



# Suffolk Marine Pioneer: Policy Brief

## Applying the natural capital approach in England



# Introduction

---

This document summarises key lessons in applying a natural capital approach from the Suffolk Marine Pioneer Project. It is intended for professionals considering applying a natural capital approach to plans, policy or decision making. The natural capital approach has the potential to improve the state of the environment by changing how decisions makers consider natural resources.

There is a pressing need to raise environmental awareness amongst decision makers as demand for natural resources increases. The modern world has been built by processing and harvesting natural products, but rarely does what's been extracted get returned. This reduces the ability of the environment to provide that same level of resource in the future. The current attitude to the environment is the equivalent of driving 100 miles in one direction then only putting enough fuel in to drive 60 miles back. Very quickly we arrive at a place we don't want to be!

Natural resources can be self-sustaining and support a modern lifestyle. However, just like our car analogy if we are to be sure of success, we need to keep track of what resources remain and how far they can stretch. This is what the natural capital approach sets out to do: account for natural environments, habitats and species and highlight the value in terms everyone can understand.

It's thought that by holding a register of environments and accounting for the benefits provided by them, decision makers will have the tools necessary to recognise the critical, yet often complex relationships between mankind and nature and will therefore be empowered to make better decisions that yield benefit for both people and the environment.

The Natural Capital approach has been proposed as a means to deliver the [Government's Green Future: 25 Year Environment Plan to improve the environment](#) with the pioneer programme tasked with testing how this could work.



Department  
for Environment  
Food & Rural Affairs



The Suffolk Marine Pioneer tested local application of the natural capital approach by exploring it in the context of estuarine salt marsh in Suffolk, UK. Suffolk completed the [Manchester](#), [Cumbria](#) and [North Devon](#) Pioneers, established by Defra to examine natural capital applications locally. The outputs of the projects were to inform the implementation and iteration of the Government's 25 Year Environment Plan, that set a truly ambitious goal to improve the state of the natural environment within a generation.

The Suffolk Marine Pioneer was unique in that the project developed around established partnerships, familiar with working in innovative and collaborative ways to address challenges faced by communities adapting and managing dynamic environments.

Estuarine salt marsh provided the focus of the Suffolk Marine Pioneer's endeavours. Salt marsh is well-studied coastal habitat with relatively good data coverage but also an environment that acted as a conduit to unite coastal communities because it defined sense of place for estuary communities.

Making the correct management decisions to balance human need and the natural world has always been a challenge. This is because habitats are part of

complex systems that make it difficult to differentiate environmental responsibility between groups or organisations. Because of this, environmental upkeep has historically fallen to the public sector.

The natural capital approach offers a route to better environmental management because it provides the ability to recognise specific groups' interactions with the environment such that the impact of those interactions for social, economic and environment benefit can be accounted for by decision makers: the result being that better decisions are made.

It does this, in theory, by framing the environment in terms that are already well understood by decision makers. Specifically, into a single currency unit - likely monetary, that can be compared and evaluated against any other interest.

Making sense of the natural world through valuations isn't easy and has many potential pitfalls. This is why the Suffolk Marine Pioneer set out to test if and how the natural capital approach could be applied to meet the Suffolk community vision for rejuvenating estuarine salt marsh to match historic levels.



# Taking a Natural Capital Approach

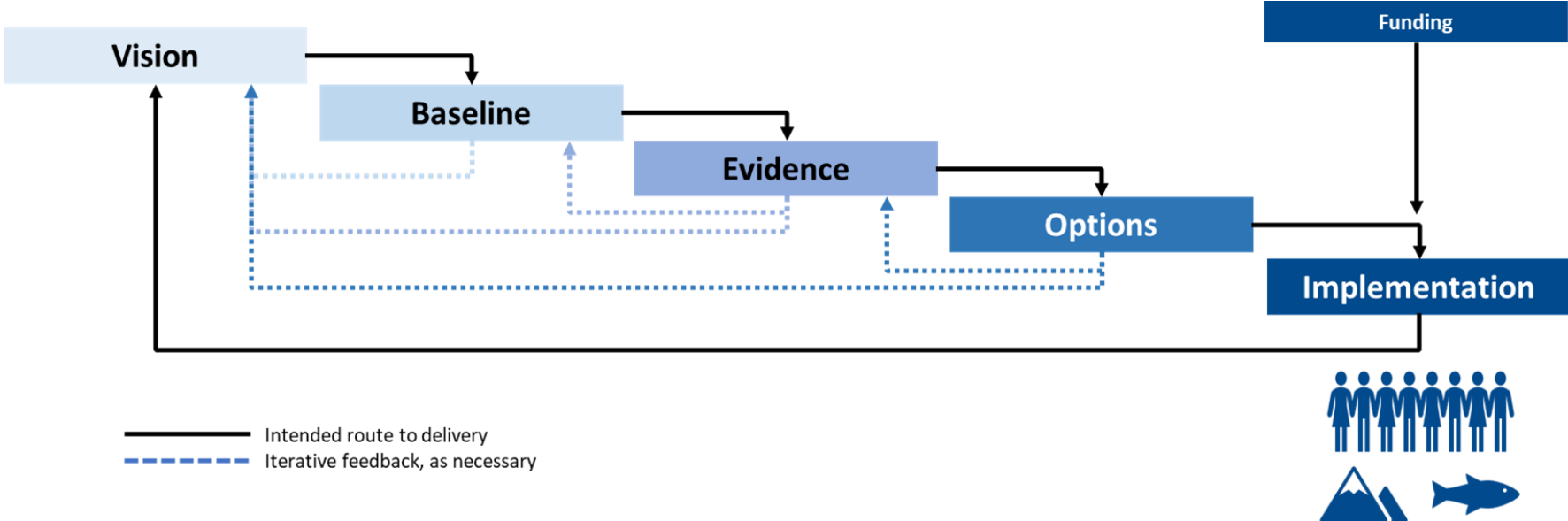
The natural capital approach is a process, intended to deliver benefit for both people and the environment. Only when that process is applied successfully will it start to influence better decision making and so deliver environmental improvements.

A schematic of the natural capital approach is shown below. A vision for a preferable state of a given environment provides the starting point for the process. This vision can be reached by implementing the natural capital plan that results from a systematic approach to the process.

First, a baseline identifies the current state, relative to the vision. An understanding of what action is necessary to bridge the gap between the baseline and the vision is then built through constructing an evidence base. The evidence base is critical as this identifies opportunity to enhance the environment in question. The most suitable opportunities are considered through an options process, with the preferred option(s) taken forward to be implemented through the plan.

As with all plans, a natural capital plan requires sufficient funding to be delivered. The opportunity to obtain funding through the natural capital approach is potentially greater than that available to traditional approaches. This is because natural capital identifies the value of the environment for organisational activity which may unlock new sources of funding for delivery. New sources of funding would be willing to support projects that can demonstrably support their activity. Justification for this would be found in the natural capital evidence base.

The specifics of each stage of the natural capital approach will likely be informed by the people, partners and priorities at each location. A common recommendation however is the need to actively involve stakeholders early on in the process, as successful place-based decision making must deliver genuine benefits for the people living and working in the area. Identifying what this means in practice, can only come from those familiar with the environment.



# Evidencing Natural Capital

Developing a natural capital evidence base is no small task. There are many inter-dependent components of evidence that contribute to informing valuations of natural capital. An understanding of the physical asset, its condition; the ecosystem services provided and how they manifest as benefits to a human population are just some. In many cases, data deficiencies will hinder progress to developing a comprehensive evidence base. The Suffolk Marine Pioneer sought to overcome knowledge gaps for progressing a natural capital approach for saltmarsh. Specifically, the condition of Deben estuary saltmarsh and its ability to support fisheries and provide coastal protection were quantified by processing publicly available data.

The University of Essex were able to develop a simple methodology based upon physical attributes of a saltmarsh to determine condition. This unlocked the ability to quantify ecosystem services that correlated with condition, including carbon sequestration and provision of seafood. This methodology requires relatively basic processing skills so could readily be applied nationally, A selection of results has been processed, below.

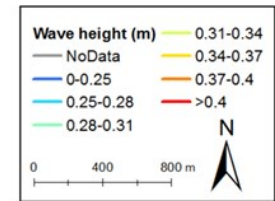
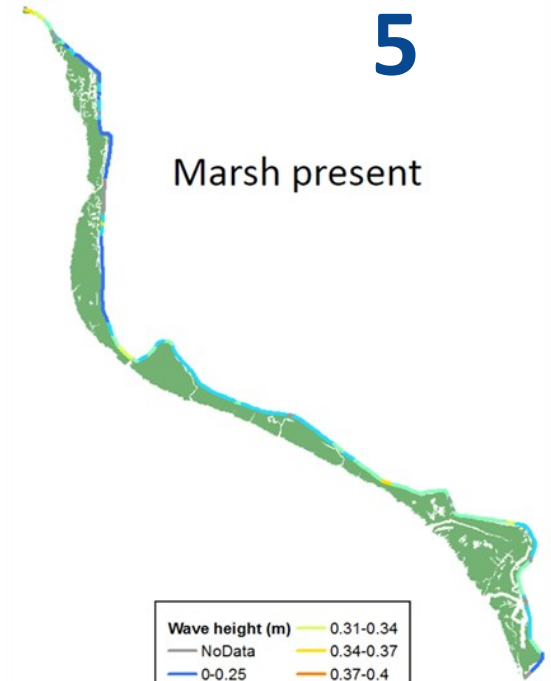
Saltmarsh Section	Saltmarsh area (m2)	Relative condition
Melton Marsh W (track)	26,737	77%
Melton Marsh W. (north)	1,228	75%
Melton Marsh W. (west)	4,722	65%
Melton Marsh E. (track)	8,826	88%



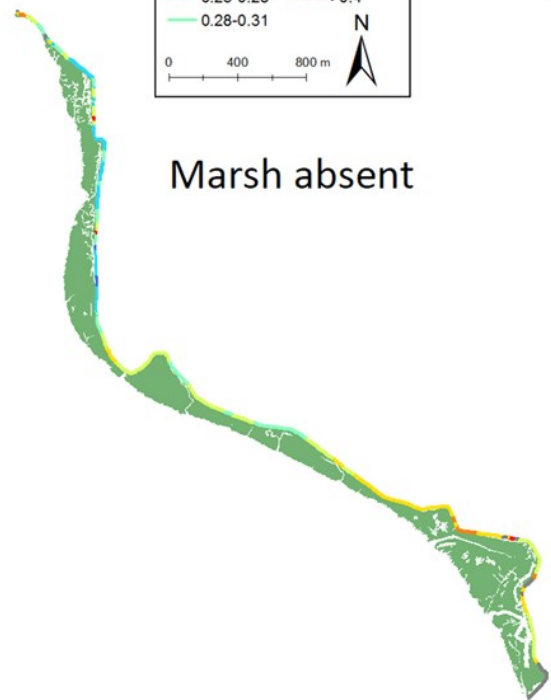
In some instances, the relationships between habitats and the benefits they provided is well documented. For example, coastal protection benefits from saltmarsh. Despite excellent evidence this knowledge has limited value for place based decision making as decision makers need to understand these relationships in situ. This requires location-specific quantification. The University of Cambridge developed a simple, highly resolved (<10M), GIS approach to quantify, with great certainty, the benefit the existing marsh had on the coastline. The effect of marsh on one small section of the Deben is illustrated, right. The simplicity of this method and its reliance on public datasets makes it suitable for wider application.

5

Marsh present



Marsh absent



The natural capital approach is likely to be delivered in partnership because the natural assets informing the approach will be owned, managed or benefit multiple parties.

To ensure just and fair development of the natural capital plan, early establishment of a clear and transparent governance structure is necessary. This is because people are fallible to external influences that perpetuate personal self interest at the expense of more equitable benefit .

Perspective, for example, is critical in defining the outcomes of a natural capital

approach. Taking a users' perspective provides opportunity to understand demand requirements and offers scope to improve productivity of natural environments, in terms of human benefit. However, this perspective risks environment functionality as the landscape becomes engineered for one specific benefit.

In any partnership, debates concerning who should benefit are inevitable, as each party seeks to preserve their interests. Governance structures must therefore mitigate any such debate in a proactive fashion to ensure objectives, role and responsibilities are well defined and agreed.





The natural capital approach necessitates behavioural change for decision makers as it reframes how the environment is considered. To deliver environmental improvement the natural capital approach must influence a critical mass of decisions sufficient to instigate change. This requires broad uptake and necessitates wide comprehension of the drivers by all concerned.

As the natural capital approach is informed by its evidence base, success relies on having evidence that is sufficiently robust to instil confidence in those reviewing it and sufficiently detailed to inform the consequences of change.

Governance will identify those with the responsibility for making decision about the natural capital plan and so identify who the evidence should be tailored for.

Though it is acknowledged natural capital evidence need not be comprehensive, an evidenced understanding of who benefits becomes a prerequisite for success as those making decisions become accountable to those benefiting from them—or not.

The Suffolk Marine Pioneer has identified this can be supported through highly resolved, geographically specific evidence. The Pioneer worked in partnership with the Universities of Essex and Cambridge to develop transferable methodologies to quantify the provision of benefits.

# Communicating Natural Capital

Participatory inputs, partnership approaches and public engagement require good communication of actions and progress if the natural capital approach is to be effective.

The terminology associated with natural capital is quite specialist and offers scope for misunderstandings. This has the potential to hinder progress and so underlines a need to carefully consider how those managing natural capital approaches communicate their intentions with stakeholders and partners.

Avoiding technical language and speaking in plain terms are simple actions that will always help messages reach their intended audience. Considering the language used to engage is however, unlikely to suffice when communicating with public and partner audiences. The requirement for the natural capital evidence base to be influential remains paramount.

To succeed, the evidence base must be comprehensible across three types of audience where, historically communication barriers exist;

- Scientists & the community
- Scientists & decision makers
- The community & decision makers

Each barrier presents it's own challenge, with the key to each only revealed through an examination of how evidence is expected to gain influence.

The reasons these barriers exist is best summarised by the explanation that people have different perspectives on how and why the natural environment provides value. In some cases, expressing this value is difficult or conveying it requires a high technical competency which creates communication barriers. Barriers persist, or may grow because of the tendency to work within known boundaries, rather than act to incorporate external influences. The Suffolk Marine Pioneer was able to address two barriers that helped to elevate the evidence underpinning the natural capital approach for Suffolk salt marsh.

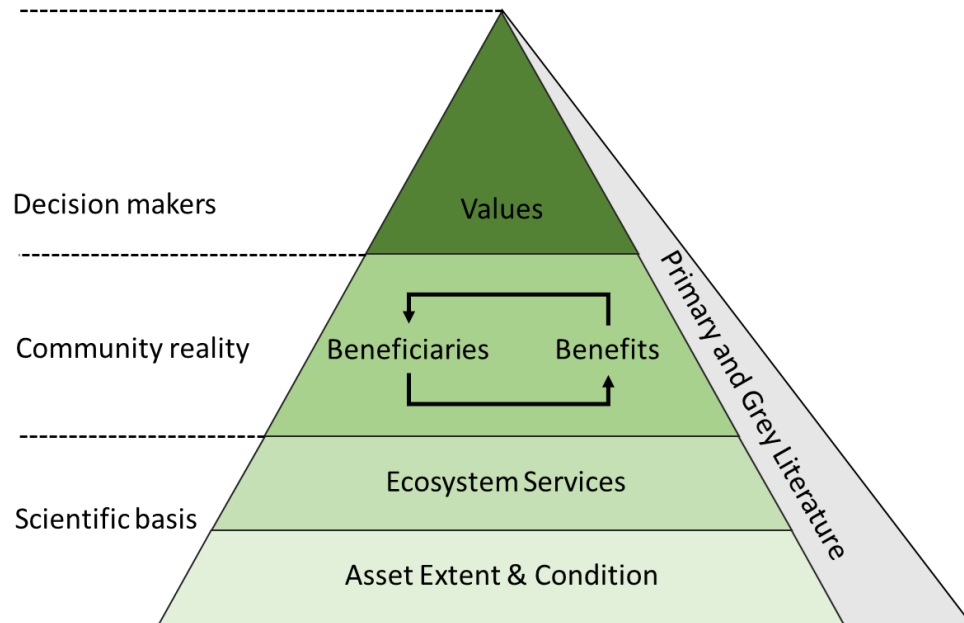




# Communicating Natural Capital

To bridge the gap between decision makers understanding of the lived reality, the Pioneer took a participatory approach<sup>1</sup>. Stakeholder participation allowed for a wider perspective of value to be evaluated and inform decision making. This helped to mitigate community concern that external influences would override local interest and empowered constructive dialogue around natural assets, benefits provided that can inform plan implementation.

The Pioneer used photography to overcome technical barriers to understanding. Photographers were invited to capture one of the four categories of ecosystem service where they were accompanied by an explanatory caption. These images removed technical knowledge barriers, helping discussions of 'natural capital' become conversations about the different values of nature.



<sup>1</sup> Different components of a natural capital evidence base are suited for different audiences. The communication barriers between these audiences need to be overcome if the evidence base is to successfully influence better decision making.



**Category:** Supporting Services — **Photographer:** Rob Coleman

This mason bee's home is man-made. Enabling nature to function in our built environment is becoming increasingly important as we reduce natural habitats for personal gain. If man is to continue to thrive, we must recognise our reliance on the natural world and move forward as one. Rob's image depicts a pragmatic mutualism that we can all deliver to the betterment of the environment.

# Impact

The natural capital approach is intended to inform better decision making they are intersect. For those seeking a more in-depth review of the Suffolk through overt recognition of the value of the environment. Interest in natural Marine Pioneer and a greater appreciation of the detail, please refer to the final capital has increased in recent years following the concept's inclusion in the summary report, available online at [suffolkcoastandheaths.org.uk](https://suffolkcoastandheaths.org.uk). Government's 25 Year Environment Plan despite limited application in a UK context.

The Suffolk Marine Pioneer alongside compatriot projects for urban, catchment and landscape environments, explored local application of the natural capital approach. The lessons summarised in this document are headline messages and do not convey the complexity of process supporting the message or identify how

Outputs from across the pioneer programme were provided to Defra in the summer of 2020. What follows will benefit from the learned experience of the pioneers, concurrent academic research and a number of natural capital themed partnerships that have developed as a consequence of heightened interest in the

Photo credits: Page 1,2 and 3: Andrew Bailey; Page 5: Liz Inwards; Page 6: Ben Green; Page 7 and 10: Natacha Bines; Page 8: Jill Adams; Page 9: Rob Coleman

