

The background of the slide features a detailed black and white line drawing of marine life. On the left, there are several stalks of seaweed with long, narrow, wavy blades. On the right, there are large, textured oysters or scallops with concentric growth lines on their shells. The central text is contained within a white rounded rectangle.

How can shellfish farms be rewarded for improving the marine environment?

Introducing the Regenerative Aquaculture Forum

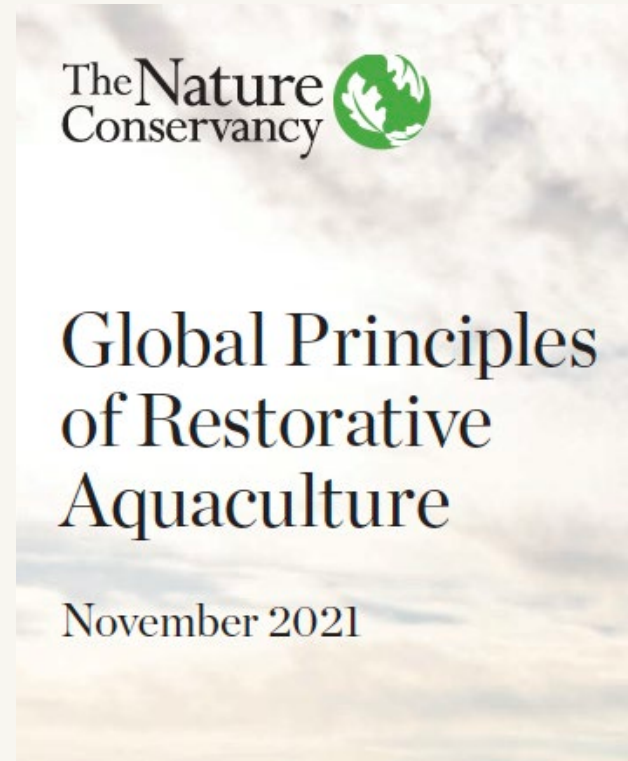
Defining the opportunity



Commercial low trophic aquaculture production:

- Delivers highly nutritious healthy food (and other commercial products)
- Low greenhouse gas emissions
- Provides ecosystem service benefits, such as biodiversity enhancement and nutrient remediation.

Despite exemplary environmental credentials – no formal mechanisms in place to recognise the value nor to reward and financially recompense their delivery.



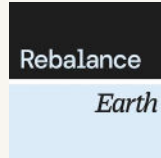
Restorative aquaculture occurs when commercial or subsistence aquaculture provides direct ecological benefits to the environment, with the potential to generate net positive environmental outcomes.

Regenerative Aquaculture Forum

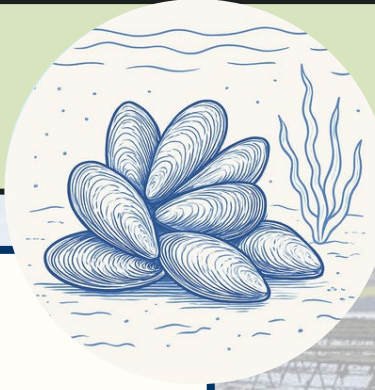


RAF brings together government, regulators, industry, NGOs, nature finance, academics, Crown Estate, landowners and water companies to

- Address this gap
- Develop mechanisms for valuing aquaculture alongside other Nature Based Solutions.
- Raise awareness



Which lane are we swimming in?



Business of Growing

- Water quality
- Access to space
- Streamlined licensing
- Regulation

- **Alternative finance & revenue streams**
- **Rewarding nature positive benefits**

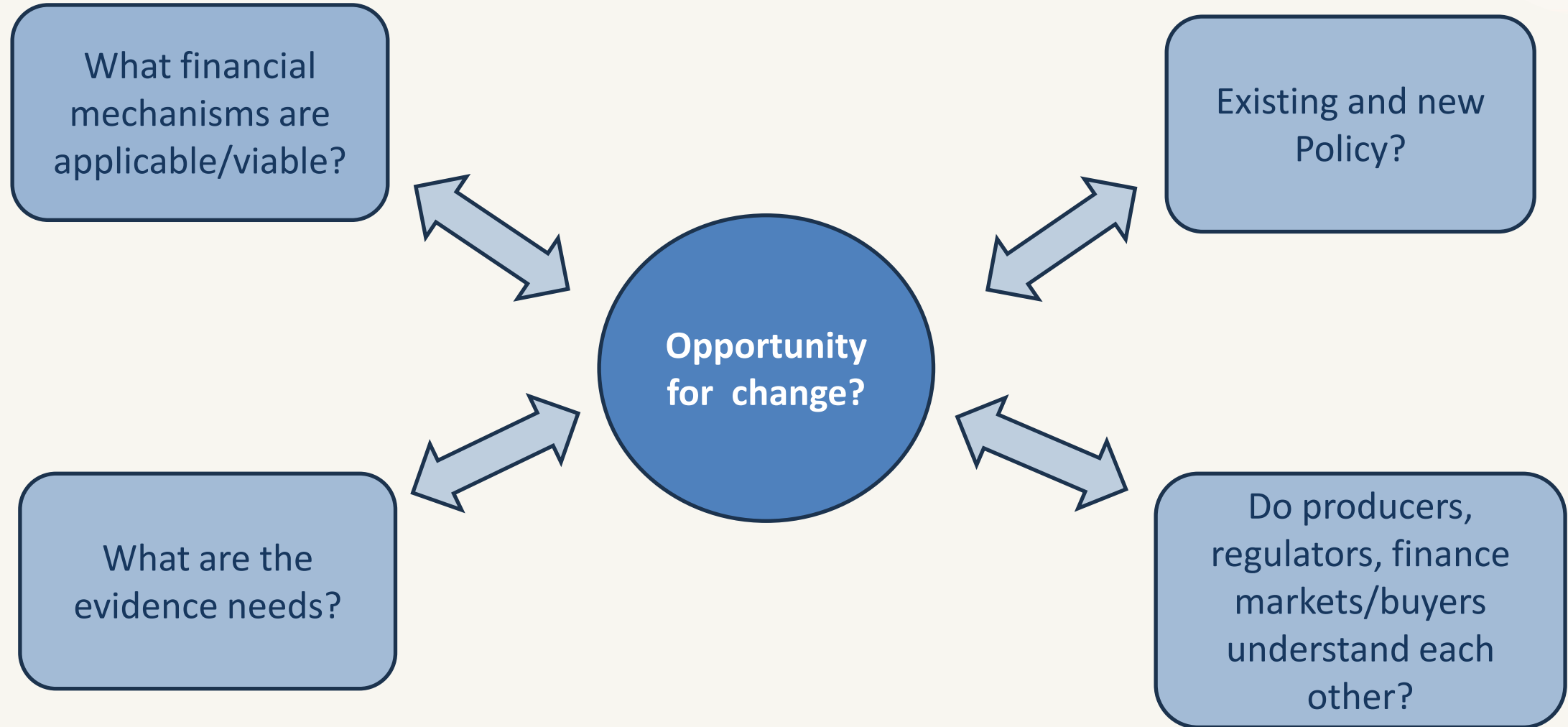
Business of Selling

- Commercial viability
- Markets
- Innovation

Social licence, communication, public perception

Supportive and enabling policy

What are the levers for change?



RAF Workplan: Overview



Finance

Build a comprehensive picture of available funding and incentives, and identify opportunities for RAF supported pilots

01

Policy

Mapping UK government policy agenda to determine opportunities for regenerative aquaculture and where/how RAF can intervene.

02

Nutrients

Leveraging the existing to structure solutions and deliver potential pilot opportunities

03

Evidence

Understanding evidence requirements & delivering simple & cost-effective ways to measure impact & provide assurance/credibility.

04

Influencing

How to use the positive regenerative aquaculture story to successfully position & deliver on RAF agenda.

05

Finance – where does value lie?



Ecosystem benefits



Finance mechanisms?



Buyer (funder*)?

Low carbon,
food and raw
materials



Product sales
Equity investment?



Consumers
Supply chain
Gov't/philanthropy*

Nutrient mitigation



Natural capital markets



Developers (compliance)

Biodiversity uplift



Grants*
Concessionary capital*
Equity investment
Debt



Gov'/philanthropy*
Water companies
Other corporates (nature
positive targets)

*Pre-commercial

Finance opportunities and challenges



- Marine natural capital markets are still emerging, compared to eg BNG, carbon credits
- Establishing formal markets takes time
- Aquaculture recognition as a credible investable nature-positive activity
- Positioning relative to marine restoration initiatives
- Potential for earlier direct investment?

Policy – general challenges



- How do we move expansion of regenerative aquaculture from being considered marine development with impact to being part of the solution?
- Complex landscape – wide range of relevant legislation and policies, much is devolved
- Terrestrial policy is ahead of marine – compare with agri-sector and catchment schemes
- Can we take advantage of policy initiatives that already exist?
- Can we influence emerging policy?

Planning & Infrastructure Act 2026



What is it?

- UK Government priorities includes commitment to build 1.5 million homes in England and to fast-track planning decisions for large scale infrastructure projects.
- New Act key lever to deliver on this agenda but it also has the potential to create opportunities for regenerative aquaculture.

Why is it relevant?

- Legislation gives Natural England new duties to prepare Environmental Delivery Plans (EDPs) and to operate a Nature Restoration Fund (NRF).
- Purpose is to streamline the planning system by providing clearer/efficient route for developers to meet their environmental obligations.
- Instead of bespoke assessments for each project, developers can now choose to pay a levy into the NRF.
- Natural England will use NRF funds to fund conservation measures to address the impact that development has on a protected site.

Nutrient Neutrality



What is it?

- Nutrient neutrality: not about reducing existing nutrient pollution limiting future increase
- **England:** Planning requirement that new housing developments do not increase nutrient levels (N or K) in protected water habitats. Applies to 74 local planning authorities for 31 sites spanning 27 river catchments
- Building projects and plans must not cause additional pollution, referred to as 'nutrient neutrality'.
- **Wales:** Same approach broadly covering three geographical areas. But...Developers commission mitigation measures and approved by LAs. Aquaculture not considered an option....yet!.
- **Scotland:** Focus on nutrient management but currently no development moratorium.

Why is it relevant?

- Mitigation measures remove excess nutrients amount, either on site or within catchment.
- Mitigation measures are funded either by credits or directly by the developer.
- No marine measures. Low- trophic aquaculture not yet accepted.

Biodiversity loss & National Security



- Strategic assessment exploring how global biodiversity loss and the collapse of critical ecosystems could affect the UK's resilience, security and prosperity.
- How environmental degradation disrupts food, water, health and supply chains, and can trigger wider geopolitical instability.
- Focus on biodiversity decline in other regions – charting impact on UK.



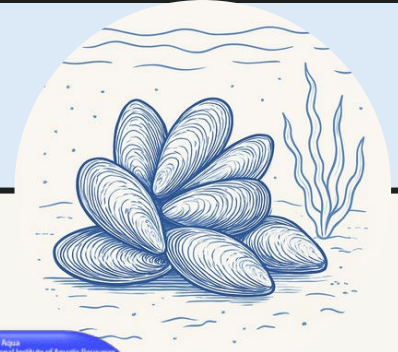
HM Government

Global biodiversity loss, ecosystem collapse and national security

A national security assessment



Aquaculture for nutrient mitigation

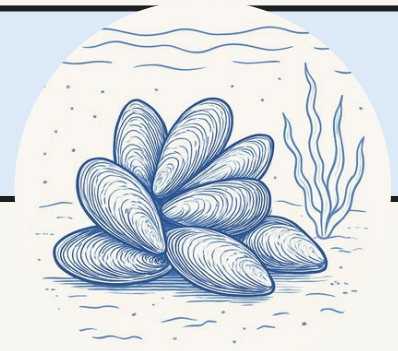


- Scientific evidence base for nitrogen mitigation
- Policy examples established elsewhere (eg USA and Denmark)
- Compliance and voluntary catchment nutrient markets already exist
- Nutrients are focus of Planning & Infrastructure Act & Nutrient Neutrality



BSI Flex 704 v2.0:2026-03

Nutrient neutrality



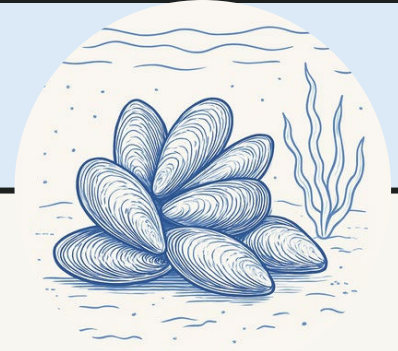
Development in nitrogen sensitive catchments must be mitigated by an approved method, using standard calculations

1 house

2.4 occupants = 3.4 kg N yr⁻¹

(Net nitrogen varies with efficiency of WWTW)

Whole catchment mitigation



Fitting into a mosaic approach

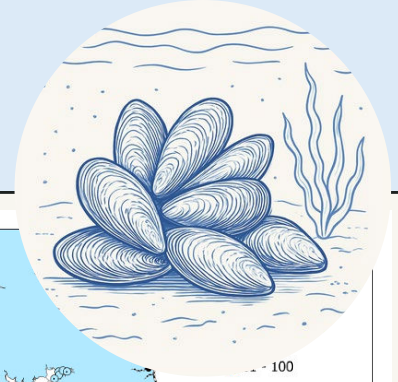
- WWTW upgrades
- Land management schemes
- Nature based solutions – upstream and marine
- Nutrient neutrality/financial incentives/markets

Nutrient reduction may also be needed upstream – some modelling may be helpful.

Key issue is to have regenerative aquaculture accepted as a mitigation measure for nutrients – that's our challenge!

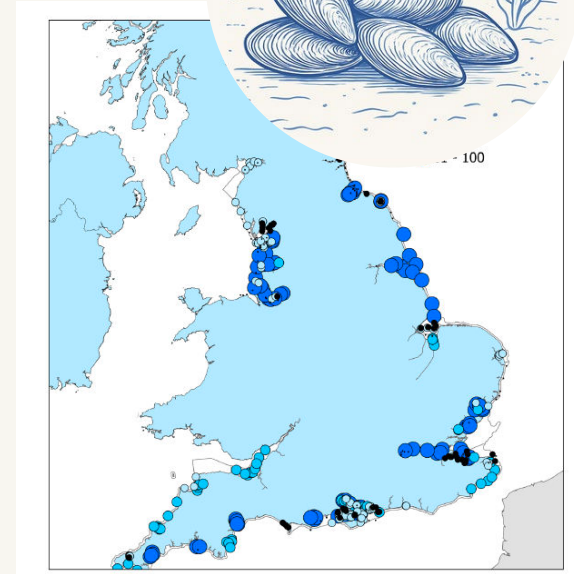


Where is most appropriate?



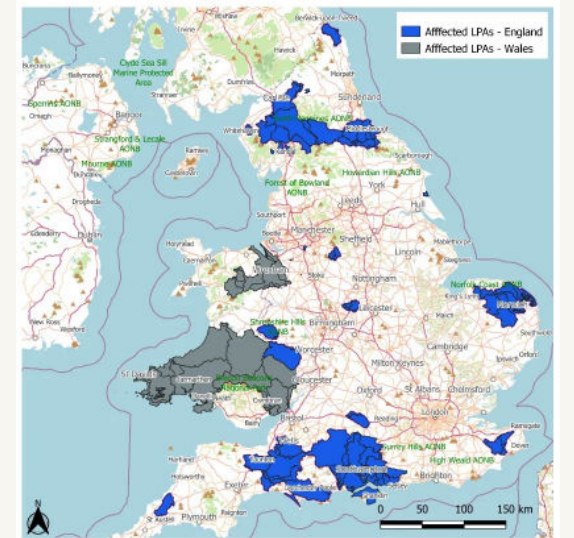
Focus on areas that align with government policy priorities

- Identified as a eutrophication problem area?
- Failing to meet Good Ecological Status or Good Environmental Status?
- Are designated conservation features impacted?
- Nutrient neutrality in operation?



Suitability of these areas for regenerative aquaculture?

- Existing licensed aquaculture sites?
- Room for expansion?
- Is there a sound business case?



Partnership building

- Are all relevant stakeholders motivated to engage?

Questions, gaps and challenges



Acceptance as a mitigation measure

- Attribution, Additionality
- Permanence, business credibility, and lease duration
- Governance

Location

- Upstream/downstream – does fine scale location matter?

Business case

- Access to space, licensing
- Technical feasibility/site suitability
- Commercial viability
- Investment & financial incentives

RAF Pilot Projects



Focus of pilots

- Demonstrating progress on the ground
- Building awareness and interest issue across government/sector and public.
- Providing evidence
- Widely applicable outcomes on finance models, evidence and governance

Alternative mussel uses

Opportunity:

Using green finance investment to scale up future production of new products.

1

Nutrient Remediation

Opportunity:

Productive regenerative aquaculture as a credible 'conservation measure.

2



3



Regenerative Aquaculture Forum contacts

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