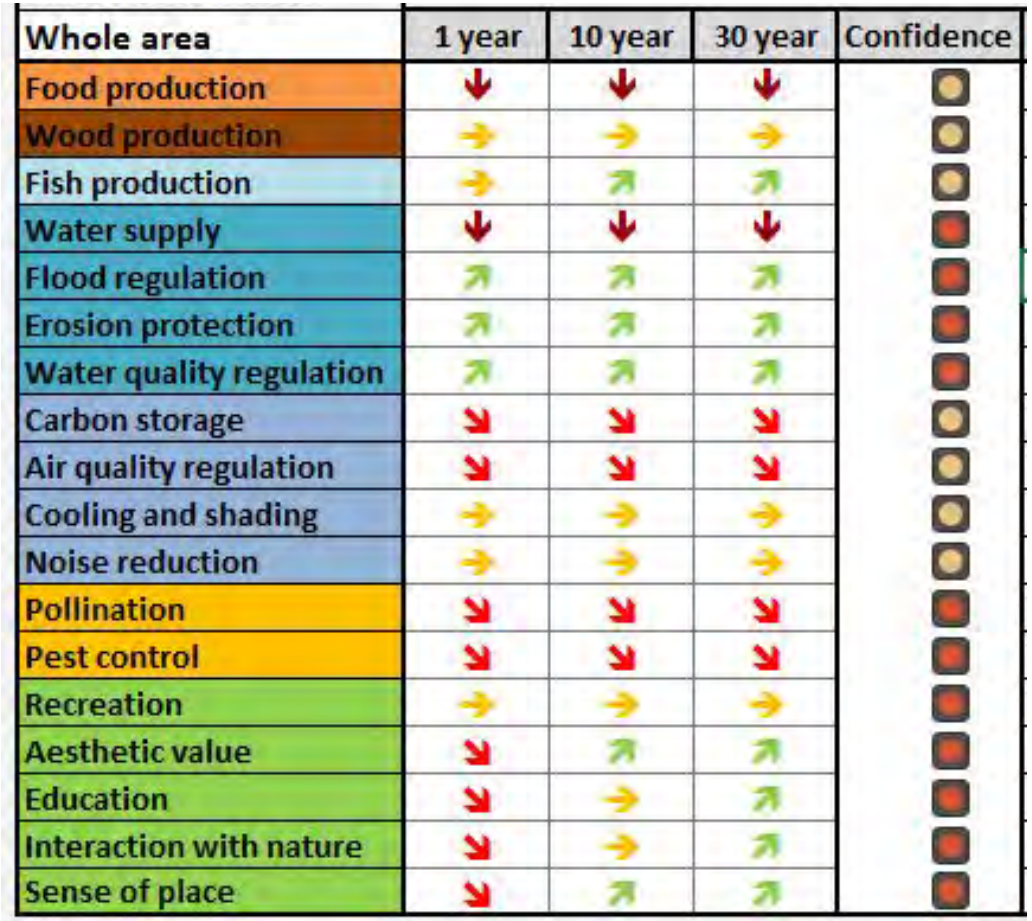
- 25 Year Environment Plan: *“In future, we want to **expand the net gain approaches** used for biodiversity **to include wider natural capital benefits**, such as flood protection, recreation and improved water and air quality.”*



- Draft marine plans included the expectation for “***environmental net gain for marine or coastal natural capital assets and services***”

‘Environmental’ vs ‘biodiversity’ net gain

- Net gain based on site-specific biodiversity alone will deliver fewer ecological benefits than a wider, integrated approach
- Framework that includes social and ecosystem service implications provides opportunity to increase benefits and create social equity
- Support a forward looking perspective that considers growing demand and climate change
- Potentially even more challenging if taken down a metric route: Environmental Benefits from Nature tool
- Must not lose sight of biodiversity priorities

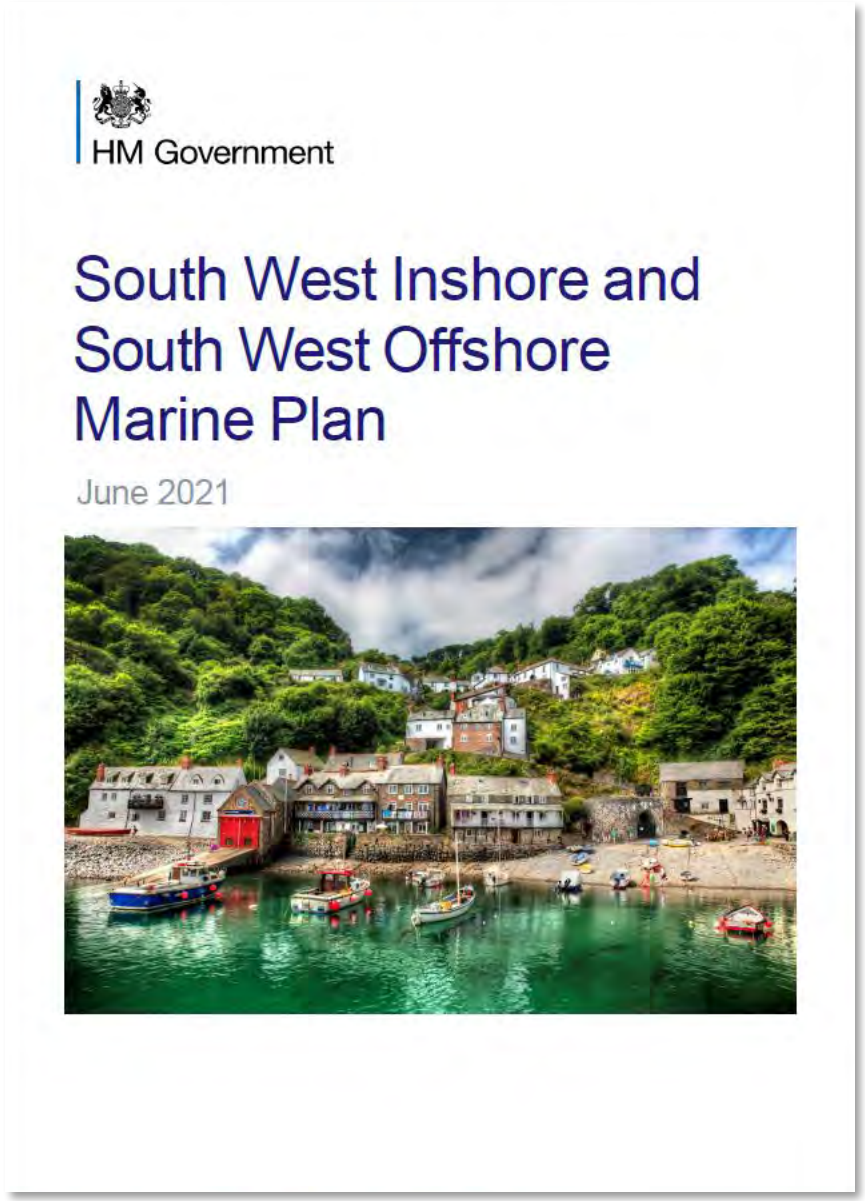


Whole area	1 year	10 year	30 year	Confidence
Food production	↓	↓	↓	
Wood production	→	→	→	
Fish production	→	↗	↗	
Water supply	↓	↓	↓	
Flood regulation	↗	↗	↗	
Erosion protection	↗	↗	↗	
Water quality regulation	↗	↗	↗	
Carbon storage	↘	↘	↘	
Air quality regulation	↘	↘	↘	
Cooling and shading	→	→	→	
Noise reduction	→	→	→	
Pollination	↘	↘	↘	
Pest control	↘	↘	↘	
Recreation	→	→	→	
Aesthetic value	↘	↗	↗	
Education	↘	→	↗	
Interaction with nature	↘	→	↗	
Sense of place	↘	↗	↗	

Strategic approaches

- **Isolated site-based approaches**: impact, and cost-effectiveness is likely to be **limited**

- **Need improved connection between** larger-scale, **strategic assessments** (Strategic Environmental Assessment and regional marine planning) **and licensing** of individual developments if net gain policies are to be effective.
- **Broad, flexible net gain systems** that can accommodate marine and terrestrial activities likely to be **more effective in mediating complex impacts**



Conclusions

- A metric will not be straightforward to implement
- Need payments-based and/or nature inclusive design options instead
- Monitoring and evaluation essential
- **Net gain needs a systems approach with site-based solutions fitting into a wider socio-ecological structure**
- **Challenges range from lack of data to existing governance frameworks**
- **Widespread marine net gain cannot occur independently of fisheries management**
- Needs co-design and co-production