ENHANCING COLLABORATIVE GOVERNANCE

FOR COASTAL STEWARDSHIP IN THE UK

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ABSTRACT

The UK's extensive and diverse coastline is on the frontline of climate change and our response is challenging, because the governing system in place to manage coastal space is complex. Coastal governance lacks identity, having evolved in a fragmented manner across the land and sea. To adapt to change and protect people, property and wildlife, better governance and careful stewardship of coastal resources is needed.

The aim of this research was to review the powers and duties of existing governing bodies across the land-sea interface, and consider how to strengthen their roles to support collaborative governance and stewardship. The thesis provides unique insights into the socio-legal context for managing the UK coast: the regulatory, policy, planning and institutional framework. This was combined with a Delphi-based method which engaged a large group of experienced professionals and practitioners from across the UK, in an iterative dialogue about the current context and future direction for UK coastal governance. The results were verified through a practitioner workshop, where research participants identified actions to implement the recommendations.

A consensus was reached on the need to bring together top-down and bottom-up approaches to governance, encouraging planning and management at a scale that links people's sense of place with the coastal ecosystem. This would be driven by a new national coastal strategy and associated coastal policy, to support institutional collaboration and encourage engagement in decision-making from the local level. Nested coastal plans with democratic accountability would fulfil a governance gap and drive integrated planning across the land-sea interface.

The thesis concludes by proposing a collaborative governance framework and route-map for coastal stewardship in the UK. It combines insights from the literature with the consensus found amongst research participants. The government's role as a guardian of the public trust, alongside the rights and duties of public bodies and stakeholders, suggests strengthening existing and new local delivery networks based on coastal socio-ecological system units. Complete coverage and the strengthening of coastal and estuary partnerships could foster delivery through trusteeship and evolve the legal framework towards a guardianship approach. New coastal assemblies are proposed, to encourage investment in collaborative effort, and provide the coast and its communities with a stronger voice in future decision-making.

CONTENTS

LIST OF ABBREVIATIONS

AIP	Area Integrated Plans
AONB	Area of Outstanding Natural Beauty
CaBA	Catchment Based Approach
CoBA	Coastal Based Approach
CCT	Coastal Community Team
CEP	Coastal/Estuary Partnership
CIO	Charitable Incorporated Organisation
CIC	Charitable Incorporated Company
CPN	Coastal Partnerships Network
DEFRA	Department of Environment Food and Rural Affairs
DLUHC	Department for Levelling-Up Housing and Communities
EA	Environment Agency
EBA	Ecosystem Based Approach
EC	European Commission
EIA	Environmental Impact Assessment
EMS	European Marine Site (Management Group)
ES/ESA	Ecosystem Services/Ecosystem Services Assessment
EUCC	The Coastal and Marine Union (formerly the European Union for Coastal Conservation)
FCERM	Flood and Coastal Erosion Risk Management
ICM/ICZM	Integrated Coastal (Zone) Management
IFCA	Inshore Fisheries and Conservation Authority
LA	Local Authorities
CEP	Local Coastal Partnership
LEP	Local Enterprise Partnership
LNP	Local Nature Partnership
LP	Local Plan
MaCAA	Marine and Coastal Access Act
MCZ	Marine Conservation Zone
MHCLG	Ministry of Housing Communities and Local Government
MHWM	Mean High Water Mark
MLWM	Mean Low Water Mark
MMO	Marine Management Organisation
MP	Member of Parliament
MPA	Marine Protected Area
MS	Marine Scotland
MSFD	Marine Strategy Framework Directive
NDPB	Non-Departmental Public Body
NE	Natural England
NE	North-East
NGO	Non-Governmental Organisation
NI	Northern Ireland
NW	North-West
PEM	Participatory Engagement Mechanism
RFCC	Regional Flood and Coastal Committee

RMA	Risk Management Authority
RSPB	Royal Society for the Protection of Birds
RT	Rivers Trust
SE	South-East
SEA	Strategic Environmental Assessment
SMP	Shoreline Management Plan
SES	Socio-Ecological System
SW	South-West
TCE	The Crown Estate (including TCE Scotland from 2017)
UN	United Nations
UNEP	United Nations Environment Programme
UK	United Kingdom
WFD	Water Framework Directive
WWF	World Wide Fund for Nature
YEP	Year Environment Plan

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1 INTRODUCTION

Chapter 1 begins by highlighting the value of the coast and background to the problems which suggest it should be the focus for good governance. The aim of this research is outlined, its scope and boundaries, with an overview of the thesis chapters. Research questions and objectives are briefly described, with an introduction to the methodological approach. Finally, originality and the thesis' contribution to new knowledge are proposed.

1.1 Value of the Coast

The United Nations has recognised that coastal and marine ecosystems are amongst the world's most productive yet threatened ecosystems, producing disproportionately more services relating to human wellbeing than most other systems (UNEP, 2006; Fletcher *et al.*, 2021). The diverse resource base includes sand for beach tourism and construction, spawning grounds for fish, waste treatment, nutrient cycling, deep-water harbours for ports and navigation, shoreline protection for infrastructure etc. with widespread social and cultural benefits (Glaser and Glaeser, 2014). The Millennium Ecosystem Assessment (Reid *et.al*, 2005) recognised the UK as an 'island system' with a high proportion of coast to hinterland. The value of the UK coast has been recognised through British art and literature stemming back centuries (McInnes, 2014). The acquisition of 780 miles of UK coastline since 1965 through the National Trusts 'Enterprise Neptune' campaign demonstrates how the public value protection of coastal land from inappropriate development[1].

In 2017 the UK's Government Office for Science presented a vision for the future of the sea which would include numerous opportunities to gain health and wellbeing benefits from coastal environments (Depledge *et al.*, 2017)[2]. Evidence of the benefits associated with coastal environments presents a strong case for improving coastal governance (English Nature, 2004; Depledge and Bird, 2009; Wheeler *et al.*, 2012; White *et al.*, 2013; Bell *et al.*, 2015; Gascon *et al.*, 2017; Kelly, 2018)[3]. Over the past decade, the UK Governments' Ministry of Housing Communities and Local Government promoted 'The Great British Coast' investing over £200 million in the

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[1] National Trust 'Neptune' campaign. Source: https://www.nationaltrust.org.uk/features/fifty-years-of-neptune-coastline-campaign- (accessed 11.1.2020)

[2] *"The health and wellbeing of the UK's highly diverse coastal communities face serious threats now and in the coming decades; the mixture of climate change and sea-level rise, pollution and continuing development pressures, and socio-demographic change of human populations is key… There is, however, much that can be done through policy and other interventions to capitalise on numerous opportunities to gain health benefits from coastal environments, thereby promoting wellbeing and community resilience. Key are the inter-sectoral policies, with co-beneficial outcomes which derive from a shared responsibility for the future of coastal communities"* (Depledge et al., 2017)*.*

[3] The human well-being of coastal inhabitants is being shown to be higher than that of inland communities (Millennium Ecosystem Assessment, 2005 p.19; Hunt, 2019; White *et al.*, 2013; Wheeler *et al.*, 2012; Appleby *et al.*, 2016).

regeneration of coastal towns through Coastal Community Teams[4]. The current UK Governments'
25 Year Environment Plan highlights that the UK has 17,820 km of mainland coastline and
acknowledges its high value for landscape beauty, wildlife and provision of goods (HM
Government, 2018). The UK coast is deeply embedded into our culture, society and economy and
it high value suggests that it should be the focus for good governance.

1.2   Defining the Problem

The coast is experiencing significant pressures. Population densities in coastal areas are nearly
three times that of inland areas (UNEP, 2006) and increasing - putting pressures on coastal
ecosystems and increasing competition for natural resources which is often higher than inland or
at sea[5]. In many places, the quality of coastal habitats, the environment and conditions for
sustainable resource management are deteriorating. Over-development of coastal land damages
habitats such as salt marsh and mud flats, undermining their ability to provide a natural buffer
from the increased risk of storms and sea-level rise to protect land, property and the natural
resources upon which coastal communities rely[6]. There have been substantial losses of coastal
habitats in recent decades (MCCIP, 2020) and in total, losses include 85% of saltmarsh across
England (Estuarine and Coastal Sciences Association, 2022). There are many avenues towards
environmental protection through legislation, yet we are still experiencing significant damage
through overfishing, land-use change, habitat loss, invasive species, eutrophication from pollution
and the associated health impacts (Rees *et al.*, 2020). The conflicts between the high value placed
on coastal spaces and the intensive (and potentially abusive) use of coastal ecosystems provides a
strong imperative for this research.

Coastal communities have been under pressure to meet national or regional development
objectives for decades (European Council and OECD, 1992) and current examples include
infrastructure needs associated with renewable energy installations, aquaculture growth to
redress losses to fish stocks and investment in artificial coastal protection schemes. In addition,
social deprivation has become an increasing challenge (Walton and Browne, 2010; Coastal
Communities Alliance, 2017) and the UK Governments' current "levelling-up" agenda focuses on
addressing socio-economic issues in coastal communities (Swann, S. and Stephenson, 2021).

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[4] https://www.gov.uk/government/news/james-brokenshire-announces-over-36-million-for-the-great-british-coast (accessed 02.01.2020).
[5] "Provisioning, regulating, supporting and cultural services have all been affected by human use and indirect impacts on coastal habitats and some habitat types are close to being degraded to the point that important services will be lost altogether. Diminishing services caused by poor choices threaten the well-being of not only coastal communities, but coastal nations and the global community as well" (Agardy & Alder *et al.* in Marsh, W.M. and Kaufman, 2012).
[6] For example, sand mining and large-scale aggregate dredging may undermine the stability of the land on which coastal communities depend (Pilkey, O.H. and Cooper, 2014; Famuditi *et al.*, 2018).

Despite this combination of high value and intensive use, governance of coastal resources is often segmented, weak and complex (Glaser M, 2012) and coastal communities have been reported as the missing link in marine policy (McKinley and Acott, 2018).

Source: Adapted from UK National Ecosystem Assessment (2011) quoting Jones et al. (1993) and Delbaere (1998) for sand dunes and Morris et al. (2004), Doody (2008) and Cooper et al. (2001) for saltmarsh.
Notes: In total, around 13,000 hectares of coastal habitats (saltmarsh, shingle and sand dunes) have been lost since 1945. This represents 20% of the original area in 1945 of 61,700 hectares of coastal habitats, excluding mudflats.

Figure 1.1 The historical decline of coastal environments
Source: Committee on Climate Change (2018) p.37.

1.3   The Governance Challenge

Interpretations of '*coast*' underline a key element of this research. The framework of legislation, regulation, policy, planning and institutional framework governing coastal resources are numerous, and split between land and sea. This has led to a fragmented approach to managing coastal spaces. Monitoring and compliance standards based on specific indicators lack a holistic perspective. Development decisions based on individual projects are not conducive to strategic thinking about sustainable outcomes across the land-sea interface. Public engagement in decision-making is limited to consultation timelines and unknown understanding of or access to the evidence base. The evidence which decision-makers rely upon is typically oriented landward or seaward, lacking a systems approach to stewardship. A stronger understanding of the coast as a cross-boundary system is required, with a more focused approach towards its governance. In addition, practitioners appear to have quite different perspectives on the problem (or lack of) therefore research is needed to identify the existence (or otherwise) of common views about future direction.

The adequacy of governments' public responsibilities and the efficacy of their powers and duties towards coastal stewardship are questioned in this research. Despite the work of government and

voluntary initiatives highlighting the challenges faced in coastal areas, the rate of change and increasing vulnerability calls for a more radical shift in the way we look after coastal ecosystems. The source of many of the problems we face is in failures of governance, particularly the failure of our political, social, economic and administrative systems (Hay, 2016). Good governance requires mechanisms that encourage stewardship and represent the long-term public interest.

Over fifty years of environmental regulation have driven top-down approaches, alongside over forty years of voluntary co-operation effort from the bottom up. Yet significant challenges remain to bring these efforts together and implement an integrated approach that truly engages coastal communities in decision-making. With a new focus on statutory marine planning and the requirement to consider land-sea interactions, there is a need to review approaches to governance and find new practices for coastal stewardship (Bradshaw, 2018). A plethora of voluntary initiatives have evolved to encourage partnership working between stakeholders, but their effectiveness and ability to influence decision-making have been questioned (e.g. McKenna and Cooper, 2006; Fletcher, 2007). Indeed, the first ten years of marine planning for England have recently highlighted the need to improve coastal community engagement, place-based governance and stewardship (Lannin, 2021; Slater and Claydon, 2020). Therefore, this research seeks to identify how collaborative governance arrangements could be strengthened to better represent the coastal ecosystem and coastal communities in the future, and provide solutions which care for the coast as a complete system.

1.4   Aim

The aim of this research is to offer insights into how governance could be strengthened to encourage coastal stewardship. The research critically assesses current approaches to coastal governance including the legal, regulatory, policy, planning and institutional framework. The socio-legal context for coastal governance in the UK is explored, focusing on collaborative governance mechanisms and options to improve stewardship through participatory engagement. The research sits across the disciplines of geography, environmental science and law.

A wide range of practitioners from across the UK are engaged in this research through iterative surveys and a workshop. Their current perceptions of coastal governance are explored from many different sectors and levels of society. The findings are compared with options identified through a review of socio-legal literature, to propose new direction for collaborative coastal governance, which would embed stewardship deeper into coastal communities and their governing framework. Recommendations are sought for government and civil society leaders to suggest how coastal ecosystems and coastal communities could achieve a stronger voice in planning and

management decisions that span the land-sea interface, to better reflect the high value of coastal areas.

1.5   Scope and Boundaries of the Research

The research focuses on three concepts: the UK coast viewed as a socio-ecological system, collaborative governance, and stewardship. Table 1.1 below illustrates, by chapter, the key concepts explored through the literature review and defines the scope and boundaries of the research.

Table 1.1 Key concepts framing the scope of the research

The UK coast CHAPTER TWO	Collaborative governance CHAPTER THREE	Stewardship CHAPTER FOUR
Definition and value of the coast as a socio-ecological system (SES)	Approaches to governance	Stewardship concepts and options
Legal & regulatory framework: ownership, property rights & representing the public interest	Collaborative governance mechanisms	Partnerships and sustainability
Policy and planning context	Commons theory & collective action	Trusteeship and the public trust doctrine
Implementation capacity: institutions powers and duties	Participatory engagement mechanisms	Guardianship and legal standing: wild law
➔ **Socio-legal context**	➔ **Participation to support collaborative governance**	➔ **Socio-legal options for stewardship**

1.5.1   Literature review (Chapters 2-4)

There are three literature review chapters which reflect the key concepts illustrated in Table 1.1: the UK coast, collaborative governance, and stewardship.

The UK Coast

Chapter 2 introduces the background to coastal governance in the UK. It offers a systems perspective of the coast as a valuable space that straddles the land-sea interface, facing many challenges. Approaches to existing governance are described, with a comprehensive review of the existing legal, regulatory, policy and planning context, identifying the need for better coastal governance. The underpinning legal framework is explored in terms of property rights, ownership and representation of the public interest through the regulatory framework and public bodies. The institutional framework is presented, focusing on England with reference to differences in Wales, Scotland, and Northern Ireland. The evolution of voluntary policy towards integrated coastal (zone) management is described, together with the current approach to 'land-sea interactions' through marine planning and incentives for co-operation through UK legislation,

policy, and planning. Capacity for implementation in relation to institutional powers and duties is evaluated before outlining the socio-legal context for the research.

Collaborative Governance

Chapter 3 focuses on approaches to governance, providing rationale for framing the research on collaborative governance. Application of collaborative governance theory to coastal management and planning is generally limited and virtually absent in UK literature; therefore, this chapter provides a new contribution to the field. Concepts underpinning or connected to collaborative governance, including commons theory, collective action, and co-ownership models, are reviewed. They provide a political theory perspective and frame the review of existing collaborative frameworks both between institutions and with/amongst community interests. The chapter concludes with a focus on existing mechanisms for collaborative coastal governance, including the role of networks and ecosystem-based partnerships.

Stewardship

Chapter 4 explores socio-legal options for enhancing collaborative governance. The concept of stewardship and its definition is reviewed in the context of existing regulatory duties and property rights. Existing and potential socio-legal approaches are also explored. Firstly, the role of partnerships founded on the sustainability paradigm of recent decades and the legacy of coastal policy and voluntary initiatives are explored. Secondly, building on existing coastal and estuary partnerships through trusteeship and the potential to apply the public trust doctrine is considered. Thirdly, guardianship based on wild law is introduced to consider how legal standing for natural objects could apply to coastal ecosystems. The chapter concludes by bringing these ideas together with evidence of current stewardship, trusteeship and guardianship towards the coast across the UK. The interaction of these concepts is illustrated in Figure 1.2, where thicker arrows represent the perceived current practice and thinner/dotted arrows represent potential future options.
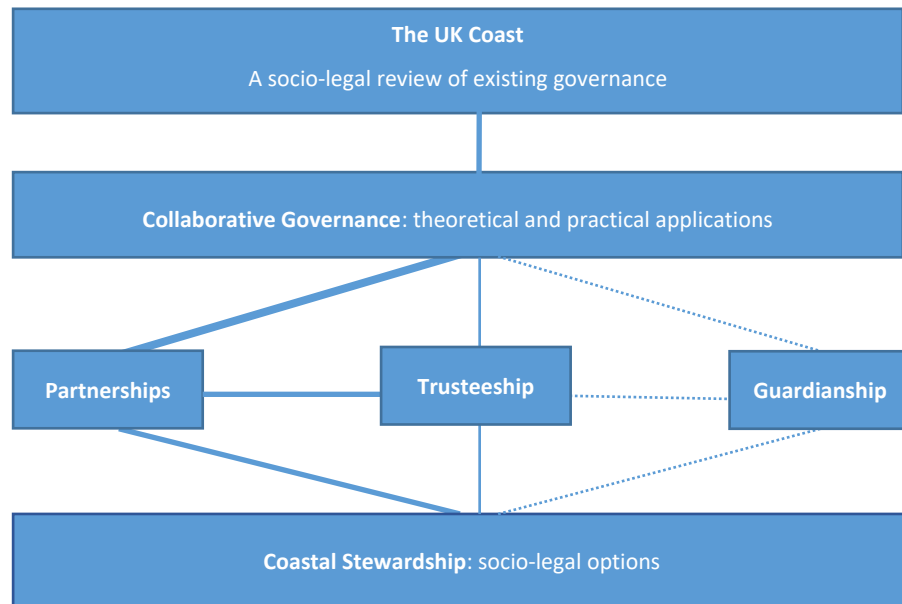
Figure 1.2 The interaction of key concepts explored in Phase 1 of the research

The literature review presented in Chapters 2, 3 and 4, provides the foundation for considering how well-governed the UK coast is and how it could be strengthened – through the legal, regulatory, policy, planning, institutional and voluntary approaches that promote coastal stewardship.

1.5.2   Methodology and Research Strategy (Chapters 5-6)

Chapter 5 describes the approach to the research based on the overall aim, outlining the objectives and research questions. The research is positioned alongside existing perceptions of coastal governance and stewardship in the literature and in practice, beginning with the conceptual framework. The researchers' ontological position is indicated together with the epistemological foundations for the research. A discussion of the methodological choices and the research strategy are described in four phases: Phase 1 (literature review), Phase 2 (Delphi-based process), Phase 3 (verification and workshop), and Phase 4 (evaluation and route-map). Mixed methods are employed for the surveys, with corresponding qualitative and quantitative analysis tools. The origins and nature of the Delphi method are described, with rationale for the Delphi-based approach used in this research.

Chapter 6 describes the primary research process: iterative surveys to explore expert opinion on future coastal governance. It begins with an overview of the timeline and describes how the participants were identified, their eligibility criteria and recruitment. Subsequent sections

describe the method in detail and how the results of each round informed the design of the next round.

The Delphi-based process involves three surveys:

- Round one (R1) which takes an open, inductive analytical approach based on grounded theory. It gathers qualitative data on existing perceptions of coastal governance and stewardship, plus participant attributes (interests) that could influence their response.
- Round two (R2) focuses on areas which featured strongly in R1 responses with insights from the literature. Through narrower questions, it explores potential future direction. Likert ranking scales are used to obtain mainly quantitative data as clear indications of consensus (or dissensus).
- Round three (R3) provides a verification step through an entirely quantitative online survey taking a wholly deductive approach. The aim is to verify (or otherwise) the results from R2 and confirm areas and degrees of consensus amongst the participants.

A key characteristic of the Delphi method is the sharing of results with participants between each survey round and gaining their feedback to inform design of the next survey. The iterative survey process is followed by a workshop with a self-selected group of the participants, to discuss the results and identify actions which would support implementation of the findings. Chapter 6 describes the Delphi-based process (Phase 2) and how it led to the emergence of themes reported in the results.

1.5.3   Results (Chapters 7-9)

The results from the three Delphi-based surveys concentrate on confirmed areas of consensus as it is a core aim of the research to highlight where consensus exists (Section 1.2). Each chapter describes the results across R1, R2, R3 and the workshop, for themes that emerge from the analysis of R1 responses:

- Approach to governance and collaboration to strengthen coastal governance: Theme A and B (Chapter 7)
- Organisations, the institutional framework and planning: Themes C and D (Chapter 8)
- Stewardship and vision: Theme E (Chapter 9).

The combined results and workshop outcomes form the basis for the discussion (Chapter 10).

1.5.4 Discussion (Chapter 10)

Chapter 10 draws together the results from the literature review (Phase 1) with the Delphi-based process results (Phase 2) and workshop outcomes (Phase 3), to compare the socio-legal context with existing expert opinion (Phase 4). This includes discussion of the drivers of collaborative approaches to coastal governance, the mechanisms that participants agreed make an important contribution and how they could be enhanced through a socio-legal route-map to encourage stewardship. Particular emphasis is paid to England and comparisons are made with devolved administrations (DAs) of the UK. A critical evaluation of the Delphi-based process and its potential contribution to marine social science is provided.

1.5.5 Conclusion and Recommendations (Chapters 11 and 12)

Chapter 11 (Conclusion) summarises how the aims and objectives of the research have been met and the research questions answered. It concludes on how this research makes a unique contribution to academic scholarship and coastal governance in practice.

Chapter 12 (Recommendations) provides overall recommendations for future law, regulation, policy, planning, institutions and voluntary approaches. Specific recommendations are offered to academics for further research and practitioners according to their institution.

1.5.6 Boundaries of the research

A socio-legal approach to research involves studying the context of the law in society, or research which is 'about the law.' It is different from what legal scholars distinguish as doctrinal research, which involves the study of the law in itself. This research considers the extent to which the existing powers and duties of regulatory bodies represent the public interest. Much of the current literature on commons theory, collective action and co-ownership has informed this research, but it does not pursue a new theoretical paradigm. Notions of the potential of the public trust doctrine and legal guardianship are considered but would require fuller doctrinal analysis to prove application of the theory in practice. This research focuses on the relevance and feasibility of legal concepts that could improve collaborative governance mechanisms to enable more stewardship. The research combines existing theory and legal scholarship with evidence from research participants involved in current professional practice.

The literature on collaborative governance has increased in scope beyond the co-ordination of institutional arrangements, towards engagement of the wider community through 'bottom-up' initiatives. The role of participatory engagement mechanisms (PEMs) is considered a means of bringing together institutions with stakeholders, community/user groups and wider society to

support collaborative governance. This research focuses on the role and extent of existing PEMs and partnership initiatives, rather than evaluating their 'internal operations' or ability to represent stakeholders. Representativeness is important in many ways for partnerships to build trust and have an effective role and contribution to collaborative governance, but the way in which stakeholders are *represented within* these partnerships, is beyond the scope of this research as it would require focused study in itself. This research explores the external operating environment in relation to the role of different collaborative governance mechanisms including partnerships - and the legal, regulatory, policy, planning, institutional and voluntary context in which they operate.

1.6   Research Questions and Objectives

The overall aim introduced in Section 1.2 is addressed through three research questions and four objectives, which are introduced here and explained more fully in Chapter 5.

1.6.1   Research Questions (RQs)

The research will investigate *how* collaborative governance framework(s) could be enhanced to improve stewardship of the coast. There is an underlying assumption that enhancing collaborative governance mechanisms *will* improve coastal stewardship and lead to the better management of coastal ecosystems, so the research is focused on *which* mechanisms and *how* they could be strengthened. Justification is given for this assumption in the literature review (Chapter 2).

The following three research questions (RQs) were determined:

- Research Question 1 (RQ1): *What socio-legal options could lead to better stewardship?*

- Research Question 2 (RQ2): *Which mechanisms support collaboration for coastal governance?*

- Research Question 3 (RQ3): *How could collaborative governance be enhanced to improve stewardship of the UK coast?*

1.6.2   Objectives

The principal objective is to evaluate the current coastal governance arrangements which operate in the UK and the extent to which they demonstrate collaborative governance. Through the socio-legal approach to the research questions, opportunities for enhancement of coastal stewardship are identified.

The following objectives (O1-4) will seek to answer the above research questions and structure the research:

- Objective 1 (O1) links to RQ1: Review socio-legal options which could encourage stewardship.

- Objective 2 (O2) links to RQ2: Critically assess collaborative governance frameworks.

- Objective 3 (O3) links to RQ3: Test the recommendations from the primary research and identify actions for implementation.

- Objective 4 (O4) links to RQ3: Explore the recommendations and compare them with the literature to identify a governance framework and a socio-legal route-map for coastal stewardship.

1.7 Methodological Approach

There are four phases to the research which are illustrated in Table 1.2, linking the purpose with each thesis chapter.

Table 1.2 Phases of the research

RESEARCH PHASE	PURPOSE	THESIS CHAPTER
1	LITERATURE REVIEW Desk-based review of UK coastal governance approaches, socio-legal context and future options which could improve stewardship.	Chapter 2: The Coastal Ecosystem Chapter 3: Collaborative Governance Chapter 4: Stewardship.
2	METHODOLOGY Primary research explores expert opinion on future coastal governance.	Chapter 5: Methodology and Research Strategy Chapters 6: Delphi-based Method and Workshop
3	RESULTS Presents the findings to identify implementation actions.	Chapter 7: Results Part One Chapter 8: Results Part Two Chapter 9: Results Part Three
4	SYNTHESIS, CONCLUSIONS AND RECOMMENDATIONS Links the current socio-legal context for UK coastal governance and future stewardship options (Phase 1) with the survey and workshop results (Phases 2-3); to formulate recommendations and conclusions (Phase 4).	Chapter 10: Discussion Chapter 11: Recommendations Chapter 12: Conclusions.

Chapter 5 (Methodology and Research Strategy) and Chapter 6 (Delphi-based Method and Workshop) present the full rationale for, and justification of, the approach to answering the research questions.

1.8 Contribution to Knowledge

The new contribution of this thesis to knowledge is provided through three approaches. Firstly, an interdisciplinary approach brings together different areas of academic and grey literature relevant to the current context for UK coastal governance, particularly the environmental, social, planning, and geographical context with elements of political theory as part of a socio-legal review. This is a unique combination of knowledge applied to the problem. Secondly, extensive primary research

gains insights from professional practitioners across the UK. Their active participation in an iterative process with shared feedback, offers participants new insights that can be applied directly in their professional practice. Thirdly, findings from the socio-legal review and expert opinion through the Delphi-based process and workshop are combined to present a collaborative governance framework and route-map to enhance coastal stewardship.

2   THE UK COAST: Existing Governance

Chapter 2 discusses how the coast can be defined, its value, the problem at hand and existing obligations on government and key users of the marine and terrestrial environment. The complexities involved in managing space across the land-sea interface prescribe the need for better governance. The legal and regulatory framework is introduced with a discussion about property rights, ownership and representation of the public interest. This is considered in relation to the institutional framework for collaborative governance, focusing on England with reference to differences in Wales, Scotland and Northern Ireland. The socio-legal approach is elaborated further through a review of existing policy and planning and the background legacy of integrated coastal zone management institutional framework for the coast. Future capacity for implementation is considered, based on existing powers and duties to collaborate. This chapter provides the foundations for RQ1 and O1 (see Section 1.6) which are developed further in Chapter 4.

2.1   The Coast as a Socio-Ecological System

In simple terms the coast is where the land meets the sea - it is a meeting point - but it should not be considered as a line on a map or a narrow zone, it is a system (Haslett, 2000). These systems do not have their own defined space, resources are managed by many bodies, and their influences are far reaching[7]. Perceptions of the coast vary, with no single consistent definition of it in legislation, policy, planning - or people's conscience. Constructs of coastal identity continue to operate uneasily within perceptions of terrestrial and marine environments (Crawford, 2019). A coastal ecosystem requires 'fuzzy boundaries' for effective management (Stojanovic and Farmer, 2013; Domínguez-Tejo *et al.*, 2016; Gjaltema, Biesbroek and Termeer, 2019). The lack of common understanding, definition and recognition of coastal areas presents challenges for its governance.

This research considers the coast as an open space where land meets the sea with the 'zone of influence' dependent upon the issue to be considered: it is necessary to respect the multiple interests, users, and demands on resources in this transitional space[8]. Reference is made to the terms 'land-sea interface' and 'land-sea interactions' (LSI) as this is a relatively new interpretation

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[7] The coast…*"Includes areas above and below the water line, a zone where terrestrial environments and processes influence marine ones, and vice versa… This liminal space is neither land nor sea: rather, it is a zone that merges two distinct geo-and biophysical domains. At the shore, the land's seeming solidity and stability meet the liquidity and constant motion of water… The coast presents a continually changing land/seascape…"* (Gibbs, 2018) *in* Peters, Steinberg, and Stratford (eds.), p.203).
[8] For example, a coastal issue such as the health of a saltmarsh or the quality of a beach depends on physical and human-induced changes. It is linked to spatial influences from offshore and inland, the extent of which will depend upon the issue or problem such as pollution, sea-level rise, land use, or property development.

of the coastal zone[9], being used in policy for maritime spatial planning across Europe (European Parliament and Council of the European Union, 2014) and, to some extent, in the UK. The term 'Integrated Coastal (Zone) Management' (ICZM) is also used due to its international, European and UK policy application where it is referenced in the Marine Policy Statement (HM Government, 2011) and National Planning Policy Framework (Ministry of Housing Communities and Local Government, 2019).

Definitions of the "coast" seldom correspond with existing administrative or planning units (European Commission, 2019). Political and planning boundaries are usually drawn for socio-economic and cultural reasons. In the UK, the land use planning system evolved a century ahead of marine planning and neither system defines a specific coastal zone or takes full responsibility for the coast as a socio-ecological ecosystem, they rely on an overlap between mean high and mean low water marks. The basis for the use of the term 'coast' can be summarised as the:

Space, where land and sea meet and the issue to be considered, determines the 'zone of influence' where multiple interests, users and demands cross the terrestrial and marine environment.

Socio-ecological systems (SES) are well recognised in the literature to reflect the dynamic nature of geographical space and institutional structures, founded on the work of Elinor Ostrom (Ostrom *et al.*, 1999; Ostrom, 2007; Ostrom and Basurto, 2009; Basurto and Ostrom, 2018) in contrast to Hardin's 'tragedy of the commons' (Ostrom, 2008; Hardin, 2009). Examples of how the concept is adopted include resilience planning (Folke, 2003; Walker *et al.*, 2004; Bavinck *et al.*, 2017), transformative governance (Chaffin *et al.*, 2016), to inform management (Leenhardt *et al.*, 2015), for ICZM and participatory approaches (Ernsteins *et al.*, 2017), and to support the delivery of ecosystem services for societal value (Everard, M. and Appleby, 2009; Everard, 2019). The term 'coastal SES' therefore refers to an area of coastline plus the marine and terrestrial hinterland that influences that space (and vice versa), whether induced by physical, chemical, biological or human pressures.

Alongside the challenges surrounding definition, management is often more complex and challenging in the coastal zone (Shipman and Stojanovic, 2007; Entec (UK) Ltd, 2008; Kelly, Ellis and Flannery, 2019; O'Hagan, Paterson and Le Tissier, 2019 *in press* and others). Governance difficulties often stem from a lack of knowledge of ecosystem structure, functioning dynamics, and the need to balance different activities at multiple (temporal and spatial) scales. *"This reality*

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[9] The term 'coastal zone' is used in the US Coastal Zone Management Act (1972), European law (Gibson, 2003), and South Africa's Integrated Coastal Management Act (2008).

generally fits uncomfortably into existing legal structures" (Craig and Ruhl, 2010, p.1363). Resource users and regulatory agencies have conflicting interests and responsibilities in different geographical inland and/or offshore areas. The coast needs to be considered as a SES (Walker *et al.*, 2004; Paavola and Hubacek, 2013; Berkes, 2015; Adger *et al.*, 2018) and its governing framework reflect this need.

2.2   The Need for Better Coastal Governance

Increasing attention on coastal planning and management has emerged in recent decades through legislation, policy, and practice worldwide. The United States Coastal Zone Management Act (1972) was the first specific coastal legislation. Early European Community action programmes drew special attention to coastal areas leading to the European Coastal Charter in 1981 and in 1992 the UN Earth Summit called on coastal states to set up Integrated Coastal Zone Management (ICZM) strategies (UN, 1992). The UK strategy was published in 2008 (see Section 2.6.1). Mediterranean countries pursue the adoption of an ICZM Protocol (2010). South Africa introduced an ICZM Act (2009) but, as in Europe, implementation has proved the greatest challenge (Taljaard, Slinger and van der Merwe, 2013; Taljaard, van Niekerk and Weerts, 2019).

There have been calls for further coastal zone legislation to define roles and responsibilities, meet environmental objectives to deal with property rights, arbitrate in disputes and advise on how governance arrangements could encourage an integrated approach (European Council, 1992; Billé and Rochette, 2015). The legal context, political will and appetite for ICZM legislation has varied hugely (Gibson, 2003) but over the past decade, attention has turned towards maritime and marine policy with the drive for 'blue growth'. However, UNEP continue to promote the need for ecosystem-based management and governance of oceans and coasts (Agardy, Davis and Sherwood, 2011; Fletcher *et al.*, 2021). The Committee on Climate Change (2018) made recommendations to the UK government about managing the coast in the face of a changing climate. It was recognised that the "large number of different decision-making bodies leaves open the possibility of conflicts between priorities". This is illustrated well by the key actors and stakeholders involved in flood and coastal erosion risk management (FCERM), as shown in Figure 2.1 below. Note the underpinning role of 'businesses, property owners and residents', but limited representation of *how* civil society engages in this decision-making framework.
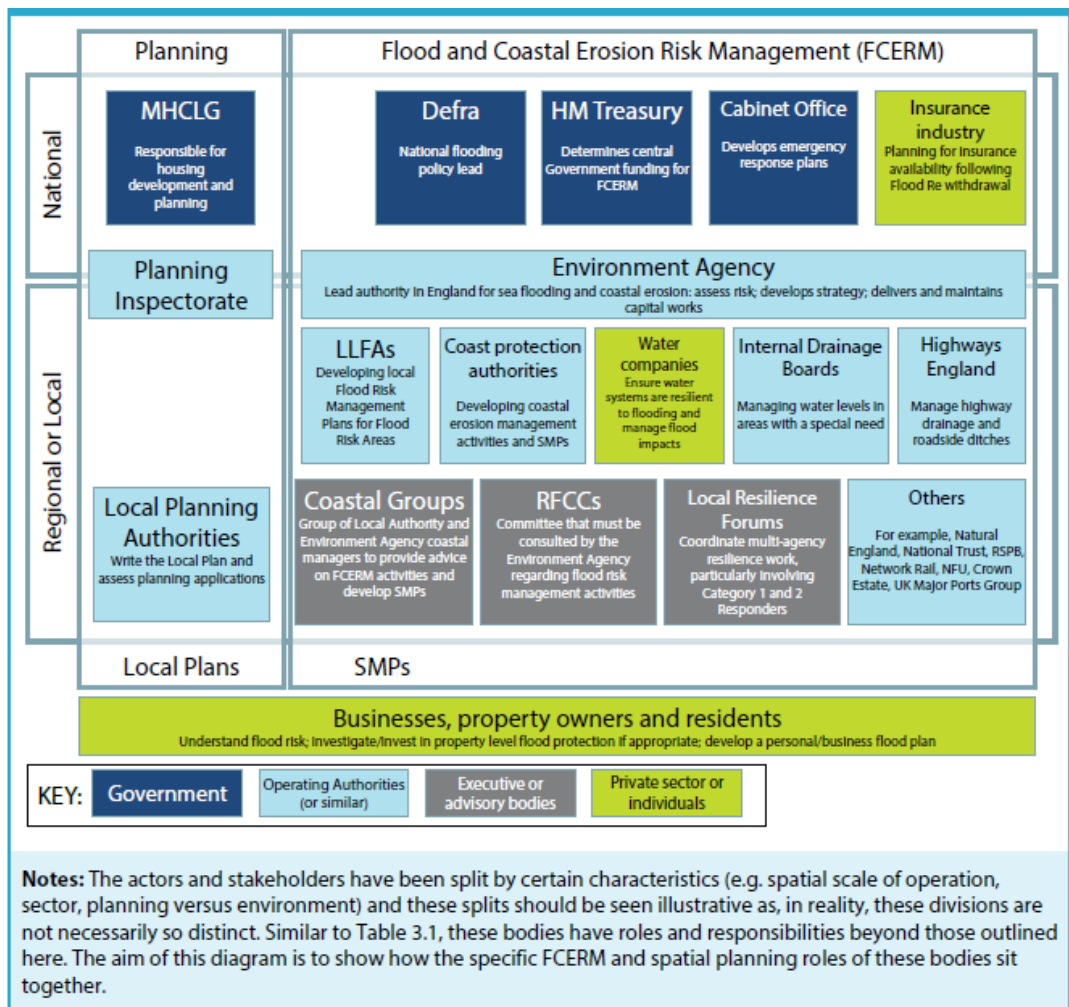
Figure 2.1 Key actors and stakeholders involved in UK flood and coastal erosion risk management
Source: Environment Agency and Defra (2011).

Berkes (2015) argues that more interdisciplinary approaches are needed to increase the resilience of coasts, working towards SES-based management. Resilience planning requires governance processes that foster transformative change (Armitage, Charles and Berkes, 2017) as shown in Figure 2.2 below. The need for better governance of the UK coast has recently been recognised by the Environment Agency's 'Championing Coastal Coordination' programme[10] and DEFRAs Natural Capital Ecosystem Assessment programme[11].

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[10] Damian Crilly *pers.comm.* (November, 2021) Environment Agency. See:CMS News (accessed 13.02.2022).
[11] Sarah Young *pers.comm* (February, 2022) Defra Marine Natural Capital Ecosystem Assessment (NCEA) programme.
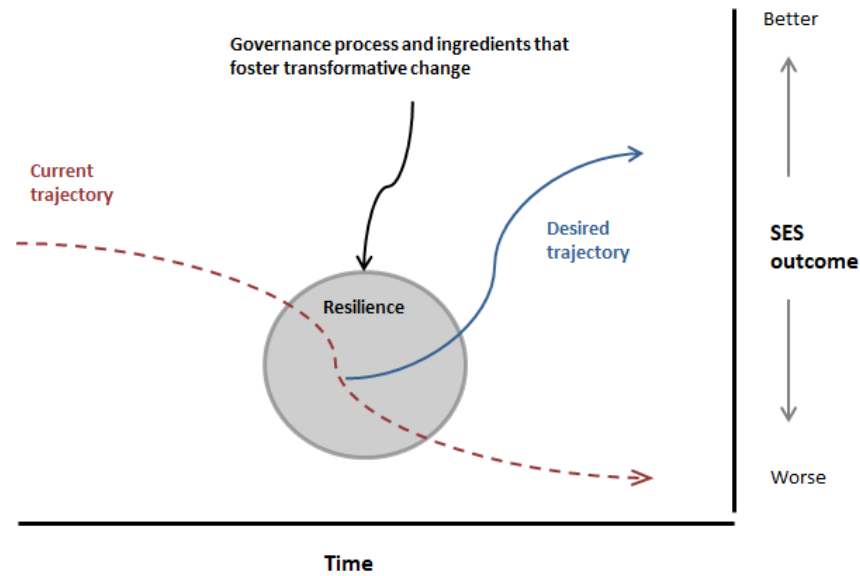
Figure 2.2 Trajectory of change and transformations for coastal resilience: the role of governance processes
Adapted from Armitage, Charles and Berkes (2017)

SES = Socio-Ecological System (see Section 2.1)

Integrated, ecosystem-based approaches to support governance of the coast have therefore been framed in international and European legislation and policy to some extent, but their implementation continues to be challenging. With or without framework legislation there appears to be recognition of the need to re-focus attention on coastal governance arrangements. The extent of the challenge suggests a deeper review of the socio-legal context for governing the coast from a SES perspective, as contextualised by this research.

2.3   A Socio-Legal Approach

This research takes a socio-legal approach to the challenges illustrated in this chapter. Socio-legal scholarship involves the role of law in society, law in action, or application of the law to the social context.[12] This perspective enables 'open' consideration of the role of law or how the legal system plays-out in the creation, maintenance and/or change of a situation – in this case how the legal, regulatory, institutional, planning and policy framework is working for the coast as a SES. It takes a less positivist approach than pure legal analysis to review how law relates to a "*social situation*" (Schiff, 1976 p. 289). Social science insights have increasingly contributed to improve legal institutions, recognising the two-way benefit as the law should not be considered as a closed system: it evolves only when the passion for justice is shared by all members of society (Jones,

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[12] Julius Stone was a key proponent in his book 'Law and the Social Sciences' (1966) and the field of socio-legal inquiry has grown slowly over the subsequent years in different ways.

1963). Therefore law should reflect the values of existing (as well as historical) society to be effective and minimise inappropriate application and non-compliance[13].

Over the past fifty years, environmental regulation for the coast and marine environment has seen substantial growth (Earll, 2018), but it is necessary to evaluate how effectively it is in achieving its original aims. With increasing calls for more targeted and rapid responses to environmental crises (e.g. Extinction Rebellion campaigns) and the need to meet global targets (e.g. Convention on Biological Diversity), socio-legal approaches could offer solutions to improving society's implementation of regulation and/or help to identify new modes of environmental stewardship. The convergence of legal and geographical perspectives in social science research is particularly relevant to concerns over coastal space spanning two very different domains (land and sea).[14] As has been suggested, each domain has different property ownership, regulatory, policy and institutional frameworks and, therefore, very different governance contexts. There are different power relations between statutory and non-statutory bodies at different geographical scales (as shown in the next chapter), symbolic associations between people and place, and complex interactions between all stakeholders. Options for governance extend beyond legislation, the top-down role of formal government institutions and stakeholder engagement processes to more open and inclusive 'bottom-up' forms of governance.

By way of example, recent socio-legal research by Heldeweg and Saintier (2020) indicated how coastal communities and their linked socio-ecological systems can be viewed as socio-legal institutions in relation to renewable energy opportunities[15]. A more participative approach to decision-making is evolving, but the extent to which the law has responded is limited (Everard, M. and Appleby, 2009)[16] with many decisions still being made using traditional top-down 'consultation' rather than 'engagement' approaches. Everard and Appleby (2009) assert that the scope of common law could be expanded to protect public wellbeing and resource stewardship. Bavinck *et al.* (2017) presented a socio-legal approach to coastal problems and elaborated on the concept of 'coastal grab' based on a SES analysis with a socio-legal property perspective[17]. They

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[13] In the 1960s, Jones (1963) recognised that Anglo-American society was experiencing a 'law explosion' and that law and legal institutions needed to be kept in touch with contemporary social needs and aspirations.

[14] The renowned Geographer Doreen Massey suggested the usefulness of exploring legal geography since "Space is by its very nature full of power and symbolism, a complex web of reactions of domination and subordination, of solidarity and cooperation" (Massey, 1992 p.81).

[16] The UN Aarhus Convention (1998) encouraged greater public participation in environmental decision-making but "its requirements for comprehensive public engagement and deliberation leading to decisions, remain far from widely in evidence" (Everard, M. and Appleby, 2009 p.20).

[17] The concept of 'coastal grab' could also apply to the UK coast which has been hugely modified in many areas such as the industrialised estuaries of the Tyne, Tees, Humber, Mersey, Thames and the Solent. The risk of privatisation of coastal land and the protection of it for conservation and public enjoyment was a major driver for The National Trusts' purchase of significant stretches of coastline around the UK.

argued the case for local communities who depend on natural resources at the coast and how coastal problems have triggered diverse responses, including joint action, partnerships, political engagement, empowerment and community agency towards conservation and appreciation of local knowledge (Bavinck *et al.*, 2017 p.14). Understanding how ordinary people relate to the law serves to understand how effectively and efficiently environmental measures can be implemented (Pieraccini and Cardwell, 2016 p.28). Therefore, a socio-legal approach provides the context for implementing the law: social acceptability can lead to less demand for (expensive) enforcement action and, given the right legal, regulatory and policy conditions, encourage stewardship.

2.4 Legal and Regulatory Context

The legal framework for coastal governance is delivered through a multitude of regulatory responsibilities placed on owners and government bodies to carry out functions stemming from different parts of international, European and UK law. Fundamental aspects of governance include inherited legal notions such as ownership, rights and sovereignty (Blomley, Delaney and Ford, 2001). The powers and duties to govern stem from underpinning ownership and property rights. This suggests consideration of whether the evolved regulatory environment creates governance that acts in the 'public interest'.

2.4.1 Ownership

In the UK, land is predominantly privately owned. With the exception of public open land managed by Local Authorities (e.g. country parks, campsites) and in some cases access to land (for example, around ports), the coastline above high water is predominantly in private ownership. However, a high proportion of foreshore and seabed is public with TCE owning approximately half of the UK foreshore (45%)[18] and most of the seabed. TCE grants a right of navigation, access and use of the foreshore (including most beaches) to the public (Crown Estate Act (1961) Section 6(1))[19]. They may '*dispose of land (or of a right or privilege over it) for use or occupation for a public purpose including sea-walls, water-courses and communal facilities for recreation or any other public or charitable purpose*' (HM Government, 1961). TCE has the responsibility to manage the coastal and marine environment sustainably but some of its management is divested to others, in particular the marine planning authorities in England and Wales and the Crown Estate

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[18] 'How to buy your own British beach' by *This is Money* 1st April 2011. Source: https://www.thisismoney.co.uk/money/mortgageshome/article-1718693/How-to-buy-your-own-British-beach.html (accessed 13.02.2020)
[19] Power to make regulations for land open to public (Section 6(1)): *The Commissioners may make such regulations to be observed by persons using land of the Crown Estate to which the public are for the time being allowed access as they consider necessary for securing the proper management of that land and the preservation of order and prevention of abuses on that land.*

Scotland[20]. Coastal and inshore marine resources such as fisheries and aggregates are generally owned and managed by the state under territorial rights and their use overseen by UK Government departments (i.e. Defra) with advice from NDPBs (e.g. Natural England) and these bodies have a duty to represent the public interest.

The coastal strip is therefore a meeting point of private and predominantly public ownership with largely open access to the sea. A higher proportion of the coast and marine environment is in public ownership compared to the terrestrial environment. Private ownership is attractive due to the high value of coastal land but the TCE, Local Authorities and the National Trust[21] are key players involved in retaining open access and balancing demands on coastal space and resources.

2.4.2 Property rights and the public interest

The value of property for human use has become a widely accepted norm. Our contemporary social order is largely based on private property rights and free market mechanisms (Naffine, N. *in* Grear, A., 2012). Most of our land has been privatised and there is acceptance of private property rights which are considered to be a wealth generator. However, private property is more likely to be managed for maximum short-term profit and may conflict with the longer term public interest. Private property ownership and associated rights may incentivise stewardship action but there is a risk of privatising resources where it is not in the long-term public interest and may not be retrievable by the state: Appleby *et al.* (2018), illustrate how legal blindness has led to the privatisation of fisheries quota, unfair distribution of the resource and the loss of state control. The line between public interest and private ownership rights is not always as clear-cut as one might expect and, in some cases, could explain the 'race to the bottom' in resource exploitation. The state needs to be careful about leasing rights over public assets to ensure it fulfils its longer-term stewardship duties.

This raises questions about other coastal/marine resources such as TCE permitting the use of the seabed for aggregate dredging and offshore wind farms; the MMO licencing powers[22] for the construction of coastal and offshore structures, harbour authorities and local authorities issuing mooring licences that can be traded between 'owners' (building up some expectation of property

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[20] The management of Crown Estate assets in Scotland was devolved from the UK in 2017 through The Smith Commission (2014) and The Scotland Act (2016)[20] to be managed by the Crown Estate Scotland Note that in feedback to a survey of coastal tenants to help set the agenda for Crown Estate Scotland (March, 2020) priorities for development were largely around the protection of the marine and coastal environment, sustainable development, management/reduction of fish and salmon farming and ensuring access to the shoreline. https://www.crownestatescotland.com/media-and-notices/news-media-releases-opinion/feedback-from-coastal-tenants-helps-set-crown-estate-scotland-agenda (accessed 26.03.2020).

[21] A notable exception to private land holdings has evolved through the National Trusts 'Neptune' campaign which, since 1965, has enabled them to purchase 775 miles of coastline, nearly 10% of the coast of England, Wales and Northern Ireland. Ownership is gained largely to protect coastal land from development and is mainly made accessible to the public for enjoyment.

[22] https://www.gov.uk/guidance/do-i-need-a-marine-licence (accessed 26.03.2020).

rights) and IFCAs issuing permitting byelaws (Bean, 2021). The ability to manage a resource more collectively and in the 'public interest' may be lost if the state is exposed to property rights claims (Weinstein, Hardin and Baden, 1978; Rodgers, 2009; Kadirbeyoglu and Özertan, 2015)[23].

It is therefore appropriate to question whether current ownership rights and the state's (UK Government) regulatory approach to coastal and marine resource management are fulfilling its stewardship duties. Resource use is often determined through top-down licencing procedures and consultations on individual development projects, when public scrutiny of early strategic planning may be lacking. Environmental regulation has arisen in recent decades to help manage resource use and exploitation but there are concerns about the effectiveness of this regulatory approach (Boyes, Warren and Elliott, 2003). Top-down regulatory controls may cause segregation between people's property rights and their approach to stewardship duties. Some authors (e.g. Rieser *et al.*, 1991) question whether property rights in ecological resources are compatible with existing environmental protection needs, regulatory approaches and a free-market economy based on private property rights (Adler, 2019; Leonard and Regan, 2019). The equitable distribution of resources between people, while giving space to nature, is becoming increasingly challenging. Private and public interests are not always aligned; therefore, individuals must have incentives or carefully drawn duties to act in the public interest (Barnes, 2009). This has led to new calls for a greater sense of awareness, local 'ownership' and control in order to encourage more sustainable practice (Wightman, 2013)[24]. The situation raises questions about the effectiveness of existing rights and duties on regulators and owners - whether public or private - towards the longer-term stewardship of natural resources.

2.4.3   Regulatory approaches and non-use value

The ability of a purely regulatory approach to encourage stewardship is questionable.

"We tried to get conservation by buying land, by subsidizing desirable changes in land use, and by passing restrictive laws. The last method largely failed; the other two have produced some small samples of success" (Leopold, 1994).

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[23] In the UK, the sovereign state has general duties towards good management through the Crown Estate Acts (HM Government, 1961 s.1(3)) with stated aims to enhance the value of the rural estate through active management, stewardship and community engagement (The Crown Estate, 2019). In reality, property rights in the inshore and offshore marine environment are largely governed by issuing of licences by TCE, the MMO (and equivalent DAs) and the National Infrastructure Planning Committee. The local Government is consulted on larger-scale projects/plans but only controls local/regional-scale planning issues. The extent to which the decisions reflect the public interest could be more open to scrutiny through the regional marine planning system, which is still in its infancy.

[24] Increasing efforts are being invested in campaigns to inspire and support responsible use and resource stewardship (e.g. ocean literacy campaigns to reduce plastic pollution), mobilising community action alongside top-down regulatory control.

Regulatory bodies are largely geared up to enable beneficial use, based on privatisation and the free-market economy. However, there is growing awareness of the need to remove the legal and institutional barriers, including private property rights, to establish non-use rights to natural resources, recognising that "*the highly motivated few may provide something close to efficient conservation for the many*" (Leonard and Regan, 2019, p.179)[25]. These authors argue that the legal, institutional and political barriers to acquiring non-use rights may be harder to overcome than the financial resources to acquire property for stewardship purposes.

Adler (2019) argues that "*working at the local level, conservationists have often rediscovered Aldo Leopold's counsel that private rights can be more effective than government regulation*" (Adler, 2019, p.xiii). Privatisation (or something formally like it) creates a set of people with strong personal stakes, averting the tragedy of the commons scenario (Hardin, 1968) with owners having more incentive to act as stewards. Property-based approaches have the potential to supplement traditional government-driven management of natural resources and environmental regulation, and there is an argument to suggest that governments do not necessarily 'have the advantage' at landscape-scale conservation (Paavola and Hubacek, 2013; Guerrero *et al.*, 2015). However, buying land or subsidizing changes in land use ought not to be the only way to conserve non-use value. The state's role as owner and regulator may conflict with ecological aims (Regalia and Hall, 2019) - as has been demonstrated by the potentially conflicting aims of TCE over the commercial use of marine resources.

There are therefore conflicting perspectives on whether private property ownership and state regulatory approaches are effective for longer-term (inter-generational) resource stewardship. As the need to reflect non-use value and natural capital approaches (e.g. Acreman, 2018) have come to the fore, there is cause to reflect on the potential need for institutional change and/or other mechanisms to ensure stewardship.

2.4.4   Commons approaches and stewardship

During the 20th century there was growing recognition of the wider societal benefits flowing from landscapes. In contrast to the tragedy of the commons (Hardin, 2009) and theories that common-pool resources are at risk of over-exploitation, it could be said that it has been the failure of the regulatory system or our ability to establish effective regulatory alternatives to open access that

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[25] NGOs and Trusts acquiring leases on state trust lands in the U.S. have faced significant legal scrutiny when it comes to non-use value, because the fiduciary trust responsibilities of the state may suggest there is a duty to ensure fair market value and maximum economic returns from trust lands. The Idaho Watersheds Project overcame this by foregoing the highest use value as long as revenue was maximised for 'trust beneficiaries' which could be NGOs or groups of individuals seeking longer term resource stewardship.

have resulted in environmental degradation. UK planning and human rights law has responded to the increasing need for a more participative and equitable process for respecting the rights and responsibilities of all, not just landowning interests, through environmental regulation, commons approaches and payment for ecosystem services (e.g. Lohmann, 2016; Paavola and Hubacek, 2013; Cole *et al.*, 2014; Solazzo, Jones and Cooper, 2015). The increasing annexation of land and resources for private benefit may be overturned in favour of the importance of common resources for public benefit (e.g. Everard, 2011; Bollier, 2014). Trends over the past decade have recognised that the tide of privatisation may be shifting towards more community-oriented control. The UK's embracing of the natural capital approach may offer opportunities in this direction (Evans *et al.*, 2017; Acreman, Maltby and Bradshaw, 2018; Rees *et al.*, 2020).[26]

In order to balance the regulatory role of the state with the needs of communities, there are growing examples of 'bottom-up' initiatives, such as community-based collaborations which assert property rights in the US (Dukes, Firehock and Birkhoff, 2011; Firehock, 2011) or biocultural rights, particularly in the global south (Bavikatte, 2014). In coastal areas there is an emerging paradigm change towards resource governance which is more based on a systems view and commons theory (Berkes, 2015). In the UK, the Government's Localism Act (Section 88, 2011) recognised 'land of community value' to 'further the social wellbeing or social interests of the local community' (S2) where 'social interest means cultural, recreational or sporting interest' (S6 (b)).[27] Most interesting and relevant is the acknowledgement that:

"…there is a tension between the community's rights and those of the individual. The [Localism Act, 2011] change[s] that boundary, as did the introduction of planning regulations and heritage listing. At each stage, there is a battle as that boundary is pushed a little way forward, and we believe that that is appropriate".[28]

Tension between the community's rights and individual's rights is key to the future use of coastal and marine resources such as fisheries, which are little challenged in English law (e.g. Appleby *et al.*, 2018). Increasing recognition is being given to partnerships which bring together public,

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[26] It is yet to be seen whether non-monetary values will be adequately factored into this potentially powerful new decision-making tool, especially when it may focus on goods and services rather than processes based on ecosystem services assessment (Everard, 2019b; Everard and Waters, 2013).

[27] The Localism Act (2008) generated debate with subsequent legal clarification: *"There has been a long-standing dialogue in English politics on the balance between property rights and community rights. Every step forward involves some compromise — some balance being struck between property rights, individual rights and the rights of the wider community… In 1948, when the Planning Acts came into being, they were seen as a huge intrusion on the ability of land and property owners to do exactly what they wanted… We are introducing a new provision that is long overdue in the eyes of many communities around the country."*

[28] Hansard, HC Public Bill Committee, 12th Sitting, cols 505 and 506 (February 10, 2011).

private and civil society, e.g. for flood and coastal erosion risk management (FCERM), which identifies the need to embed these into institutional cultures and practices, but further research is needed on bottom-up citizen-led partnerships beyond these purposes (Environment Agency, 2021). The reality of existing governance is therefore a complex range of laws, policies and institutions which overlay property rights and their complexity can limit the ability of communities to engage in decision making. The balance between community and public interest, private (individual) property rights and the increasing demand for careful resource stewardship may require re-assessment.

In summary, there is no straightforward position on whether public or private ownership rights are more or less likely to lead to better stewardship. Obligations towards the public interest are dispersed across a wide range of private owners, the sovereign state and public bodies with the powers and duties to implement legislation. Therefore, the regulatory and institutional framework requires further explanation to explore the extent to which it favours stewardship.

2.5   The Institutional Framework

Legislation spanning the land-sea interface varies to different extents inland and offshore as shown in Figure 2.3. Planning overlaps between mean high and mean low water marks, under the Town and Country Planning Act (1990) and Marine and Coastal Access Act (2009) in England. Across the UK, Local Authorities (LAs) have planning and development control responsibilities out to low water mark and the Marine Planning Authorities have the equivalent responsibilities up to the high water mark. As shown below for England, harbour authorities, the local Inshore Fisheries and Conservation Authorities (IFCA) and Environment Agency (EA) have local responsibilities for inshore waters extending into the coastal hinterland - which is similar in the Devolved Administrations. TCE span the LSI as a major land, foreshore and seabed owner.
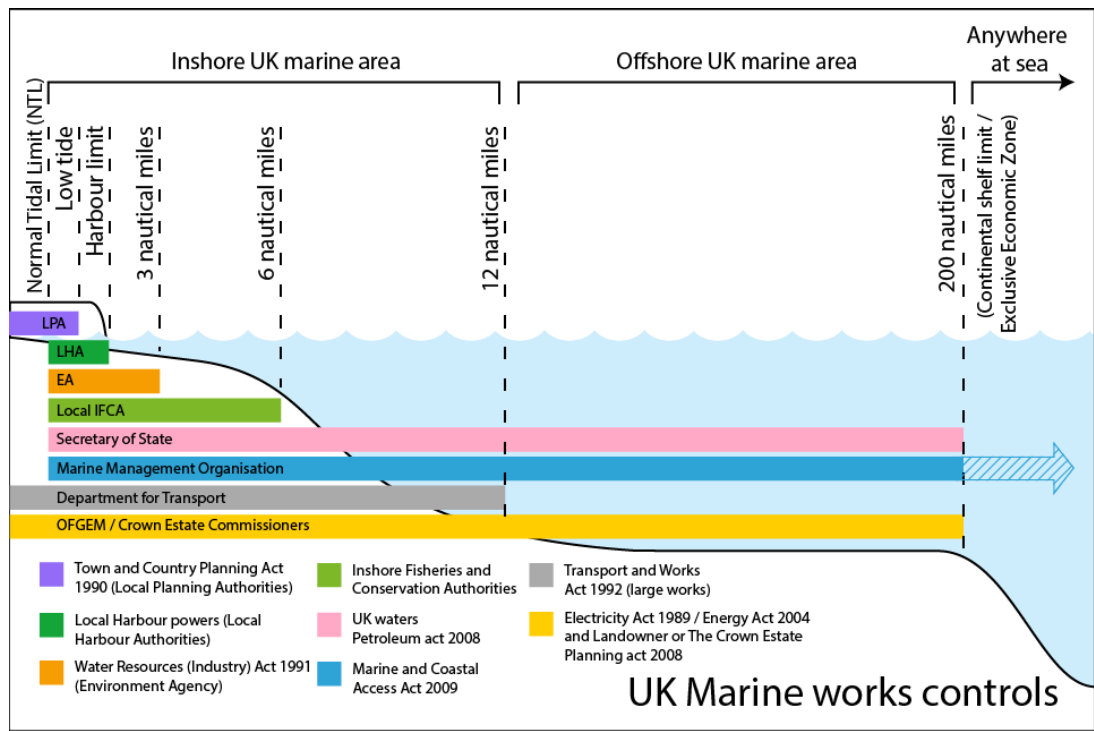
Figure 2.3 Legislation spanning the land-sea interface
Source: Marine Management Organisation (2013)
Note: earlier version showed EA responsibilities inland under the Land Drainage Act (1991).

Much of the legislation relating to sustainable use of land and sea is overseen by Defra. They have responsibilities towards good governance of our seas through High-Level Marine Objectives (Defra and HM Government, 2009), which apply to the whole of the UK through the Marine Acts.[29] Powers to implement the provisions of the Marine Acts relate primarily to marine planning, licencing, coastal access and inshore fisheries management and are devolved. In England, the Marine Management Organisation (MMO) and IFCAs carry out these functions, with the Welsh Government, Marine Scotland and Department of Agriculture, Environment and Rural Affairs in Northern Ireland, delivering the Act in the respective Devolved Administrations (DAs).

On the landward side, The Ministry for Housing Communities and Local Government (MHCLG) oversees the National Planning Policy Framework (MHCLG, 2019) and powers given to Local Authorities (LAs). In England, the Local Government Act (2000) gave local authorities the power to promote economic, social and environmental well-being within their boundaries. The Localism Act (2011) aimed to promote decentralisation by facilitating the devolution of decision-making powers from central government control to individuals and communities. A notable difference is

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[29] Marine and Coastal Access Act (2009) for England and Wales (Parliament of the United Kingdom, 2009); the Marine (Scotland) Act (UK Parliament, 2010) and the Marine Act Northern Ireland (2013); hereinafter referred to as the 'Marine Acts' which are delivered by the Devolved Administrations (DAs).

the Well-Being of Future Generations (Wales) Act 2015, which established well-being goals and duties with national indicators and milestones, a Future Generations Commissioner and Public Service Boards.

The amount of legislation influencing the governance of the marine landscape has been represented in the literature through the 'marine horrendogram,' which is well known as an attempt to demonstrate the diversity and quantity of (mainly sectoral) legislation which relates to the marine environment (Boyes and Elliott, 2014, 2015). Within the horrendogram, there are common themes around legislation filtering from the international through European to domestic law. These themes are schematically represented in yellow over the horrendogram in Figure 2.4, to illustrate how there are overlaps between areas of legislation that require integration for effective delivery to override the risk of a siloed approach. The horrendogram stops short of demonstrating how the implementation mechanisms (purple circles) relate to each other, so annotations have been added to highlight how they need to be better connected (laterally shown by arrows) and co-ordinated (illustrated by the central star and overlapping yellow petals). Without connectivity and coordination, there is less likely to be oversight for the health or stewardship of the resource.
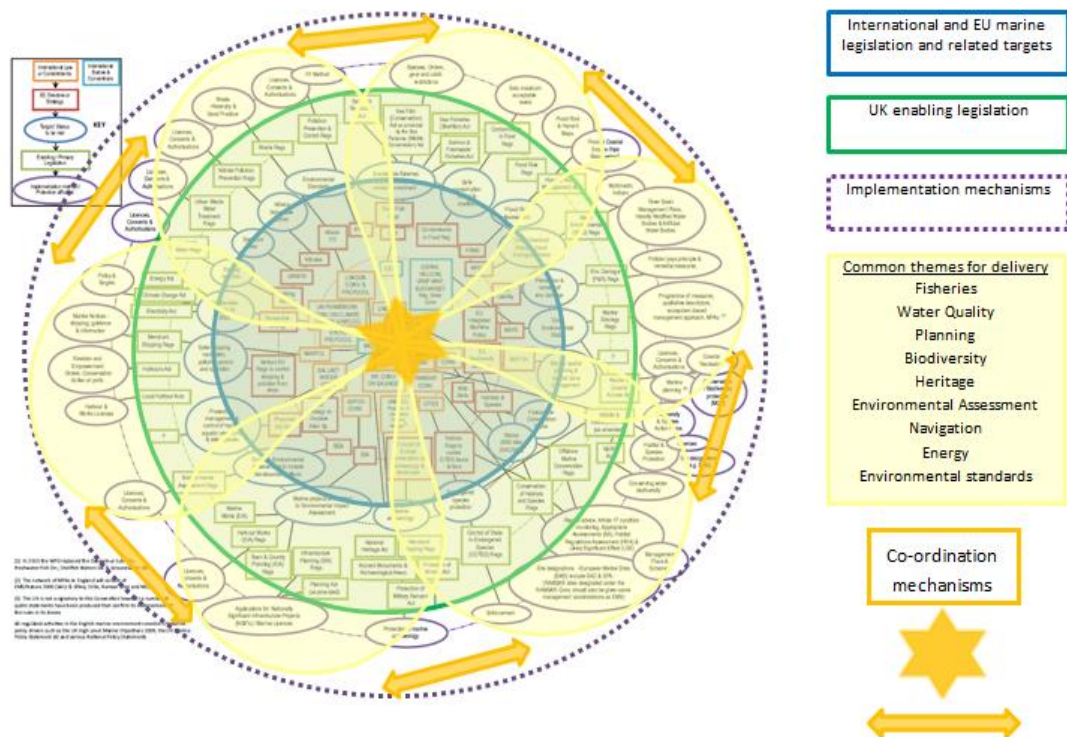
Figure 2.4 The need for co-ordination mechanisms to implement the 'marine horrendogram'
Adapted from Boyes and Elliott (2014).
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The need for stronger implementation mechanisms has recently been recognised by the marine horrendogram author and others who comment on the "*intimidating list of integration demands*" (Cormier, Elliott and Rice, 2019, p.303). Therefore, recognizing the in-principle need for horizontal and vertical integration as posited through ICZM initiatives remains a useful conceptual basis for advancing SES governance (Section 2.1). Still, practical mechanisms are needed to achieve this.

Arguably, the variety of legislation pertaining to the terrestrial environment is equally as complex as illustrated by the marine horrendogram. There is no all-encompassing framework for governance of the land and sea to reflect the situation for coastal ecosystems. No attempt appears to have been made to represent this comprehensively. Indeed, there is a well-known lack of common understanding of all legal and policy instruments relating to the UK coast. In an attempt to represent the legal and institutional landscape for the coast as comprehensively as possible across the marine and terrestrial landscape, Table 2.1 illustrates the range of key governance roles of statutory and advisory bodies with legal responsibilities for the coast in England: from central government departments and agencies with different powers and duties to the institutions tasked with responsibility for implementation. The linked policy mechanisms at the national and regional/local levels are shown, together with reference to the type and (if appropriate) the number of initiatives to support implementation. It is based on the marine horrendogram overlays in Figure 2.4, and highlights the challenges for integration and co-ordination between multiple functions, horizontally (scales) and vertically (sectors). Figure 2.5 illustrates how the challenge for integration is systemic, because responsibility for coastal communities spans Defra and MHCLG, with other marine activities which exert influence on the coast under the direction of other government departments. This helps to explain why many decisions appear to be made case by case rather than holistically through strategic oversight for the coastal ecosystem.

In addition to the regulatory and advisory duties of government bodies/committees, there are many other organisations and interests - industries, local clubs, user groups etc. keen to utilise and protect (their) coastal interests. As will be shown later (Section 3.3.2), co-ordination between local interests and government bodies/committees tends to fall on the shoulders of ad-hoc and voluntary collaborative mechanisms. The extent to which the legal and institutional landscape encourages a joint approach to governance of the coast is discussed with reference to a collaboration gap in Section 2.7. First, the existing approach to planning and policy is described for its potential to coordinate the regulatory and institutional landscape.

Legend: ● Responsible for ○ Interested in

Issue	BEIS	OGA	MHCLG	DEFRA	JNCC	CEFAS	EA	MMO	DfT	MCA	DIT	FCO	MOD	UKHO
Biodiversity				●	●	○	●	○				●		
Border security/defence									●	●	○		●	
Coastal communities			●	●			○	○	○	○				
Coastal tourism	○		○					○	○	○		●		
Communications			○					○	○	○	○	○	●	●
International law	○			●	○			○	○	●	●	○	●	○
Fishing and aquaculture	○		○	●	○	●	●	○		○	○	●		○
Mapping		●	○	●	○			○	○	●	○	○	●	●
Marine science	○			●	○						○	●		●
Marine spatial planning	○	○	○	●	○		○	●	○	●		○		○
Maritime manufacturing	●		○					○	○	○	●		○	
Maritime trade	○		○	○	●			○	●	○	●	○	○	●
Maritime business services	●		○	○				○			○		○	●
Offshore renewables	●	○	○	●	●	○	○		○	○	○	○		●
Mining	●	○	○	●	○		●			○	●			○
Natural capital	○	○		●	○	○		○			○			○
Naval capability				○							○	○	●	●
Oil and gas	○	●	○	○	○	●		●	○		○	○		○
Overseas territories and crown	○			●	●				○	○	○	●	○	●
Polar regions	○	○		○	●				○			●	○	●
Ports and infrastructure	○	○	○	●		○		●	●	○	○	○	○	
Safety/security at sea				○					●	●	○	●	○	
UK & Global climate change	●		○	●	○			○	○			○		

Figure 2.5 Government department's responsibilities and interests in different marine issues

Source: Government Office for Science (2018)

Table 2.1 Governance roles of statutory and advisory bodies with legal responsibilities for the coast in England[30]

FUNCTION	Institutional lead/responsibility		Legal Basis Symbol colour links to Figure 2.4 above	Policy/ Delivery Mechanism		
	Government Dept	Government Agency/Advisory Body		National level Symbol colour links to Figure 2.4	Regional/Local levels No link to Figure 2.4: implementation mechanisms are not shown in the marine horrendogram. See Table 3.1 for further information on items in **bold**.	Estimated number
STATUTORY RESPONSIBILITY: policy, planning and strategy						
Foreshore & seabed ownership	Crown Estate & private owners [31]		Crown Estate Act (1961)	Seabed User Developer Group (Secretariat on behalf of the CE)	Crown Estate Agents (Coastal)[32]	32
National infrastructure	BIS	Infrastructure Planning Commission (IPC)	Planning Act (2008)	National Policy Statements	Proposed development consultations	Numerous
Land planning & development control	MHCLG	Local Government Association and Local Authorities (LA)	Planning Act (2008) Planning and Compulsory Purchase Act (2004) Town & Country Planning Act (1990)	National Planning Policy Framework (NPPF) Planning Policy Statements Coastal Towns Working Group / Coastal Communities Alliance	Local Authorities Local Development Framework / Local Area Agreements / Sustainable Community Strategy etc.	333
Marine planning & licencing	DEFRA	Marine Management Organisation (MMO)	MaCAA (2009) EC Maritime Spatial Planning Directive (2012)	Marine Policy Statement (MPS)	Marine plan areas (inshore and offshore)	12
Environment	DEFRA	Environment Agency, Natural England, Historic England and others	Habitat & Species Regulations Environment Act (2021)	25 Year Environment Plan Nature Recovery Network	System Operators[33] Local Nature Recovery Strategies	14
Flood and coastal erosion risk management (FCERM)	DEFRA / MHCLG	Environment Agency, Local Authorities	Flood and Water Management Act (2010)	FCERM Strategy (2020)	Regional Flood and Coastal Committees (RFCCs), Coastal Groups (CGs) and Shoreline Management Plans (SMPs)	12 7 22
Economic development	MHCLG / BIS / HCA	Local Government Association	Local Growth White Paper (2010)		Local Enterprise Partnerships (LEPs)	38
Biodiversity	DEFRA	Natural England, Environment Agency, Forestry Commission, MMO	Natural Environment White Paper (2010)[34]		Local Nature Partnerships (LNPs)	47
Health and Well-Being	Dept of Health	Local Authorities, CCG and NHS England	Health and Social Care Act (2012)		Health and Wellbeing Boards (HWBs)[35] – statutory forums	>130
Industry	BEIS		Industrial Strategy White Paper (2017)		Local Industrial Strategies led by Mayoral Combined Authorities or LEPs[36].	6

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[30] Information taken from *Collins (2012) diagram SS by loss of regional government, with selective reference to the marine horrendogram (Boyes & Elliot, 2015)*

[31] Approximately 2000 beaches in the UK are not owned by the Crown Estate (Hubbard, 2019)

[32] TCE agents tend to be based in estate agents/chartered surveyors (e.g. Knight Frank, Carter Jonas). Source: https://www.thecrownestate.co.uk/en-gb/agent-finder/ (accessed 18.12.2021)

[33] At the time of writing, Defra are in discussion about how the System Operator role will operate in practice.

[34] Designed to establish Local Nature Partnerships, which would be equivalent to Local Enterprise Partnerships both at the regional scale.

[35] https://www.local.gov.uk/our-support/our-improvement-offer/care-and-health-improvement/health-and-wellbeing-systems (accessed 10.02.2020)

[36] https://www.lepnetwork.net/lep-activities/local-industrial-strategies/ (accessed 10.02.2020)

Flood and Coastal Erosion Risk Management (FCERM)	DEFRA	Local Lead PA	Flood and Water Management Act (2010), Coast Protection Act (1949)	FCERM Strategy (revised 2019-20)	Regional Flood and Coastal (Defence?) Committees	12
River Basin Management (RBM)	DEFRA	Environment Agency (EA)	Water Environmental (WFD) Regulations to support EC Water Framework Directive (WFD) 2000 and UK Regulations	River Basin District Committees	Catchment Partnerships	106
Shoreline management	DEFRA	EA & LA	Non-specific – enables implementation of FCERM	Shoreline Management Plans	Coastal Groups (led by groups of Local Authorities)	7
Marine environment	DEFRA	JNCC	UK Marine Strategy (2019) to support EC Marine Strategy Framework Directive	Marine Protected Areas	Management Groups	178[37]
Fisheries management	DEFRA	Individual IFCAs – MMO appointees and LA members	MaCAA Act; Fisheries Act; Sea Fish (Conservation) Act; Sea Fisheries (Shellfish) Act; Salmon and Freshwater Fisheries Act	CEFAS government advisory body	Inshore Fisheries & Conservation Authorities; Byelaws, Orders, gear and catch restrictions	10
Ports & harbours	MCA	British Ports Association	Ports Act (1991) Harbours Act, Merchant Shipping Regulations etc.	Local Harbour Acts	Port and harbour authorities	50 (approx.)
Nature conservation	DEFRA	Natural England	Habitats and Species Directives, NERC Act; Wildlife & Countryside Act (1981); National Parks & Access to the Countryside Act (1949) etc.	Conservation of Habitats and Species Regs MCZs, SSSIs, EMS, SPAs, SACs, Ramsar sites etc.	Biodiversity and Species Action Plans, Heritage Coasts, AONBs, LNRs, SNCIs etc.	
Heritage & archaeology	DEFRA	Historic England/ English Heritage	National Heritage Act; Protection of Wrecks Act	Sites of Historical Importance Protected Wrecks	Local site management	400 (approx.) 54
Recreation	DEFRA	EA and water companies	Bathing Waters & Urban Waste Water Treatment Regulations	Bathing Water beaches	Local authority & Environment Agency	400 (approx.)
Countryside & Rights of Way	DEFRA	NE and LAs	CROW Act (2000)	English Coast Path	Local authority & volunteer groups	Numerous
Climate Change	DEFRA	Various (all)	Energy Act, Climate Change Act, Electricity Act	Various (all)	Local action groups	Numerous
Planning, plans and projects	Various	Relevant authority	Planning Act (as amended), Environmental Assessment Regulations[38]:	Coastal Concordat	Proposed development consultations	Numerous

[37] Not all MPAs have management groups, particularly offshore. Source: https://jncc.gov.uk/our-work/uk-marine-protected-area-network-statistics/ (accessed 18.12.2021)
[38] Infrastructure Planning (EIA) Regs, Town & Country Planning (EIA) Regs, Harbour Works (EIA) Regs, Marine Works (EIA) Regs

2.6 Coastal Policy and Planning Context

The previous section outlined the legal, regulatory and institutional context for coastal governance in the UK. This section provides specific background to coastal policy and planning through integrated coastal zone management approaches and how this is reflected in existing practice at the local, regional and national levels.

2.6.1 Integrated Coastal Zone Management Legacy

The need for better governance of the coast has been recognised globally through ICZM (see Section 2.2). Different definitions of ICZM exist (e.g. Dronkers, 2019)[39] from which the following definition is offered:

A resource management tool or process where a range of policies and decision-making structures are harmonised to facilitate concerted action towards sustainability. It promotes an integrative, holistic approach and an interactive process to address complex planning and management issues.

Rising interest in the UK coast during the 1990s and 2000s led to investment in voluntary plans and initiatives to encourage better-integrated management at the national, regional and local levels[40]. The UK ICZM strategy promoted an integrated approach to the management of coastal areas in England (Defra, 2008; Atkins, 2003). European ICZM principles were defined (European Parliament and the Council, 2002) and influenced many European initiatives and projects (Salman and Pickaver, no date; Reis, Stojanovic and Smith, 2014)[41]. However, there is little ongoing monitoring of progress (Ballinger *et al.*, 2010; Pickaver, Gilbert and Breton, 2004; Maccarrone *et al.*, 2014) or further

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[39] ICZM definitions are discussed here:
http://www.coastalwiki.org/wiki/Some_definitions_of_Integrated_Coastal_Zone_Management_(ICZM) (accessed 03.02.2020).

[40] The 1992 House of Commons Environment Select Committee into coastal zone protection and planning recognised that the coastal zone varied from area to area and issue to issue, requiring a pragmatic approach at the appropriate level. English Nature's (now Natural England) '*Campaign for a Living Coast*' (English Nature, 2004) and *'Estuaries Initiative'* (Morris, 2008) initiated investment in policy and local initiatives. Other examples include the UK's participation in a wide range of EC projects such as the *'Atlantic Living Coastlines'* project for Devon and Cornwall which fed into the EC ICZM Demonstration Programme (e.g. Pickaver, Gilbert and Breton, 2004; Ballinger *et al.*, 2010).

[41] The principles contained in the EC Recommendation on ICZM (European Council and OECD, 1992; European Parliament and the Council, 2002) can be summarised as follows (Shipman *et al.*, 2018):
  i.   Take a broad overall perspective
  ii.   Take a long-term perspective
  iii. Use adaptive management
  iv.   Retain local specificity
  v.   Work with natural processes and respect the carrying capacity of ecosystems
  vi.   Involve all parties concerned in the management process
  vii. Gain support and involvement of relevant administrative bodies
  viii. Use a combination of instruments designed to facilitate coherence between sectoral policy objectives and coherence between planning and management.

development into strengthened policy or legislation (Gibson, 1993, 2003). A set of indicators for ICZM were developed to monitor the effectiveness of coastal projects and programmes across Europe by the European Commission (McKenna, Cooper and O'Hagan, 2008), and a Systems Assessment Framework for coastal areas gained some recognition (Reis, 2014), but ongoing reviews of ICM practice, coastal networks and partnerships is limited. ICZM remains a voluntary aspiration but its implementation is dependent on the law (Gibson, 1993a). Other terms such as the ecosystem approach have been coined within UK policy to promote holistic and integrated approaches.

Since the introduction of the UK Marine Acts (UK Government, 2009) and Brexit, there has been reduced focus on ICZM, but obligations still exist towards 'land-sea interactions' in relation to marine planning (Shipman *et al.*, 2018)[42]. There has been recent renewed focus on the coast from different areas of Government[43]. The MHCLG encouraged the establishment of Coastal Community Teams in coastal towns and seaside villages across England and by 2017 there were 148 CCTs channelling investment in coastal communities[44]. It is anticipated that attention will increase for the reasons outlined in previous sections. The UK Government's 25 Year Environment Plan (HM Government, 2018) proposed Area Integrated Plans (AIPs) which could break down silo's in decision-making (Waite, 2019). The momentum in UK Government towards the coast is experiencing some resurgence, through:

- The Marine Pioneer projects in North Devon and Suffolk which have trialled a new local governance model across land and sea (Lannin, 2021 p137).
- Wider policy agendas such as 'levelling up' are now being driven by MHLUP (formerly MHCLG) bringing attention towards the coast for social and economic purposes.
- There are many non-statutory initiatives or guidance influencing policy towards the coast, such as Local Nature Strategies driven by Local Nature Partnerships and Industrial Strategies driven by Local Enterprise Partnerships.

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[42] The UK Marine Acts were designed to pre-empt and deliver the requirements of the EC Maritime Spatial Planning Directive (European Parliament and Council of the European Union, 2014). In 2011-2013, when the European Commission were drafting the Directive on Maritime Spatial Planning and Integrated Coastal Management, the UK representatives actively sought to remove ICZM from the Directive (due to perceived issues over subsidiarity) and succeeded (Rhona Fairgrieve *pers.comm.* 2012). ICZM remains in the background of European environmental and maritime policy for land-sea interactions[42] but the level of policy attention towards ICZM has diminished in recent years, leaving the primary focus in Europe around the Mediterranean Sea (Shipman, 2013).

[43] UK Government Office for Science in their report 'Foresight – Future of the Sea' presented cross-Government approach which concluded on the case for coordination within government, within industry, within science and between them. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/706956/foresight-future-of-the-sea-report.pdf (accessed 18.12.2021)

[44] "A Coastal Community Team is a local partnership consisting of the local authority and a range of people and business interests from a coastal community who have an understanding of the issues facing that area and can develop an effective forward strategy for that place. The Team should include a range of local stakeholders and have broad support" (Coastal Communities Alliance, 2018). Source: https://www.coastalcommunities.co.uk/coastal-community-teams/; https://www.coastalcommunities.co.uk/wp-content/uploads/2018/06/ccts-january-2017-map-1.pdf (accessed 16.12.2019).

- The Environment Act (2021) lacked any specific focus on the coast, but effectively replaces EU policy towards the coast through the Marine Strategy and fisheries management.
- The Environment Agency led a programme of investment to 'Champion Coastal Coordination (3Cs)' in 2021-22.

The increasing use of 'natural capital' methodologies, marine planning and pressures on the coast may provide a basis for re-focusing attention on the coast (Bradshaw, 2018) but *"any new policy response is complicated by the fact that coastal communities' diversity means that there is unlikely to be any 'one size fits all' response"* (Depledge *et al.*, 2017, p.4). Stojanovic, Ballinger and Lalwani (2004), suggested that of the factors identified to achieve ICZM, participation emerges as the most cited. This and the broad and systemic approach offered by the ICZM principles, suggest the need to consider the value of participatory engagement mechanisms (PEM) to support collaborative coastal governance (which we will turn to in the next chapter).

2.6.2 Marine and Terrestrial Planning: Land-Sea Interactions

With over one hundred years of terrestrial planning and just a decade of marine planning in the UK, there are differences in the maturity of the planning processes which meet at the coast. There are also differences in their scale, between local land planning and regional marine planning. UK Government policy continues to refer to ICZM as a mechanism to promote alignment between marine and terrestrial planning, from both perspectives:

- From the terrestrial planning perspective, the National Planning Policy Framework (NPPF) offers connectivity through taking account of the UK Marine Policy Statement (MPS) and marine plans in coastal areas: "*Integrated Coastal Zone Management should be pursued across local authority and land/sea boundaries, to ensure effective <u>alignment</u>* [my emphasis] *of the terrestrial and marine planning processes"* (Ministry of Housing Communities and Local Government, 2019).
- From the marine planning perspective, the MPS recognised the physical overlap of plan areas between high and low water and suggested that: "*This overlap ensures that marine and land planning will address the whole of the marine and terrestrial environments respectively, and not be restricted by an artificial boundary at the coast. The geographic overlap between the Marine Plan and existing plans will help organisations work effectively together and ensure that appropriate <u>harmonisation</u>* [my emphasis] *of plans is achieved*" (HM Government, 2011 para 1.3.3, p. 9).

Therefore, the policy areas rely on a physical overlap to encourage alignment/harmonisation across the land-sea interface (LSI). The MPS gives explicit reference to ICZM:

> "*The coast and estuaries are highly valued environments, as well as social and economic assets. The UK Administrations are committed to ensuring that coastal areas, and the activities taking place within them, are managed in an integrated and holistic way in line with the principles of Integrated Coastal Zone Management*" [my emphasis] (ibid. para 1.3.5 p.9).

Emphasis is placed on the marine planning authorities (MMO, Marine Scotland, Welsh Government, DoENI) to drive integration between organisations.[45] The High Level Marine Objectives (HLMOs) which apply to all Marine Protected Areas also cite the use of ICZM as a tool to aid delivery.[46] The NPPF, MPS and HLMOs present the most recent, relevant and specific reference to coastal policy in the UK, but little explanation is offered for *how* this is to be achieved.

The marine planning process is designed to encourage integration and co-ordination between sectors to improve sustainability and has achieved this to some extent (Gilliland and Laffoley, 2008; Carr, 2017; Frazão Santos *et al.*, 2018). However, the reliance on overlapping plans (see Figure 2.6 opposite) and policy obligations towards the coast are

Figure 2.6 The overlap between marine and land planning
(Source: Defra (Stephen Collins) 2013)

beginning to be questioned in relation to the effective implementation of marine plans (e.g. Kidd, 2019b; Slater and Claydon, 2020).

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[45] "*In developing, monitoring and implementing a Marine Plan, the marine plan authority will work with a wide range of planning and regulatory organisations with direct and indirect involvement in marine planning, at the national level and/or for individual marine plan areas. This will include the existing work of the terrestrial planning community, complemented by the role of the marine plan authority, in particular in relation to Integrated Coastal Zone Management (ICZM)* [my emphasis] (*ibid* para 2.3.1.4).
[46] "*Marine, land and water management mechanisms are responsive and work effectively together, for example through integrated coastal zone management and river basin management plans'* (*ibid* Box 1 p.10).

The term "Land-Sea Interactions" (LSI) was adopted in the EC MSP Directive (European Parliament and Council of the European Union, 2014), recognising that effective maritime spatial planning cannot occur unless consideration is given to the interface between the terrestrial and marine environment. In particular, Recital 15 promotes an integrated and strategic vision and Article 7 requires that: *"In order to take into account land-sea interactions…Member States may use other formal or informal processes, such as ICZM".* Yet public bodies (such as LAs) in the UK must only 'have regard' to the appropriate marine policy documents. In addition, marine plans are not as legally binding as planning requirements are under the UK's town and country planning legislation. It is not clear what the cross-referencing of policies to ICZM is achieving.

This position has been cited as a new form of 'coastal squeeze' (Shipman and Stojanovic, 2007) as it represents a powerful competing priority (Crawford, 2019). The overlap and policy requirements to seek compatibility, alignment and harmonisation fall short of providing the mechanism for greater land-sea integration necessary for more effective planning and management (O'Hagan *et al.*, 2019), especially when there is a huge difference in scale[47]. In addition, marine plans do not currently have a spatial (or temporal) element, rather present a suite of policy proposals for each plan area to guide planning (and licencing). At the time of writing (2022), all marine plans are in their first iteration (except for Scotland, revised in 2018) and it remains to be seen whether they will progress integrated management or the extent to which LAs and coastal communities will be engaged in implementation[48].

Stakeholder engagement processes for consultation on marine plans and the designation of marine protected areas, report mixed experiences of how the coast and coastal communities are engaged in the process (e.g. Wood *et al.*, 2008; Jones, Lieberknecht and Qiu, 2016; Pieraccini and Cardwell, 2016; Slater and Claydon, 2020). The need to acknowledge the land–sea connection for marine planning is recognised (Agardy, Davis and Sherwood, 2011; Frazão Santos *et al.*, 2018) but - as for ICZM - implementation is proving challenging (Jay, Ellis and Kidd, 2012; Dworak, 2016; Keijser *et al.*, 2018; Shipman *et al.*, 2018). It is yet to be seen whether the voluntary framework for ICZM, which emerged in countries such as the UK, will aid the implementation of LSI. Guidance appears lacking - the duty towards it exists in policy but the enabling powers, or capacity to incentivise it, are vague. It

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[47] LSI has to a large extent replaced reference to ICZM in relation to planning, but the scale of marine plans is larger than land planning, especially in Wales and Northern Ireland, where one Marine Strategy covers the whole country's coastline. Scotland is taking a more devolved approach through piloting Marine Planning Partnerships in several regions. England is divided into eleven marine plan areas, six being inshore with indicative boundaries from the upstream tidal limit to 6nm offshore.
[48] Paul Gilliland at Coastal Futures conference, January 2022 suggested the MMO were considering sub-plans to help increase linkage with LAs and coastal communities. The MMO prepared a guide for LAs on marine planning in an attempt to increase engagement, but this remains the subject of some debate.

appears left to DAs, MPAs, LAs, NDPBs and ad-hoc initiatives - with limited staff capacity/mandate to monitor success. The reliance upon an overlap between the two planning systems may have inadvertently widened a gap that limits effective coastal governance.

2.7   A Governance Gap

The degree of legal and institutional complexity for management of the UK coast is well known and has been illustrated. It has been suggested that coastal governance is lacking due to the siloed approach caused by the sector-based regulatory and institutional framework, and the current policy obligations towards ICZM and LSI have been questioned. Deficiencies with the top-down, regulatory approach could be due to inappropriate legislation and the way it is enacted and/or inadequate compliance. Ad-hoc approaches including external collaboration (Batory and Svensson, 2019) may be substituting. The UK Government does not seem to have an appetite to revisit Defra's 2008 UK Coastal Strategy despite the ongoing policy commitments to ICZM and lack of evidence of its implementation (as illustrated in the previous section) "…*the ultimate reality for managing land-sea interactions is that it will have to be achieved through existing policy instruments - a recommendation to sweep away existing policy and bring in a new policy that is more 'fit-for-purpose' is not an option*" (O'Hagan *et al.*, 2019). However, O'Hagan *et al.*, recognise a need to re-think management of the coast. The deeper ownership rights, responsibilities and approach to governance may require re-assessment.

Recommendations for more integrated planning and delivery have been made in the Marine Pioneer programme (Lannin, 2021) led by the MMO, which concluded that there is a governance gap (Aisling Lannin, *pers. comm.* 2019). The abolition of regional-scale governance probably hindered coastal policy in England, but this may be returning through Area Integrated Plans (AIPs), via local or regional partnerships, which seek to address land-sea relationships and may help to construct coastal identity (Crawford, 2019).[49] The post-Brexit renewal of UK legislation and policy could present opportunities to re-frame governance arrangements for the coast.

The socio-legal approach encourages broader and deeper consideration of the challenge for better governance. The role of formal legislated and informal self-organised forms of governance to

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[49] *"Engagement with the complexity of land–sea relationships remains marginalised in current national policy frameworks. 'Coast' is largely framed in terms of defensive functions and natural and cultural goods, while the complex coastal ecosystems…remain separated from wider catchments, including land-sea interactions. Possibilities for rethinking…ecological management and restoration around land-sea relationships are thus effectively excluded or marginalised."* (Crawford, 2019 p.312).

address the specific problems of coastal SES is not unique to the UK (Glaser and Glaeser, 2014). The legacy of land and foreshore ownership, property rights and the legal context helps to contextualise the existing role of property owners, decision-makers, stakeholders and coastal communities. Understanding of how they work together will be the focus of the next chapter.

2.8   Chapter Summary

Coastal socio-ecological systems provide valuable resources to people, but are facing increasing pressures from development and substantial habitat losses. They are at risk of degradation and in need of better governance. The value of the coast is well recognised, but challenges around its definition framed the problem to be researched. A socio-legal approach to the research was proposed as it presents 'open-minded' consideration of the social context in which the law operates. The legal framework was described in terms of ownership, property rights, powers and duties to protect the long term public interest. This legacy has influenced people's current relationship with the coast and is therefore an important underpinning for further investigation of governance arrangements. The regulatory and institutional framework, current policy and planning context were then outlined, demonstrating that existing governance arrangements are complex and require integration or other means of improving co-ordination across the land-sea interface. Despite a legacy of ICZM policy, there is no statutory duty to plan or manage the coast *in itself* across the LSI. Policy commitments exist but it is not clear how they are being implemented or their effectiveness. This led to the assertion that there is a governance gap.

3   COLLABORATIVE GOVERNANCE MECHANISMS

Collaborative governance literature offers a perspective for reviewing and potentially renewing approaches to UK coastal governance. As shown in Chapter 2, the legal and institutional responsibilities across the land-sea interface are complex, but there are policy and planning mechanisms in place to encourage co-operation and joint approaches. In this chapter, governance paradigms and the role of collaborative governance are described and defined with reference to natural resource management and the coast. Collaborative mechanisms for UK coastal governance are described. This includes the powers, duties and capacity for implementation enabled by the legal and regulatory framework through incentives such as the duty to co-operate, statements of common ground and the coastal concordat. The role of public participation and participatory engagement mechanisms are discussed. This leads to an evaluation of how commons theory, collective action and co-ownership models could be applied to strengthen them. This chapter starts to explore how a bottom-up approach has and may continue to play a significant role in contributing to coastal governance. This chapter supports RQ2 and O2 (see Section 1.6).

3.1   Approaches to Governance

This section takes a broad overview of governance literature to place collaborative governance in context, before applications of it are considered in relation to the UK coast.

3.1.1   Governance definition

Governance is considered to be the action or manner in which something is governed or regulated; a method of management and the process of collective decision-making and policy implementation (McMillan and Alistair, 2009). It is broader than government and includes the roles played by communities and the private sector. In a theoretical sense it refers to the actions and processes by which stable practices and organizations arise and persist (Lijun, 1998), it may operate in formal and informal organizations of any size; and suggests jointly determined norms and rules designed to regulate individual and group behaviour (Ostrom, 1990). In the past two decades, governance theories have arisen semi-independently across multiple disciplines and now the notion of governance is one of the most frequently used social science concepts in the world (Ansell, 2016). The concept applies to states, corporations, non-governmental organisations (NGOs), partnerships and associations, business relationships, project teams, and any number of humans engaged in some purposeful activity.

3.1.2   Environmental governance and the need for transformative change

As shown in Chapter 2 (Table 2.1 Governance roles of statutory and advisory bodies with legal responsibilities for the coast in England), the governance of natural resources is typically divided between different government departments at the national level and split across different agencies at the regional and local levels. Institutional arrangements are complex and the engagement of citizens is piecemeal. The current governance framework does not appear to be strong enough to bring about the resilience that is needed for the coast[50]. Incremental change will not suffice to bring about societal change at the level and speed needed; new types of governance are sought.

Discussions about governance consider institutions and their role in relation to government powers and duties. Since the 1990s the concept of environmental governance[51] has dominated professional and scholarly publications on governing the protection of the natural environment (Mol, 2018). It is a concept which helps to ensure that governance is based upon environmental principles and reflects the dispersed role of national governments and the emergence of connectivity between all, with action across society towards environmental goals. Awareness of the need for better environmental governance continues to grow in professional practice and is reflected in the literature (e.g. Newig and Fritsch, 2009; Paavola, Gouldson and Kluvánková-Oravská, 2009; Berdej and Armitage, 2016; Krasny *et al.*, 2017).

Accountability for the environment and resource use can be strengthened when stakeholders and citizens gain better access to information and decision-making through more open forms of governance (Santo, 2016). The role and relationship between government institutions: their regulatory role and duties; alongside non-governmental institutions and wider forms and ways of governing, are considered important for stewardship. There is a wide literature on governance paradigms which recognise a shift from traditional top-down, hierarchical approaches towards encompassing more bottom-up, participatory forms of governance. Governance theory offers an account of the dispersal of power beyond and within the state, challenging traditional forms of representative democracy and opening up new ways in which citizens can engage in decision-making. In 'Remaking Governance', Newman (2005) reflects on the growing importance of network

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[50] This includes coasts at risk from flooding, erosion, pollution, over-development and invasive non-native species amongst other risks. In contrast, a slow transition to habitat restoration could be part of the climate change solution by offering carbon sequestration in mudflats and saltmarshes (e.g. Hayhow, Eaton, Stanbury et.al., 2019).
[51] The International Union for the Conservation of Nature (IUCN) defines environmental governance as: "*multi-level interactions among, but not limited to, three main actors (i.e., state, market, and civil society) which interact with one another, whether in formal and informal ways…possessing characteristics of 'good governance' for the purposes of attaining environmentally sustainable development".*

and collaborative forms of governance which bring into question the centrality and authority of representative institutions. Governance has and continues to evolve to include the social and cultural, as well as institutional practices, which could be extended to transform governance (Biermann *et al.*, 2012) and meta-governance (Gjaltema, Biesbroek and Termeer, 2019) and feeds back into the evolution of institutions for collective action (Ostrom, 1990).

3.1.3 Adaptive governance for socio-ecological landscapes

In responding to the increasing challenge of environmental and resource sustainability, there is an expanding and extensive literature around adaptive management/governance of natural resources that allows for ecosystem management in fluid social–ecological landscapes and for responding to environmental feedback across scales (Folke *et al.*, 2005). Adaptive management is as an emerging from of environmental governance that is increasingly called upon in the face of the complexity and uncertainty associated with rapid environmental change (Chaffin, Gosnell and Cosens, 2014). It purports to provide benefits for governing uncertain and dynamic natural resource problems in relation to coastal management, where climate change is exerting pressure through erosion, flooding and increased storminess. However, there is little empirical research into the existence and operation of practical mechanisms or legal designs for achieving these approaches (Cameron and Darren, 2011). New governance options are extensively explored in the literature in relation to SES resilience (e.g. Olsson, Folke and Berkes, 2004; Folke *et al.*, 2005; Adger *et al.*, 2018) suggesting there is potential to apply governance approaches at the landscape scale for coastal SES more readily.

Governance of a particular space or territory is achieved in two ways: through putting in place boundaries and borders; and through categories, institutions, rules, procedures and strategies which serve to define and organise the population to be governed (Carmell, 2005). In some countries and places, governance powers have been devolved to the scale of a landscape/ecosystem, particularly for watershed management (e.g. Murray-Darling Basin, Australia (Connell, 2014). The emergence of such governance systems can be facilitated through enabling legislation, economic incentives and by bridging organizations that connect institutions across levels and scales (Folke, 2007; Peterson and Rathwell, 2012; Berdej and Armitage, 2016). Administrative boundaries often split the coast and reduce the ability for institutions to govern at a scale connected to ecosystem functions. Newman (2005, p.198) suggests the general opening up of governance through creating 'imaginary unities' which could be based on more than existing administrative boundaries, for example on people's perception of scale and governance which fits more closely with a landscape/ecosystem. Building in place-attachment can support sustainability (e.g. Raymond, Brown

and Weber, 2010; Brown *et al.*, 2019) and could be better reflected in coastal governance arrangements.

3.1.4   Other governance paradigms

The concept of collaborative governance is central to this research for the reasons which will be outlined below. Before further elaboration, it is important to highlight the literature on other 'new governance' paradigms, including:

- *Participatory governance* (e.g. Wesselink and Hoppe, 2011; Stafford, 2018) centred on the participation of interest parties in government-led processes;
- *Network governance* (Carlsson and Sandström, 2007; Keast, 2022) where power is more evenly dispersed;
- *Hybrid governance* (Armitage, De Loë and Plummer, 2012; Vince and Haward, 2017); and *polycentric governance* (Carlisle and Gruby, 2019) where the complexities of dispersed governance with networks, arrangements and partnerships move beyond the nation-state (e.g. Mol, 2018);
- The role of *boundary organisations* (Gustafsson and Lidskog, 2018) and *bridging organisations* can increase the efficiency of collaborative effort (Folke *et al.*, 2005; Berdej and Armitage, 2016);
- *Evolutionary governance* theory to consider how different governance institutions have co-evolved and understand how dependencies between current actors and objectives influence each other (O'Hagan, Paterson and Le Tissier, 2019).

There is therefore a huge body of governance literature and much could be considered relevant to the coastal context in the UK. The increasing recognition of new governance approaches (Newman, 2005; Ansell, 2016; Torfing and Ansell, 2017) in particular those which involve building on commons theory and collective action (Section 2.4.4) form the basis for this research being framed around the concept of collaborative governance.

3.2   Collaborative Governance

3.2.1   Definition and rationale

Collaboration is the process of two or more people or organisations working together to complete a task or achieve a goal (and is similar to cooperation). It involves the joint ownership of decisions and collective responsibility for achieving jointly agreed-upon objectives (Gray, 1989). Collaborative governance emphasizes shared power and joint decision making. It crosses jurisdictional boundaries

and builds its agenda and actions through consensus (Walker, 2011), beyond but still involving the public sphere. It can play a role in strengthening local governance systems, but the support and oversight role of national governments is still important as they require the political mandate to guide collaborative action on the ground (Biermann *et al.*, 2012 and others). Collaboration goes beyond information exchange and traditional consultation approaches to engage in co-design.

The term 'collaborative governance' was initially used in the education and health profession in the 1970s to generally describe cooperation across departments and disciplines in the administration of curriculums and public health services. Emerson, Nabatchi and Balogh (2011) cite earlier concepts related to it including intergovernmental cooperation in the 1960s, collaborative problem resolution, group theory, the logic of collective action (Olsen *et al.*, 2016) and the extensive common-pool resource literature (e.g. Weinstein, Hardin and Baden, 1978; Ostrom, 2000; Walters and Ahrens, 2009). It then took on multiple meanings and applications as reviewed by Ansell and Gash (2008) and has become a common term used in the public administration literature.

Collaborative governance responds to the demand for new forms of governance which are better suited to context and to influencing government action through deliberation and consensus-building among divergent and even conflicting interests (Ansell and Gash, 2008). This creates a more comprehensive approach to planning and policy implementation than government could achieve on its own (Gray and Purdy, 2018). It expands conventional government policy processes into wider areas by facilitating collaboration between the public, private and community sectors to achieve more than any one sector could achieve on its own.

The concept of collaborative governance for this research was primarily taken from Ansell and Gash (2008) who stated it would "*bring public and private stakeholders together in collective forums with public agencies to engage in consensus-oriented decision-making*". Other scholars have broadened the definition and application of the term to encompass partnerships and co-management regimes (e.g. Agrawal and Lemos, 2007), community based collaboratives (Dukes, Firehock and Birkhoff, 2011), inter-governmental collaborative structures for river basin management (Emerson and Murchie, 2010); participatory governance arrangements (Koontz *et al.*, 2004; Bingham, 2011) and use of the term in relation to the role of business partners (Kim and Darnall, 2016). Emerson and Nabatchi (2015) proposed collaborative governance regimes as "*a system of public decision-making in which cross-boundary collaboration represents the prevailing behaviour and activity*" (Emerson and Nabatchi, 2015, p.10). A more encompassing definition is offered which focuses less on consensus oriented decision-making, expressing cross-boundary collaboration for any public purpose:

"the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished" (Emerson, Nabatchi and Balogh, 2011, p.2).

Their interpretation encompasses 'multi-partner governance' which can include partnerships between the state, the private sector, civil society and the community as well as joined up government and hybrid arrangements such as public-private and private-social partnerships, co-management regimes, community-based collaborations and intergovernmental collaborative structures (ibid p. 3). Despite both the prevalence and status of collaborative governance as a method of policy-making, its study remains a loosely integrated field of largely ad hoc (and sometimes conflicting) approaches (Gash, 2017 p.213).

The definition of collaborative governance used for this research is:

A process bringing together the state, private sector, civil society and the scientific community to engage collectively in decision-making across the land-sea interface.

3.2.2   Collaborative governance applications

The literature on collaborative governance has continued to grow, particularly in recent years.[52] Recent research synthesising academic literature, policy documents and grey literature across ten European countries indicates heterogeneity and fuzziness in the way the concept is used (Batory and Svensson, 2019). The nexus between the private and public sector combine with participatory governance to describe and explain the increasing volume of public policy processes involving collaboration (Bingham, Nabatchi and O'Leary, 2005; Mitchell, O'Leary and Gerard, 2015). U.S. scholarship tends to emphasize the external dimension of collaboration rather than internal (within government) cooperation which is implied more in European applications, especially public administration scholarship and related concepts such as integrated, joined-up governance or collaborative public management. Batory and Svensson (2019) identified that the most widespread field of application is environmental policy and discovered a particular tendency for use of the term 'partnership' and 'network governance' in the UK to capture cooperative behaviour in and by government (ibid. p.30). This has been witnessed in the rise of coastal partnerships discussed in Section 3.3.2.

Similar concepts to collaborative governance have arisen to describe cross-boundary collaboration as collaborative planning (Healey, 1997); collaboration processes (Daniels and Walker, 2001);

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[52] Scopus search on "collaborative governance" 31.01.2020 revealed over 4000 citations, mostly from the past 5 years.

collaborative environmental management (Koontz *et al.*, 2004; Heikkila and Gerlak, 2006); and multi-stakeholder partnerships (Gray and Purdy, 2018). The concept has been increasingly used in a variety of literatures and in professional practice. For many working in policy with managers and communities it has come to represent *"an elixir to the 'business as usual' approach to policy-making which privileges hierarchy and order over inclusion and innovation"* (Gash, 2016, p.454). Instead, collaborative governance suggests a more creative, flexible, transparent and demand-driven orientation towards policy and program development.

3.2.3   Collaborative governance for natural resource management: the role of institutions

The expansion of community interest in governance has been fuelled in part by the impacts of environmental regulations on individual property rights as discussed in Section 2.4.2. The reach and power of those regulations has led to a corresponding demand for more local control which empowers citizens to participate as partners in governance (Firehock, 2011). Many people are turning to collaborative processes to help them improve or find solutions to complex and potentially contentious issues across a wide range of natural resource and environmental concerns (e.g. Ewel, 2001; Marshall, Blackstock and Dunglinson, 2010; Jennifer D. and Pratt, 2011; Schoon and Cox, 2018). Whether collaborative governance is driven from the bottom-up by communities wanting to engage more in decision-making, or from the top-down with governments devolving more power to the private-sector and increasing the role of non-state actors, many different types of collaborative governance mechanisms have grown over the past thirty years and are now central to natural resource management.

Institutional structures play powerful roles in making or breaking collaborative processes and creating new governance frameworks. The role of an institution is not limited to those of government or its agencies' but includes the role of bottom-up initiatives which enable governance over natural resource management such as partnership, projects or community-led associations. However, government institutions must still be recognised, as they have a key role in leadership and/or potential constraints on community-based work (Walker, 2011, p.112). Institutional design is therefore an important aspect of how collaborative governance can support participation in decision-making. The complexity of the existing institutional framework for coastal governance described in Section 2.5 poses questions about how effectively it is working and the extent to which it supports (or hinders) stewardship.

3.3   Collaborative Governance Mechanisms for the UK Coast

A variety of formal legislated and informal self-organised forms of governance are addressing the specific problems of coastal SES across the globe (Glaser and Glaeser, 2014) but there are a limited number of publications on collaborative governance for coastal resource management. Literature on governance of the coast is diverse, including for example governing the coastal commons (Armitage, Charles and Berkes, 2017); coasts for people (Berkes, 2015); governing marine protected areas (Jones, 2014); how the socio-economic valuation of the coast should be reflected in governance (e.g. Ferreira, Marques and Seixas, 2017); and others. Despite extensive discussion of collaborative governance in the literature, and frequent references to collaboration by policy makers, practitioners and scholars, there is limited debate about collaborative governance in a coastal context and only emergent references to it for the UK coast.[53] It is considered useful because of its ability to focus on cross-boundary (scale, sector) communication and offers a fresh perspective on the background ICZM policy which led to public-sector funded, bottom-up driven, voluntary initiatives to encourage partnership working (elaborated in Section 3.3.2). The evolution of coastal governance in recent decades suggests a need for more focus on collaborative governance theory and practice.

Collaborative planning (Healey, 1997) was studied for its application to the UK coast by Taussik (2001) who considered institutional design for participative, democratic governance and practical action to grasp the particularities of situated governance dynamics (Healey, 2003). Taussik (2007) called for more co-operation, co-ordination and collaboration (the 'three Cs') between planners and coastal managers. Since that time, the UK Marine Acts have introduced new legislation, including marine planning (Section 2.6.2) which places even more demand on the need for the 'three Cs' across the LSI. In addition, EC Directives have promoted collaboration for good ecological/environmental status through the Water Framework Directive (WFD) and Marine Strategy Framework Directive (MSFD) (Council, 2008; European Commission, 2012). Inadequate implementation of WFD in the UK led to a challenge raised by NGOs from which emerged the Catchment Based Approach (CaBA) with Catchment Partnerships to support collaborative delivery across all 106 catchments of England and Wales. CaBA Partnerships are demonstrating the benefits of investment in collaborative governance approaches for freshwater catchments with returns on investment of up to 3 to 1 (CaBA, 2018; Collins *et al.*, 2020). Delivery of WFD is weaker for estuaries

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[53] The author contributed to the MMOs Marine Pioneer programme (Lannin, 2021) which includes reference to collaborative governance for integrated planning and delivery (pp.33-46) including a summary of this PhD research (p.45) and input to guidance on community empowerment (p.93). Available online: https://zenodo.org/communities/marine_pioneer_sharing/?page=1&size=20 (last accessed 22.04.2022)

and coasts, as indicated by the Environment Agency (Damian Crilly, *pers.comm* 2021)[54]. The equivalent MSFD implementation through the UK Marine Strategy, is overseen by DEFRA, but without the equivalent support provided through CaBA for local delivery mechanisms. Practitioners clearly recognise the benefits of a collaborative approach[55] and collaborative governance literature has grown alongside these key milestones in legislative development for the sea, but there remains a gap between legal and policy ambitions towards transitional and coastal waters, their practical implementation and the equivalent landscape scale-approach to support delivery across the coastal SES.

3.3.1   Powers and duties to collaborate

The framework for UK coastal governance as outlined in Chapter 2 (Sections 2.4 to 2.6) illustrated a range of powers and duties within legislation, many for specific sectoral purposes and planning. Overall, there are few duties which specify the need for co-ordination to achieve an integrated approach for the coastal ecosystem *in itself*. Most of the legislation described in Chapter 2 relates to the use or management of specific assets (e.g. water quality, sediment, fishing). Current resource governance, particularly for the coast *"continues to be dominated by sectoral siloes and is resistant to strategic innovation"* (Crawford, 2019, p.312). This may be because many public bodies have been apprehensive about stepping beyond their statutory remits since they could be taken to judicial review for acting *ultra vires* (i.e. beyond their powers and duties). However, recent enabling powers encourage a more joint approach which supports more strategic, holistic approaches. The forthcoming sections will consider powers and duties available to support collaborative governance for the UK coast.

Duty to co-operate

The Localism Act (2011) introduced a *duty to co-operate*, which is designed to ensure that public bodies and statutory consultees involved in planning, work together on issues. A wide range of bodies are bound by the duty including the EA, NE, LAs, county councils and highways authorities. The actual power of these non-departmental public bodies (NDPBs) to act upon the duty is however, questioned. Local Nature Partnerships and Local Enterprise Partnerships are not subject to the duty, but LAs must cooperate with them when drawing up local plans (Bide, 2014). Government guidance

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[54] The EA are attempting to address this through various activities including the 'Championing Coastal Collaboration – 3Cs' programme of investment 2021-2022.
[55] Coastal communities turning the tide – encouraging Collaboration is key to progress. CMS News, February 2018. Available online at: http://www.cmscoms.com/?p=13050 [accessed 08.04.2020].

on the duty was withdrawn in 2018 and replaced in 2019 with guidance on plan-making by MHCLG.[56] This planning guidance enables two or more local planning authorities to prepare a joint local plan (e.g. to address cross-boundary issues) and enables the formation of a joint planning unit and voluntary joint committee structure.[57] Powers also exist for the Secretary of State to create a statutory joint committee which would be the decision-maker and take forward a joint local plan. The guidance also includes guidance on 'maintaining effective cooperation' between local plan and marine plans[58].

There is evidence of the duty to cooperate being used to ensure LAs work constructively with their neighbouring authorities (Bowes, Planning and Law, 2020), but it is not considered an adequate substitute for proper strategic planning. Although good practice is emerging, it is largely being carried out on a voluntary basis and appears limited in its overall implementation power (Holland, 2016). The implications of this for coastal planning and management are important because in theory, the duty could require LAs to jointly plan for a coastal SES with neighbouring local authorities and other public bodies including marine plan authorities. However, there appears to be no commonly or consistently reported application of the duty to the land-sea interface or coastal/estuary areas.

There are also cooperation duties for flood and coastal erosion risk management (FCERM) under Section 13 of the Flood and Water Management Act (2010). Risk Management Authorities (RMAs) are required to cooperate and are given powers for sharing information where this is for the purpose of fulfilling their duty to co-operate. RMAs and coastal protection authorities may also arrange for a FCERM function to be exercised on its behalf by another RMA. Such arrangements can be formalised through a Public Sector Cooperation Agreement (Environment Agency, 2018) which in this context are for 'internal' collaboration purposes (between public bodies).

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[56] Available at: https://www.gov.uk/guidance/plan-making (last accessed 22.04.2022)

[57] Section 28 of the Planning and Compulsory Purchase Act 2004 enables 2 or more local planning authorities to agree to prepare a joint local plan. This can be an effective way of planning for an area's strategic priorities, addressing cross-boundary issues through the duty to cooperate , and sharing specialist resources and reducing costs (e.g. through the formation of a joint planning unit, sharing of evidence base work or examination costs). Joint plans may also offer a more strategic framework across the joint area, setting the framework for future plans. Preparation and adoption of joint local plans may be overseen either by the individual authorities involved or by a voluntary joint committee structure. Powers also exist for the Secretary of State to create a statutory joint committee, which would be the decision maker in relation to such matters as specified. Section 29 of the Planning and Compulsory Purchase Act 2004 enables local planning authorities to form a separate joint planning committee to take forward a joint local plan. This is a more formal step toward joint planning, with the respective local planning authorities delegating appropriate plan making powers to the Joint Committee. Where a joint local plan exists, individual local planning authorities can subsequently prepare one or more local plans containing non-strategic policies and designations/allocations. Such local plans should be consistent with the strategic policies, unless there is specific justification for a variation. (Paragraph: 005 Reference ID: 61-005-20190315 Revision date: 15 03 201)

[58] "Strategic policy-making authorities are required to cooperate with each other, and other bodies, when preparing, or supporting the preparation of policies which address strategic matters. This includes those policies contained in local plans… spatial development strategies, and marine plans [my emphasis]"

Statement of common ground

A statement of common ground is a written record of the progress made by strategic policy-making authorities during the process of planning for strategic cross-boundary matters (Planning Act, 2008)[59]. It documents where effective co-operation is and is not happening throughout the plan-making process, and is a way of demonstrating at examination that plans are deliverable over the plan period, and based on effective joint working across local authority boundaries. In the case of local planning authorities, it also forms part of the evidence required to demonstrate that they have complied with the duty to cooperate. Marine plans as well as terrestrial plans are required to prepare a Statement of Common Ground to help manage strategic planning matters across political boundaries and strengthen the duty to cooperate to maximise the effectiveness of a local plan and marine plan (Holtby, 2021). An example exists in the Solway Firth where Marine Scotland and the MMO have agreed to produce a joint plan across the estuary's administrative boundary.[60] By contrast, the Welsh Government and MMO have not agreed to a joint plan for the Severn Estuary between Wales and England, instead preferring to 'seek to ensure compatibility' between two plans. This is challenging for implementation considering the estuary is one ecosystem.

UK governance guidance on plan-making recommends governance arrangements for maintaining effective cooperation processes (which includes marine plans) and suggests scope to plan and prepare policies based on functional geographical areas, based on demonstrable cross-boundary relationships.[61] River catchments or landscape areas are recognised as possibly a more appropriate basis on which to plan than individual local planning authority, county, or combined authority areas.[62] This policy framework offers significant scope to embed a more flexible approach to planning across the land-sea interface. The enabling of joint committees at a geographic scale

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[59] Section 37 of the Planning Act (2008): "A statement of common ground is a written statement prepared jointly by the applicant and another party or parties, setting out any matters on which they agree. As well as identifying matters which are not in real dispute, it may also be useful for a statement to identify areas where agreement has not been reached"

[60] Section 28 of the Planning and Compulsory Purchase Act 2004 enables two or more local planning authorities to agree to prepare a joint local plan. Paragraph: 005 Reference ID: 61-005-20190315. Source: https://www.gov.uk/guidance/plan-making#maintaining-effective-cooperation (accessed 21.12.2021)

[61] Available on the Gov.UK website at: https://www.gov.uk/guidance/plan-making#maintaining-effective-cooperation (last accessed 22.04.2022).

[62] Ibid. "The statement will need to cover the area which strategic policy-making authorities and public bodies cooperate during plan-making. This will depend on: the strategic matters being planned for, informed by a review of the matters affecting the area and early engagement with neighbouring authorities, communities and other key stakeholders; and; the most appropriate functional geographical area to gather evidence and develop policies to address these matters, based on demonstrable cross-boundary relationships. For example...*river catchments, or landscape areas* [my emphasis] may be a more appropriate basis on which to plan than individual local planning authority, county, or combined authority areas. Cooperation between these different tiers (counties, districts and combined authority areas) may be needed. Authorities may well work in different groupings to address different strategic matters. Authorities should be pragmatic in determining the areas". (Paragraph: 017 Reference ID: 61-017-20190315. Revision date: 15 03 2019). Source: https://www.gov.uk/guidance/plan-making#maintaining-effective-cooperation (accessed 21.12.2021).

beyond administrative boundaries opens the door to governance bodies which more closely oversee management at a SES scale.

The coastal concordat

It could be argued that recent progress towards integration has been made through the Coastal Concordat (Defra, 2013, 2014; HM Government, 2018a) despite slow adoption by LAs (Lannin, *pers. comm.* January 2020). It encourages co-operation between institutions (i.e. LAs, MMO, EA and NE), with the aim of streamlining the licencing/development control process in coastal areas. It demonstrates a form of collaborative governance *within* public bodies and lacks any practical obligation for participation in decision-making beyond formal consultation. This highlights the distinction between internal and external collaboration made by Batory and Svensson (2019) who propose that both are necessary for collaborative governance, but the extent to which each relies on the other is not clear:

 "…[there is a] need for further research with respect to the relationship between internal and external collaboration, for instance to indicate whether well-functioning collaborative practices among government agencies are an essential pre-condition for reaching out to non-governmental partners or, alternatively, external collaboration can at times substitute for deficiencies within the governmental sector" (Batory and Svensson, 2019, p.35).

The extent to which collaborative governance for the UK coast involves non-governmental actors and citizens beyond government bodies and their consultation processes, is discussed in the next chapter (3).

Duty towards compatibility in planning

The requirement to consider LSI in marine planning was highlighted in the previous chapter (Section 2.6.2) expressed in the Marine Acts as a duty to have regard, or take reasonable steps, to secure compatibility between marine plans and terrestrial plans. The Marine and Coastal Access Act (2009) for England and Wales (MaCAA) has provision for matters which include coastal resources: *"any plan...prepared by a public or local authority in connection with the management or use of the sea or the coast, or of marine or coastal resources, in the marine plan area or in any adjoining or adjacent area* [my emphasis] *in England or Wales, Scotland or Northern Ireland"* but in practice the requirement to 'seek compatibility' between plans[63], has been considered by marine planning

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[63] Marine and Coastal Access Act 2009 (England & Wales):
Matters to which a marine plan authority is to have regard in preparing a marine plan

authorities (MPAs) with mixed engagement of local authorities. Marine Scotland is establishing regional marine planning partnerships (MPP) to support plan development and implementation at a more local level across the LSI. The Planning (Wales) Act 2015 amended the MaCAA to include provision for strategic planning areas where they join or are adjacent to the marine planning area[64]. This duty towards compatibility in planning has the potential to strengthen governance across the land-sea interface.

The MMO prepares stakeholder engagement plans and undertakes consultation at key plan stages, but has tended to attract more strategic players than local authorities and coastal community representatives (*personal observation*). The presentation of policy statements in lengthy documents, and responses required via online platforms within defined consultation periods, present barriers to engagement. Despite worthy efforts towards engagement, public bodies and institutions' consultation processes such as this may be limited in their effectiveness, lacking mechanisms which encourage collaboration and public participation. Plans will ultimately be imposed by the Secretary of State and the success of implementation will depend upon the capacity of the MPAs and LAs to lever cross-sector collaboration and local buy-in. Mechanisms for ongoing engagement in the implementation of marine plan proposals is unclear and the national/regional approach lacks the equivalent local accountability of the terrestrial planning system. There may be other ways of strengthening compatibility between plans.

Neighbourhood Planning

Introduced through the Localism Act (2011), neighbourhood planning has effectively decentralised more power to local communities, but these powers are not (yet) extensively used to exert more control over community use and management of the coast.[65] The Neighbourhood Planning Act (2017) introduced powers for local planning authorities to agree to prepare a joint local plan 'addressing cross-boundary issues through the duty to cooperate' including the sharing of resources, evidence and costs through the formation of a joint planning unit, enabling local planning authorities

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9 (2) (b) the duties imposed by paragraph 3(1) and (2) with respect to <u>securing compatibility</u> with marine plans or Planning Act plans for areas which are related to the marine plan area.
Marine (Scotland) Act 2010:
3 (1) In preparing or amending a regional marine plan for a Scottish marine region ("area A"), the Scottish Ministers must take all reasonable steps to secure that the plan is <u>compatible</u> with any regional marine plan for any Scottish marine region which adjoins area A. (2) They must also take all reasonable steps to secure that any regional marine plan is <u>compatible</u> with the development plan for any area which adjoins area A.

[65] The motivation behind the Localism Act (2011) was recorded as returning the planning system to the people because regional plans do not get communities involved and the existing system was considered adversarial, confrontational and simply not working. Neighbourhood planning was designed to make sense for local communities. There is one reference in the Act to the coast, in relation to flood and erosion risk management (Hansard, HC Vol 521. Col.563, January 12, 2011).

to form a separate joint planning committee and delegating appropriate plan making powers to the joint committee.[66] It appears that these powers could be extended to include estuaries/inshore marine regions to leverage stronger collaboration across the land-sea interface. Presumably these powers extend to the low-water mark, equivalent to the remit of local authorities, but this does not (yet) appear to be widely utilised by local coastal communities[67].

General Power of Competence

The General Power of Competence (GPC) was introduced by the Localism Act (2011) in place of previous wellbeing powers, to give all councils (including LAs) in England, Wales and Northern Ireland, the power to do anything an individual can do, provided it is not prohibited by other legislation. Originally proposed in the 1980s the motivation was to expand the scope for local democracy …*"instead of local councillors never being completely sure what is permitted and what is ultra vires, we shall give a power of general competence to all local authorities to carry out whatever activities are not expressly forbidden by statute"* (Sear, 2012, p.1). It is intended to give councils greater confidence to work in new ways, develop new services and partnerships and promote innovation. It has encouraged a new, locally led approach and has been used for a wide range of purposes which involve partnership working (Local Government Association, 2013). It is considered to have further scope which could include extending trading beyond an authority's own area and cooperative council models, but the extent of the power and its limits are subject to legal interpretation (Sandford, 2021).

Legal leverage for ICZM

As indicated (Section 2.6.1) few countries have bound ICZM into the statute book and where this has happened (US, Australia, Canada and South Africa) there are challenges surround its implementation (Bradshaw, 2018). In commenting on the international status of integrated ocean and coastal management, Barnes (2006) argues that this is due to the idealistic nature of integrated approaches which have not been given adequate political will or capacity. The complexity of working in an integrated manner is challenging and there are no commonly accepted mechanisms, plus limited legal foundation to enforce integrated approaches. Although there is legal 'recognition' of the value

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[66] Section 28 Planning and Compulsory Purchase Act (2004)
[67] An example of where it has been used is in Tollesbury, Essex, where the Parish Council has extended its Neighbourhood Plan to the mid-line of the estuary, demonstrating a possible route to increase local community empowerment over the management of coastal space (Roger Lankaster *pers. comm,* 2019).

of ICZM (e.g. Climate Change Act, 2008)[68] there isn't enough understanding or demonstration of practical measures or adequate institutional structures to support or achieve it. Barnes (2006) acknowledges that any [ICZM] regime must operate through some form of institutional machinery, most likely of local and national government, which requires some form of reform and restructuring of government that would simply be unacceptable to the majority of states. It therefore has to be integrated into existing structures of government with their different mandates and powers and goals, which hamper integration to some degree (plus the fact that staff are usually trained in specific areas, making constructive dialogue between agencies challenging). Barnes (2006) concludes that …"*it is thus clear that more work is required to enhance the legal framework that supports and, perhaps, obligates [ICZM] and the underlying knowledge, institutional capacities and resources that constitute [it] in practice*" (Barnes, 2006, p.255). It is unclear whether there has been any further (Gibson, 1993a, 2003) substantive dialogue around legal leverage for ICZM in the UK since the UK Government (Defra) obstructed its inclusion in the European MSP Directive (Rhona Fairgrieve, *pers.comm,* 2011). In summary, cohesive legislation and policy guidance for holistic management of the UK coast remains weak (as described in Sections 2.1-2.4) therefore new paradigms for governance are sought.

3.3.2   Participatory Engagement Mechanisms

A range of mechanisms have evolved to facilitate communication, information exchange and participation in decision-making from the 'bottom-up', driven by public bodies and/or community groups. A dispersal of power has arisen enabling new forms of citizen activation and engagement (Biermann *et al.*, 2012; Vodden, 2015; Gjaltema, Biesbroek and Termeer, 2019). Participative or partnership-based strategies can be understood as both 'empowering' and as a way of structuring publics into new forms of regulation and control (Sterling, 2005). This is evidenced in watershed management and governance in different parts of the world such as the Murray-Darling Basin in Australia (Raymond, Brown and Weber, 2010; Connell, 2014) and the Danube River Basin across Europe (McInnes, 2016).

The theoretical basis for the construction of public dialogues and participative forms of society are often cited with reference to social learning (in contrast to strategic action) involved in Jurgen Habermas' (1984) theory of communicative action. Habermas provided a basis for debate about

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[68] Convention on Climate Change Article 4(1)(e) provides that "All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall: … develop and elaborate appropriate and integrated plans for coastal zone management…'. Understandably, this is qualified by a number of factors concerning the capacity of the State to act.

relations between the state, market and civil society. Governance approaches in the UK, particularly since the influence of New Labour, have moved from a more hierarchical approach towards networks, from representative to deliberative democracy and from direct control by the state to strategies designed to engage civil society (Newman *et al.* 2004). However, collaborative governance is constrained by the existing democratic channels to respond and the continued significance of the state as an actor, limiting the capacity of participation initiatives to shape policy and practice from below. Therefore the process of encouraging and strengthening participatory engagement is important if collaborative governance is to achieve its aims.

To improve collaborative coastal governance, participatory engagement mechanisms (PEMs) bring together stakeholders and communities to support integrated management of a coastal ecosystem. Long (2012) suggested that marine management required extensive stakeholder participation and a duty to implement an ecosystem approach by means of laws and policies. However, there are few mechanisms and institutional structures that facilitate cross-sectoral decision-making, and those that exist are constrained by administrative or governance structures at a national or local level which are capable of the integrated management. Long (2012) goes further "*The absence of appropriate stakeholder consultation structures may deprive regulatory measures of their legitimacy*" (Long, 2012 p.57) therefore for the existing regulatory framework to function properly, it is important that there are genuine engagement opportunities. Obligations to engage stakeholders in decision-making exist, but are often dispersed across sectoral legislation and often confined to *consultation* (rather than *participation*) processes (as indicated above). Participatory and deliberative democracy (Elstub, 2018) has had limited discussion in relation to coastal and marine governance but is growing in its potential application. The value of social networks and bridging organizations have been illustrated in relation to watershed governance and ICZM (Bodin and Crona, 2009; Peterson and Rathwell, 2012; Ernoul and Wardell-Johnson, 2013; Berdej and Armitage, 2016; Baird *et al.*, 2019).

A key challenge associated with PEMs is the investment required to sustain the collaboration. The more involved forms of participation and engagement such as co-operation, co-creation and co-delivery, require higher levels of investment of time and effort as illustrated below.
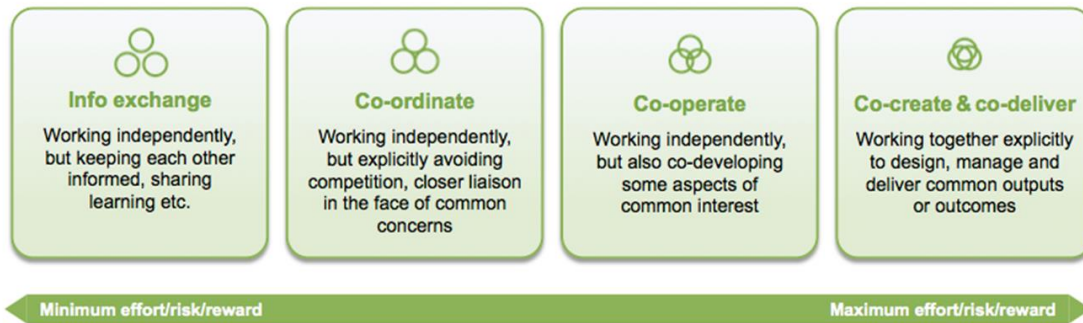
Figure 3.1 A simple spectrum of collaborative effort vs risk/reward.
Source: Richard Harris, 3KQ Consultants (2020)

Methods to measure the effectiveness of new governance are still emerging, but there is a huge body of literature reporting value in such approaches, including their ability to achieve better outcomes for sustainability based on a more holistic approach which embraces local knowledge (Dukes, Firehock and Birkhoff, 2011; Brown *et al.*, 2019).

Partnerships and joint committees

Partnerships can be defined as collaborative arrangements in which actors from two or more spheres of society (state, market and civil society) are involved in a non-hierarchical process through which these actors strive for a sustainability goal (Glasbergen, P., Biermann, F. & Mol *et al.*, 2007). They are a response to the reduced role of nation-states in the provisioning of collective goods such as water, waste, energy, etc. (Mol, 2018) and have become a means of cooperation in response to environmental and sustainability challenges.

The governance roles of statutory and advisory bodies with responsibilities for the coast in England were described above and shown in Table 2.1 Governance roles of statutory and advisory bodies with legal responsibilities for the coast in England. Developing this further, Table 3.1 Partnerships and joint committees with relevance to the UK coast at the regional and local levels illustrates partnerships and joint committees which are led by public authorities but involve private interests, stakeholders and/or engaged citizens to differing extents. It illustrates how many are driven by background legislation or policy and have a national network connecting regional and local initiatives. Some have more specific objectives than others, for example Marine Protected Areas (MPA) and Local Nature Partnerships (LNP) towards biodiversity and landscape protection; Local Enterprise Partnerships (LEP) and Coastal Community Teams (CCT) are focused on economic and/or social regeneration; and Shoreline Management Plan (SMP) Coastal Groups and Regional Flood and Coastal Committees (RFCC) primary purpose is around coastal protection (from erosion) and flood

defence. An important aspect of SMPs is the sediment cells used as a basis for coastal protection options (rather than LA boundaries)[69].
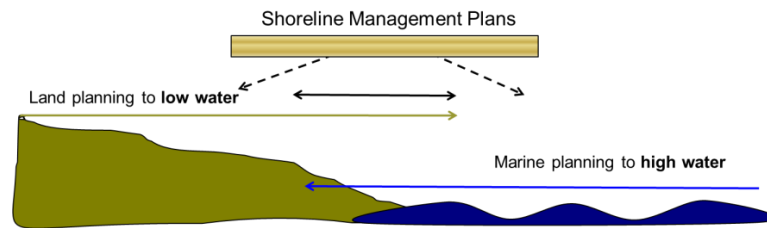
Figure 3.2 Shoreline management plans (SMPs) span the land and marine planning systems
Source: Collins (2012)

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[69] Now in their third iteration, the Environment Agency and partners are currently refreshing their approach to future SMPs, which could include opportunities for increasing coastal community engagement and considering how they work with the more formal (statutory) Regional Flood and Coastal Committees (Brian Curtis, Coastal Groups Chair, *pers comm.* 2022).

Table 3.1 Partnerships and joint committees with relevance to the UK coast at the regional and local levels.

FUNCTION	Institutional lead/responsibility		Legal Basis/Policy Mechanism	National level network	Regional/Local level networks Hosting arrangements & partners.	Governance & Accountability	No.
	Gov Dept	NDPB/ Advisory role				Legal Status *Independent Members/Trustees?*	
Coastal Community Teams (CCTs)	MHCLG		Coastal Regeneration in English Resorts (CCA Handbook, 2010) Coastal Towns Working Group	Coastal Communities Alliance (CCA) Secretariat at Lincolnshire County Council	Coastal Community Teams (CCT) led by local champions, often supported by LAs.	Boards with independent members, some established as charities/companies	350+
Marine Protected Areas (MPAs)	DEFRA	NE	Habitats & Species Directives, MaCAA & Wildlife & Countryside Act [EC Marine Strategy Framework Directive]	European Marine Site Management Groups supported by NE.	Regional project groups identified suitable sites, but ceased operation when Defra withdrew funding support (e.g. Balanced Seas, SE England). Local Wildlife Trusts and others remain active.	Management Boards comprising relevant authorities and Natural England.	175
Protected Landscapes AONBs, Heritage Coasts (HC)	DEFRA	NE	National Parks and Access to the Countryside Act (1949), CROW Act etc.	National Association of AONBs, National Parks Association		National Park Boards, AONB Partnerships	45
Catchment Partnerships (CaBA)	DEFRA	EA and delivery partners	EC Water Framework Directive River Basin District Plans	Catchment Based Approach (CaBA) working group(s)	Catchment partnerships (CaBA) hosted by The Rivers Trust, Wildlife Trusts and others	Most have legal status as Charities/Companies with independent trustees	106 (56 with TraC waters)
Coastal and Estuary Partnerships (CEPs)	DEFRA	None	Defra ICZM Strategy (2008) EC ICZM Recommendation (2002)	Coastal Partnerships Network (CPN) voluntary board members	Coastal and estuary partnerships (where they exist) hosted by LAs, Harbour Authorities, Universities and others.	Committees made up of partners from LA, NE, ports/harbours, universities and private sector in some cases. A small number have established their own legal status as charities/companies with independent trustees.	55+
Local Nature Partnerships (LNPs)	DEFRA	NE, EA, Forestry Commission, MMO	Natural Environment White Paper (2010)	Defra / NE Ecosystems knowledge network	Variety of hosting arrangements including Wildlife Trusts, LAs, Environment Agency, universities and independents.	Advisory boards – LAs with charity sector representation	47
Local Enterprise Partnerships (LEPs)	MHCLG / BIS / HCA	Local Gov Association	Local Growth White Paper (2010)	LEP Network	Local industrial strategies	Advisory boards – LAs with business interests	38
Shoreline Management Plans (SMPs)	DEFRA	EA and LAs	EA Flood and Coastal Erosion Risk Management Strategy	Local Government Association – Coastal Special Interest Group	Coastal Groups	LAs	22
Inshore Fisheries & Conservation Authorities (IFCAs)	DEFRA	MaCAA (2009)	Marine Policy Statement	Association of IFCAs (AIFCA) Secretariat	Regionally focused Committees made up from LAs and MMO appointees	Committee made up of local authority members, officers and MMO appointees	10
Regional Flood and Coastal Committees (RFCC)	DEFRA	EA	The Regional Flood and Coastal Committees (England and Wales) Regulations 2011. Flood & Water Management Act (2010)	Association of Drainage Authorities (ADA)	Regionally focused Committees made up from LAs and EA appointees (11-25)	Environment Agency, LAs and independent appointees	12
Local Nature Recovery Strategies (LNRS)	DEFRA	NE	Environment Act (2021). 25 Year Environment Plan. Net gain consultation (2019)	Nature Recovery Network (NRN) Delivery Partnership	Uncertainty at the time of writing over whether NRN will extend into coastal/inshore marine environment	Responsible authority (e.g. County Councils) LNPs and NRN delivery partners. Landscape Recovery projects to be established.	10
Landscape Partnerships			Countryside and Rights of Way Act (2000)	Heritage Lottery Fund	Often linked to AONBs	Within host body e.g. AONB Management Group: LAs, Parish Councils	12
Ports and Harbours (Statutory Harbour Authorities)	DfT	DfT, 2018)	Local Acts of Parliament, Harbour Revision or Empowerment Orders and other legislation	British Ports Association	Regional groupings such as the South West Ports Group	Individual harbour boards with local appointees whether private/trust//LA owned. Majority operate on a commercial basis.	300+

Figure 3.3 Coastal and estuary partnerships (Coastal Partnerships Network, March 2022)
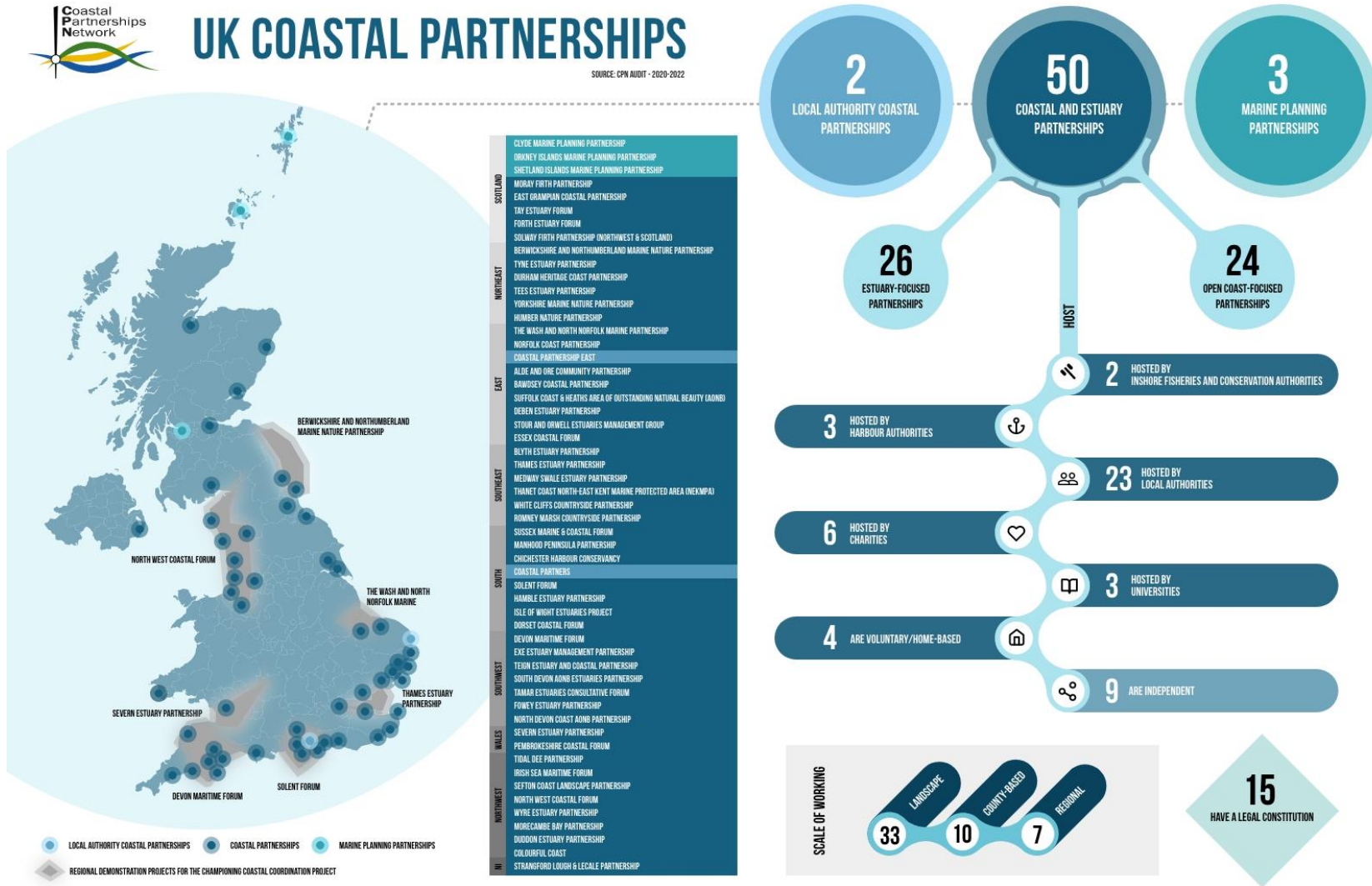
Of the partnerships/committees illustrated in Table 3.1, the RFCCs are perceived to be the only *statutory* partnership on the terrestrial side (Dominic Martin, EA *pers. comm.* 2022). On the marine side, Inshore Fisheries and Conservation Authorities (IFCA) have statutory functions bringing a wide variety of partners together, but their primary purpose is focused on fisheries management and [its] conservation. Landscape Partnerships appear to have been an initiative supported by the National Lottery Fund with no direct legal or obvious policy backing. Coastal and Estuary Partnerships were pump primed by nature conservation bodies[70], with a limited mandate apart from sustainability. For each of these partnerships, Table 3.1 illustrates the institutional lead, legal basis/policy driver (if any), national/regional/local co-ordinating network (if any), their governance/accountability and approximate number of each type of partnership (at the time of writing). Some of these partnerships identified in Table 3.1 operate across the land and sea but most are focused on the terrestrial environment. Each of these partnerships/committees has different governance and accountability models and combinations representing public bodies, civil society spokespersons and in some cases private/commercial interests.

Coastal and Estuary Partnerships

Over the past few decades a wide range of voluntary coastal and estuary partnerships (CEP) and similar initiatives have evolved at the local level to support governance (Stojanovic and Barker, 2008). Their distribution continues to fluctuate, subject partly to the definition used, but a current estimate by scale and type is illustrated in Figure 3.3. CEPs co-ordinate stakeholder engagement and public participation in decision-making and create platforms for community activity. Most originate from the momentum behind ICZM policy in the 1990s and continue to support a wide range of policy delivery. They remain informal, non-statutory, bottom-up driven initiatives hosting joint committees, providing secretariat services and convening local and strategic events for an estuary or coastal area. A range of different partners host their staff, including LAs, IFCAs, harbour authorities, universities and established charities. Ongoing research (Bradshaw and Watts, 2020) suggests that of the 50 CEPs, 15 have a legal constitution of some kind, of which 6 are entirely independent (e.g. charities/companies in their own right). Most prepare voluntary plans and/or strategies with local implementation objectives.

CEPs were critiqued over their ability to represent stakeholders and deliver in relation to ICZM when Defra were more actively promoting coastal policy (Fletcher, 2003, 2007; McGlashan, 2003;

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[70] English Natures 'Campaign for a Living Coast' and 'Estuaries Initiative'; and Scotland's 'Focus on Firths' in the early 1990s.

McKenna and Cooper, 2006; Morris, 2008; Stojanovic and Ballinger, 2009; Fletcher *et al.*, 2014; Rodwell *et al.*, 2014). Their role has not been consistently monitored, with scattered evidence of their value demonstrated through partner interviews to identify financial benefits (Entec Ltd, 2008) and for a regional partnership in NW England (Buchan and Yates, 2019). They provide services to a wide range of partners including the MMO for engagement in marine planning (Coastal Partnerships Network, 2013)[71], Coastal Groups to support SMPs, and EMS management groups, amongst other purposes[72].

Other Ecosystem Based Partnerships

Participatory engagement mechanisms exist for other natural environment 'units' including river catchments and designated landscapes (see Table 3.1) and more recently they emerged for marine regions driven by EU policy[73]. At the landscape scale, AONBs and Heritage Coasts[74] encourage management and planning decisions to take a landscape-scale approach to decision-making. Other examples include the Irish Loughs Agency (which has statutory powers straddling NI and the RoI) and other ad hoc voluntary groups such as the Gloucester Severn Estuary Stakeholders Group, with varying emphasis on the extent to which they contribute to collaborative governance and/or stewardship.

Participatory engagement mechanisms - for rivers, landscapes, coast and sea - bring together regulators, industry, scientists and citizens on an informal basis for a geographical area or ecosystem. Their successes and failures are very dependent upon the ongoing, ad-hoc and voluntary support of the public and private sector partners they engage. River catchments and protected area partnerships in the UK have statutory backing which helps to leverage more consistent public sector commitment. Coastal and marine partnerships have no statutory backing or underpinning legislation to leverage the equivalent public sector support in a long term consistent manner.

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[71] The UK Coastal Partnerships Network (CPN) proposed a way for local partnerships to support the marine planning process (CPN, 2011), which led to collaboration with the MMO with several partnerships co-hosting consultation events for marine plans (e.g. Devon Maritime Forum and the Severn Estuary Partnership for the SW Marine Plan; Thames Estuary Partnership for the East Marine Plan).

[72] The Severn Estuary is a good example as it offers a 'Severn Estuary Gateway' to several other networks and projects, including the hosting of secretariat services for the Severn Estuary Coastal Group for the SMP and the Association of Severn Estuary Relevant Authorities to support competent authorities with their EMS monitoring and reporting. Further information available at: http://www.severnestuary.net/ (accessed 21.12.2021).

[73] Examples include the Irish Sea Maritime Forum, Celtic Seas Partnership and the North Sea Maritime Forum (in abeyance). Others have been time-limited based on EU funding initiatives e.g. for the English Channel. There is no formal framework, funding or steady financial support from the public sector, and most are run on voluntary initiative by universities, charities and the private sector

[74] Heritage Coasts (England) were established to conserve the best stretches of undeveloped coast in England https://naturalengland-defra.opendata.arcgis.com/datasets/heritage-coasts-england/explore?location=51.351382%2C-2.076742%2C7.69 (accessed 21.12.2021)

3.4   Commons Approaches and Collective Action

Political theory suggests that true engagement and ownership of decisions may only be possible where more legitimacy is given to the bottom-up participatory approach. Some of the mechanisms for collaborative governance reviewed above, indicate movement towards a more commons-based approach to governance. Commons approaches have been rediscovered in contemporary scholarship and offer an important underpinning for collaborative governance. They illuminate cooperative management principles as a counterpoint to conventional economics and its growth imperatives…offering a natural vitality conducive to environmental (and social) well-being (Weston and Bollier, 2013). The rules for collective action assume that when the users of a common pool resource organize themselves to devise and enforce some of their own basic rules, they tend to manage local resources more sustainably than when rules are externally imposed on them (Ostrom, 1990, 2000). The modern-day approach to environmental regulation arose to curb the risk of over-exploitation, but difficulties with its complexity, delivery and enforcement may be behind an expansion of community interest in environmental governance based on commons theory. There is growing demand for more local control of resources, with citizens empowered to participate as partners' in governance and move away from top-down regulatory control. In part, this could be a response to recognising the need for governance which secures the long term public interest. As shown in Figure 3.4, the key components of the socio-ecological system include the resource and governance systems (which have been described for the coast in Chapter 2). The key point illustrated is that interaction between users and resource *units* is influenced by the governance system and is key to determining outcomes.
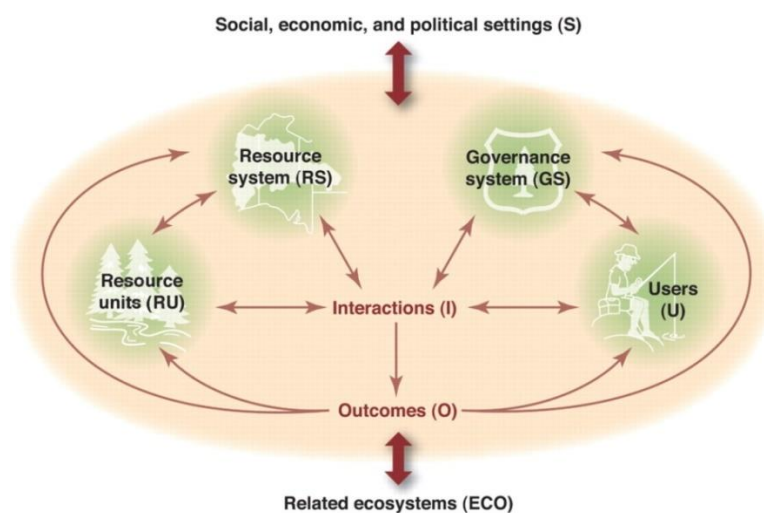
Figure 3.4 A general framework for analysing the sustainability of socio-ecological systems (SES).
From: Ostrom, E., 2009. A general framework for analyzing sustainability of social-ecological systems. *Science*, *325*(5939), pp.419-422.

Examples of collective action in common pool resource management are increasingly evident[75] and illustrate how law can operate in the background in a more innovative way than top-down regulation, with supportive institutions and rules emerging from the bottom-up. Improvements in collaborative governance; co-ordinating the actions of public bodies with strong(er) stakeholder representation through participatory engagement, warrants further investigation. Experiments in ownership of the commons usefully frame the stewardship concept:

"*When ownership rights are in the hands of those whose self-interest depends on the health of the forest, the fish, and the land, they have a natural tendency towards stewardship*" (Kelly, 2012, p.106).

3.5   The Potential for Collaborative Governance to Improve Stewardship

Recognition of the coast as a unique SES to be managed holistically and its resources shared equitably between people, are limited. There is no obvious management unit or ecosystem boundary for the coast, as there may be for a mountain range, a woodland, a catchment area or a river. The coastal ecosystem is rarely seen as a whole, with regulatory, monitoring and compliance standards typically based on specific indicators (e.g. water quality, fish catches, habitats and species occurrence) rather than the overall health of the ecosystem. Sediment cells (see Figure 3.2) forming the basis for SMP groups, and CEP's geographical basis, are perhaps the closest offering.

Currently, decision-making over the use of coastal space and resources is often undertaken on a project, site or case-by-case basis, with limited application of strategic planning or cumulative effects assessment[76]. The assessment of environmental impacts from development decisions is limited to narrow timescales for public consultation, which constrains engagement across sectoral interest groups and limits engagement with coastal communities and their local knowledge. With new development opportunities emerging (such as renewable energy and aquaculture) there is a need to increase accountability to stakeholders and update approaches to resource management to emphasise stewardship (Armitage, Charles and Berkes, 2017). A re-focusing of attention on coastal governance could help to resolve pressing and increasing challenges and involve coastal communities in the process.

Recent evolution of UK Government policy and investment suggests there is scope to take a more integrated, collaborative approach to coastal governance. Collaborative governance mechanisms

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[75] Examples such as the Maine lobster fishery in the United States or the Scottish conservation credits scheme for cod recovery which involved many stakeholders in its design and delivery (WWF Scotland, 2008).
[76] The Planning Inspectorate (2015) Cumulative Effects Assessment Advice Note. Bristol: The Planning Inspectorate.

include the duty to cooperate, partnerships and joint committees are evidence of this. The case has been made to diversify governance of river catchments[77] through CaBA, and the equivalent case for Coastal and Estuary Partnerships is beginning to be made by the EA and other NDPBs through the 'Championing Coastal Coordination' programme[78].

The dynamic nature of the coastal environment together with its multitude of interests and uses, therefore puts into question whether traditional and hierarchical forms of governance are adequate to meet the challenges ahead. Statutory obligations may be limited in the extent to which they encourage stewardship. Non-statutory activity tends to be more engaged with society, raising awareness of problems and mobilising voluntary effort towards stewardship through property owners, industries, local clubs, user and interest groups keen to use and protect (their) coastal resources. Current governance arrangements lack emphasis on their role in decision-making. Participatory engagement mechanisms can bring together owners, regulators, industry, scientists and citizens on an informal basis for a geographical area or ecosystem. However, these participatory approaches to decision-making are not consistently supported, due to a lack of (reported) evidence of the benefits and the reduced allocation of public money to non-statutory processes (e.g. McKenna and Cooper, 2006) especially in the era of ongoing austerity. Collaborative and adaptive forms of participatory governance, encouraging partnership working and involving coastal communities more in decision-making, are showing benefits (Entec (UK) Ltd, 2008), but are limited in their effectiveness (Fletcher, 2003; McKenna and Cooper, 2006). This research will therefore explore how decision-makers, stakeholders, user groups and coastal communities engaged in current governance arrangements consider the role of collaboration now and in future. The argument for how collaborative governance mechanisms, including PEMs could lead to stewardship will be elaborated further in Chapter 4.

3.6 Chapter Summary

Collaborative governance has gained increasing attention in the literature and in professional practice over the past ten years. New forms of governance in recent decades have seen the role of

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[77] The Catchment Based Approach (CaBA) has encouraged the Environment Agency to invest in partnership working which has brought about multiple benefits. In 2017-18 they reported over 27,000 primary stakeholders and over 14000 volunteers and citizens engaged in 452 projects tackling river catchment related issues. For every £1 directly invested by the Government, CaBA Partnerships raised £6.50 from non-governmental funders including the EU, Lottery, water companies and others (CaBA Benefits Assessment Working Group, 2018, p.17).

[78] The Championing Coastal Coordination (3Cs) initiative is a programme of work that is being led by the Environment Agency with support from Natural England (NE), the Marine Management Organisation (MMO) and the Association of Inshore Fisheries and Conservation Authorities (IFCAs). See: https://consult.environment-agency.gov.uk/fcrm/championing-coastal-coordination-3c-s/#:~:text=The%20Championing%20Coastal%20Coordination%20(3Cs,and%20Conservation%20Authorities%20(IFCAs).Accessed 14.12.2022.

the public sector reducing alongside the increasing engagement of the private sector and citizens. Mechanisms for collaborative governance exist for the UK coast including the duty to cooperate, the coastal concordat and planning policy. Delivery is supported on an ad-hoc basis by PEMs such as CEPs, but they are not formally recognised or endorsed as delivery mechanisms for ICZM or by any current UK coastal policy. Other partnerships and joint committees with formal status, have potential to embrace wider coastal interests, such as CaBA partnerships, SMP coastal groups, RFCCs, IFCAs, European Marine Site management groups, landscape partnerships etc. However, the extent to which they demonstrate collaborative governance is not well reported or understood.

Renewed momentum is emerging for governance based on shared ownership, collective action and a 'commons approach'. Collaborative governance mechanisms for the coastal SES require further research, to consider how existing and/or new mechanisms could be enhanced through top-down support and/or bottom-up facilitation of public engagement in decision-making which could support coastal stewardship.

4   STEWARDSHIP: SOCIO-LEGAL OPTIONS

Chapter 4 begins with a review of the concept of stewardship including general definitions and applications of the term, set alongside the prevalent sustainability paradigm in coastal governance. The origins and current-day use of stewardship approaches for natural resource management are indicated. The chapter presents the case for considering other routes to stronger engagement in decision-making through three socio-legal options: building on partnerships and joint committees (described in the previous chapter); furthering trusteeship through charity law and the public trust doctrine; and/or achieving legal standing through guardianship. This chapter builds on the socio-legal background provided in Chapter 2, further supporting RQ1 and O1 (see Section 1.6) to explore socio-legal options which could encourage stewardship.

4.1   The Stewardship Concept

The Oxford Dictionary of Law (7th ed.) defines stewardship as the job of supervising or taking care of something, such as an organisation or property including responsible stewardship of our public lands (Lexico, online). The concept is often associated with Christian interpretations of God having ownership of all things[79] with man as stewards given 'responsibility to look after and take care of this world (Christianity.com, 2020). In the New Testament, the meaning of our English word 'stewardship' is associated with the role of manager, foreman, administrator, steward or governor. Sir Mathew Hale, an influential barrister in the 1600s, was the first historical figure to explicitly apply the language of stewardship to the natural world.

Recent scholarship has dissociated the stewardship concept from its theological basis to place it on a more secular foundation which has proved particularly attractive to tribal communities asserting biocultural rights (Bavikatte, 2014). Stewardship is suggested as sacrificial service for the common good (Whelchel, 2012) and puts humanity in a position of trust with respect to nature (Attfield, 2015). Stewardship may not be considered as a substantive moral doctrine in itself, but is an instrumental concept based on altruism, compatibility with human needs and an *"ecologically informed appreciation of the circumstances of justice"* (Lucy and Mitchell, 1996, p.597). Worrell and Appleby (2000) propose a definition of stewardship which distinguishes it from other familiar concepts such as sustainable development, management, conservation and preservation:

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[79] "In the beginning God created the heavens and earth" (Genesis 1:1)

"*Stewardship is the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society*" and if a religious interpretation was required the phrase "*and ultimately to God*" can be added (Worrell and Appleby, 2000, p.2019).

In modern legal practice the term is used in relation to the countryside, environmental stewardship schemes and in relation to financial trusts. Legal interpretations of a steward suggest a man appointed in the place or stead of another, such as the Lord of a Manor. In old English law a steward is referred to as 'an officer who was invested with various powers (among others, to preside on the trial of peers)' and in Scotland 'an officer of the highest dignity and trust' (Black's Law Dictionary, online). An 'office of steward' is still deemed to be an acceptance of an office of profit under the Crown (Lexis Library, online). Local government employees in Wales are given stewardship duties over public funds and stewardship is one of the principles governing the conduct of members. [80] The concepts and principles of stewardship are also applied in corporate settings to drive sustainable development and growth, to balance short and long term objectives amidst competing interests and elaborate on the role of steward leaders for business purposes (e.g. Cossin and Boon Hwee, 2016). The role of a steward and the stewardship concept continues to be applied, but in very varied contexts. The stewardship concept is relevant for coastal governance due to the increasing pressure on natural resources from human exploitation, as it may offer potential solutions.

Stewardship for natural resource management

The renowned environmental scientist James Lovelock suggested that "*nothing worse could befall the planet than humanity becoming or trying to be stewards or managers of it*".[81] However, in relation to the modern-day environmental movement, Lowenthal (2006) suggests that the greatest stimulus to the doctrine of future stewardship was recognition of human impact. Many protected landscapes have been designated over the past century (Wilkinson, 2019) including many marine areas in recent decades (Earll, 2018), but the effectiveness of their management is the subject of some debate (WWF, 2020). Engagement in, and ownership of, the protected status is a contentious issue. Stewardship is an especially helpful concept in the many instances where sound management - rather than absolute protection or preservation - is the objective. It can offer new ways of helping to deliver sustainability and meet conservation objectives by cultivating local responsibility, offering

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[80] The Code of Conduct of Members (Principles) (Wales) Order 2001, SI 2001/2276 states that *"Before making an order…the Welsh Ministers must consult such representatives of relevant authorities and of employees of those authorities as they consider appropriate"* . Footnote 6 refers to 'stewardship of public funds'.
[81] James Lovelock talk on Radio 3, 10 June 1992.

the potential to conserve heritage at the level of ecosystems and landscapes (Brown, 1998). It offers an alternative to the current regulatory approach to environmental protection which can distance property owners and users from taking responsibility and full accountability of their actions towards the wider landscape and future generations (Lucy and Mitchell, 1996, p.599). However, the (legal) mechanisms to achieve this are questionable – most stewardship action (in western society) is based on ad hoc, voluntary action.[82]

Current environmental standards and regulatory activity seems unable to prevent significant environmental destruction and avoid catastrophic change to the coast (Girling, 2007). The regulatory approach has resulted in planning for sustainability on the one hand and licencing-away of the resource on the other.[83] More 'middle-ground' is needed whereby public bodies, private property owners and communities collaborate over their shared, longer term interests in resource stewardship. It is questionable whether a fully market-based approach can account for the holistic and complex nature of an ecosystem, as it restricts relativity (across the ecosystem), and requires oversight (by a public or jointly accountable body) which can be constrained by administrative boundaries. Several authors have indicated a solution through a more holistic approach to property law and environmental law, considering private property not as an entitlement but as a stewardship obligation (Lucy and Mitchell, 1996; Worrell and Appleby, 2000; Reid, 2011; Reid & Nsoh, 2016). Governments are effectively property owners and stewards, therefore their rights (as well as individuals), have to be constrained by responsibilities. The powers (of government) and the rights (of individuals) need to be transitioned from property-*duty* rules to property-*liability* rules which represent constraints around the use of natural resources.

Payment for ecosystem services has potential application to support stewardship, but would need a legal framework which took into account social and economic as well as environmental aspects (Solazzo, Jones and Cooper, 2015). The current trajectory of the UK Government endorsing a natural capital approach, sustainable financing models, place-based governance (Holtby, 2021) and a net gain obligation through the Environment Act (2021), suggest opportunities for the stewardship concept.

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[82] Legal interpretations of the stewardship concept are used for natural resource management more extensively in countries with tribal inheritance claims, such as the Americas and Australia. The extensive literature debating the role of stewardship in relation to private property rights does, however, suggest that stewardship may be distinguished from other forms of property rights, as constituting a form of individual holding that is subject to overarching public duties (Gray, K. and Gray, 2009), which is relevant to common-law countries including the UK. This assertion is pertinent in a coastal context, considering the current-day imbalance between socially deprived coastal communities and second home owners, plus the important provision of open access to public parks and beaches.

[83] In relation to the performance of marine plans across the UK in their first decade, concerns have been raised about the 'tick-box' approach to licencing which gives little in-depth consideration to the plan policies (Slater and Claydon, 2020).

Stewardship and governance

Until the 1990s, there was a very limited academic literature on stewardship and governance, but it has gradually grown through the 2000s and references have doubled over the past decade, mostly in the social and environmental sciences but also in relation to business, management and economics. Fair use and governance of natural resources implies practices founded on stewardship and Lockwood *et al.*, (2010) suggest a more consistent framework for stewardship research. An analytical framework for environmental stewardship has been proposed by Bennett *et al. (*2018) which hinges on three critical elements: actors, motivation and capacity, as shown in Figure 4.1 below.
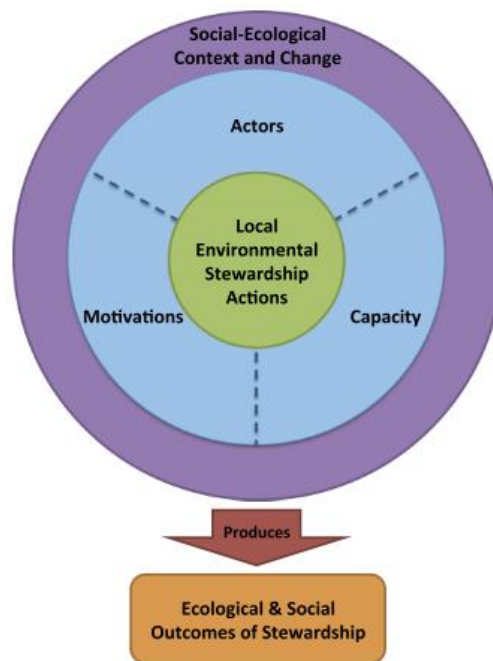
Figure 4.1 A conceptual framework for local environmental stewardship
Source: Bennett et al (2018).
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In Bennett *et al* (2018), actors are individuals, groups or networks of stewards and their 'stewardship action' refers to communities managing common-pool resources or common areas. In the context of this research, we are concerned with the socio-ecological context surrounding all three drivers: where the 'actors' constitute institutions involved in governing (as well as individuals); and the 'capacity' and 'motivations' are associated with the people (staff/volunteers) who work for/with those institutions. The capacity to steward is identified as a fundamental concern by Bennett *et.al* (2008) which includes the systems behind the institutions: "*local actors and communities can be empowered to steward local resources, or their agency can be undermined by governance processes (e.g. top-down, co-managed, or bottom-up governance) or by structural power differentials or inequalities*" (Bennett *et al.*, 2018 p.601). They refer to the resultant level of empowerment and

agency within local communities as 'institutional capital'. Legal mechanisms are identified as potential motivators by Bennett et al. (2018) and other authors, in relation to nature conservation (e.g. Soliman, 2014). It is suggested that there is a need to determine what the conventional approach can do well and where different mechanisms can produce real improvements on the current position (Reid, C.T. & Nsoh, 2016).

Landscape stewardship

Recent discussions about landscape stewardship suggest that the landscape scale is a suitable level of analysis and action for stewardship and there is a need to develop theory on collaboration at this scale (Cockburn, 2018; Cockburn, Cundill, Shackleton, Cele, *et al.*, 2019; Cockburn, Cundill, Shackleton, Rouget, *et al.*, 2019a). Cockburn *et al.*(2018) consider that the coast presents high multi-functionality and high collaborative complexity which offers some explanation for the lack of theoretical underpinning and challenges around its' governance. Several authors have recommend place-based units for addressing complex sustainability concerns, as people are more likely to engage in stewardship and participate in landscape management at this tangible scale in an action-oriented way (Bieling and Plieninger, 2017; Fischer, Meacham and Queiroz, 2017; Cockburn, Cundill, Shackleton, Rouget, *et al.*, 2019). For example, "...*implementation is dependent on effective institutional and governance arrangements…which need to operate at and/or above the landscape level and are recognised as possibly the biggest constraint in bringing about sustainable management of landscapes*" (Cockburn *et al.*, 2018, p. 12-13).

Landscape stewardship offers a means to put socio-ecological approaches to stewardship into practice and has led to a focus on multi-stakeholder collaboration and relational hubs (Bieling and Plieninger, 2017; Cockburn, Cundill, Shackleton, Cele, *et al.*, 2019b; Cockburn, Cundill, Shackleton, Rouget, *et al.*, 2019). Cockburn (2018) characterised stewardship practice through the role of local stewards expected to perform a socio-ecological balancing act, suggesting that integrated approaches which align with the contemporary socio-ecological understandings of stewardship are emerging in practice. These authors present a conceptual basis for this research on UK coastal governance and the assessment of socio-legal mechanisms which could support collaboration for stewardship at the scale of a coastal SES.

4.2   Sustainability and Public Participation

The world's coastal ecosystems are among the most complex on Earth, and they are currently being governed unsustainably (Portney, 2015). Sustainability approaches[84] have raised the environmental agenda but have not made enough overall difference to the growth agenda and its consequential damage to the natural environment. The Committee on Climate Change (October, 2018)[85] recognised significant shortfalls in existing policies and practices which do not join up, that are not fully implemented and do not engage people who live on the coast in the process of planning for future change.[86] They also suggested that new powers may be required to facilitate and ensure that a longer term planning outlook is taken. However, innovative and flexible regulatory regimes remain challenging:

"*It will take a sea change in legislative delegation of authority, agency and internal practices to make adaptive management an integral component of sustainability policy decision making for estuary and coastal resource management*" (Craig and Ruhl, 2010, p.1375).

In the move towards sustainability over the past few decades, the principles of good governance, integration and public participation have been key components - but the original Rio Declaration (Principle 4) did not enable environmental protection to be considered in isolation from development – instead it has promoted a poorly defined and implemented integrated approach which has played out in ICZM initiatives. If existing sustainability approaches are to succeed in practice, ecological sustainability or more specifically ecological integrity, would need to be at its core (Bosselmann, 2016). Bosselman promotes a greening of the systems of law and governance by adopting the notion of the eco-constitutional state where commitment to the rule of law is equal to environmental protection, both jointly underpinning and defining the state, allowing the sharing of common goods among present and future generations[87]. Key to this step is the role of public participation to build stewardship action.

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[84] Sustainability approaches include concepts such as the polluter pays principle, the use of best available science, the precautionary principle, intergenerational sustainability, transnational sustainability, accounting for ecosystem services, integrated decision making and adaptive management.

[85] Sustainable coastal adaptation in response to climate change is possible and could deliver multiple benefits "Long-term plans to adapt to changes are required everywhere, with a sharper focus on: long-term resilience; engagement and supporting communities to adapt; integration with other local priorities; and the cost-effectiveness of the policies being proposed" (Committee on Climate Change, 2018 p.12)

[86] The report 'Managing the Coast in a Changing Climate' recommend that robust adaptation and long-term plans are "*required everywhere, with a sharper focus on resilience, engagement and supporting communities to adapt; integration with other local priorities; and the cost-effectiveness of the policies being proposed*" (Committee on Climate Change, 2018, p.9).

[87] "*Such an integrating view, with its coinciding impact on non-state actors, is in sharp contrast to the traditional liberal idea of the state promoting neutrality of the state. While the liberal concept of the rule of law emphasises the well-being of humans, the ecological concept of the rule of law lays its focus on the well-being of both humans and nature in the same measure*" (Bosselmann, 2016 p.42-43).

Public participation

Public participation in environmental decision-making is a core component of the sustainability paradigm, as reflected in the Aarhus Convention (and subsequent Participation Directive I2003/35/EC)[88]. Access to environmental information has been the subject of much attention in the literature, but the extent to which it results in community participation and stewardship action is a key concern. Decision-making approaches such as environmental impact assessments (EIA) and consenting processes rely on top-down consultation approaches, with limited timescales for true engagement which can be limiting, lead to a re-centralisation of priorities and leave stakeholders left with a sense of disempowerment[89]. Holistic Impact Assessments to support decision-making could be helpful (Montini, 2016), if combined with strong incentives for long-term engagement mechanisms. Public participation is still not an integral part of conservation regulation and needs to be strengthened through formal mechanisms for the public to be involved in the process (Reid, 2011; Reid, C.T. & Nsoh, 2016)[90].

An often cited approach to participation is defined by Arnstein (1969) through a ladder showing eight degrees of citizen participation, from top-down non-participative approaches and tokenism - including consultation - to bottom-up approaches including partnerships, delegation and citizen control. Discussing the differences or compatibilities between bottom-up and top-down approaches can lead to a clearer understanding of the politics of participation (White, 1996). Other authors such as Dorcey, Doney and Rueggeberg (1994) and Pahl-Wostl (2009) indicate how increasing levels of involvement lead to more trust in decision-making. However, critics of Arnstein's ladder consider a hierarchical relationship which assumes that maximum engagement is most beneficial to be over simplistic, suggesting participation might be progressed as a collective process between all of the stakeholders involved (Collins and Ison, 2009). A 'wheel of participation' (Davidson, 1998; Reed *et al.*, 2018) provides an alternative metaphor which emphasises the legitimacy of different degrees of engagement for different circumstances and is more akin to collaborative governance. Other critiques of the above approaches have identified the need to consider context and the benefits of

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[88] In the UK these are transferred into UK law through The Environmental Information Regulations 2004 available at: http://www.legislation.gov.uk/uksi/2004/3391/contents/made [accessed 08.04.2020].

[89] By way of example, in relation to the UK Marine Conservation Zone projects De Santo (2016) demonstrated success over early and effective participation, but challenges around transparency and clarity over how the final decisions were made with Defra, national NGOs and others lacking accountability back to local/regional stakeholders. The momentum and social capital gained from a positive approach to participation was largely lost due to decision-making being re-centralised and projects closing, with the withdrawal of facilitation capacity at the local level. The MMO and devolved marine plan authorities have invested in stakeholder engagement plans and consultation workshops, but the regional scale and technical nature of policy-making with overlapping priorities, makes it challenging for coastal communities to develop a sense of ownership in the plan-making process.

[90] The Millennium Ecosystem Assessment (2005) suggested improving decision-making through the use of deliberative tools which facilitate transparency and stakeholder participation, such as public boards, citizens' juries, community issue groups, electronic democracy, focus groups etc. (Solazzo, Jones and Cooper, 2015).

different approaches, such as Hurlbert and Gupta (2015) who elaborate on a split ladder of participation based on the type of policy problem. They classify sustainable development or adaptation to climate change as unstructured problems, likely to be the subject of disagreement between participants based on differences in values/norms and science, where consensus may be out of reach, but debate on different values is important for developing trust and adaptive management, as shown in Figure 4.2.
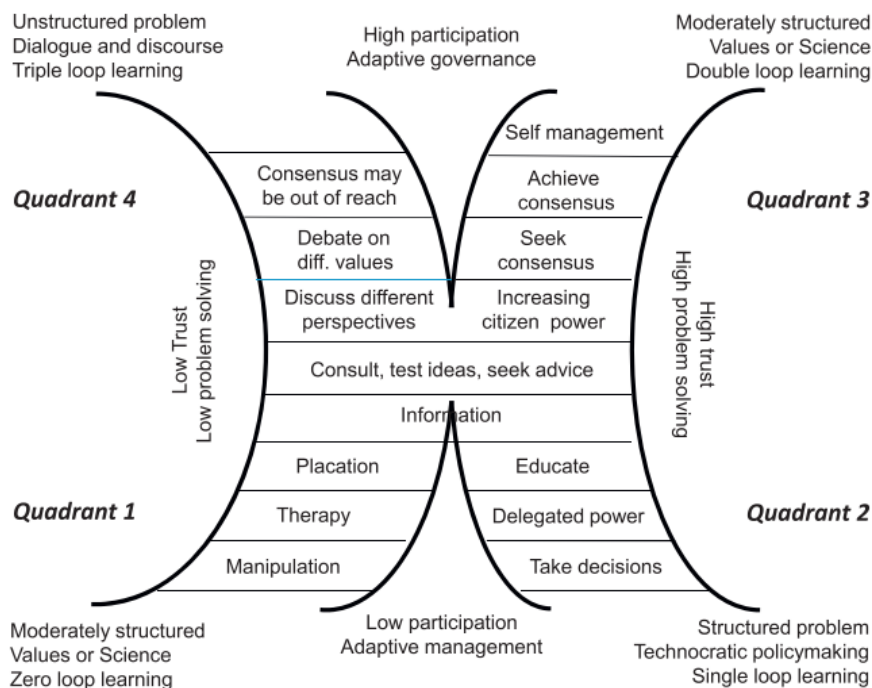
Figure 4.2 The split ladder of participation
(Hurlbert and Gupta, 2015)
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This provides a useful framework for UK coastal governance due to the complexities of governing the LSI. The role of government agencies and local authorities probably exists somewhere in the middle: 'consult, test ideas, seek advice' - but for stewardship action could aspire towards more discussion and debate (Quadrant 3), and if consensus can be found, increasing citizen power and adaptive governance (Quadrant 4). This is perhaps where existing (voluntary) coastal partnerships and networks are operating (shown in Table 3.1)[91].

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[91] Coastal Groups for Shoreline Management Plans are striving for consensus over a policy option to address erosion and/or flooding problems and likely to take several loops around the ladder/wheel of participation to seek ownership of different decisions. Coastal Partnerships do not necessarily strive to seek consensus on any one problem or decision, offering an open/neutral platform for discussion

Sustainable 'development' implies ongoing 'growth', whereas stewardship implies more sustainable and equitable 'use' or 'management' and a longer term ability to provide for humans balanced with other species and ecosystem health. Worrell and Appleby (2000, p.271) propose that the difference between sustainability and stewardship is the inclusion of the wider public interest *and* the interests of other species. They suggest how the stewardship concept can build on sustainability by encouraging a broader view of who and what should benefit. If successfully introduced, they claim it could lead to wider acceptance of the legitimacy of public interest, decreasing the need for compulsion or coercion. It could address the dissatisfaction with regulation which is considered too 'rigid' to deal with environmental policy (Craig and Ruhl, 2010)[92]. Key to this step is the role of partnerships to build stewardship action.

4.3 Coastal Stewardship

There is recognition of an increasing need for coastal and marine stewardship around the globe with the coast recognised under pressure and in need of a response through 'top-down' policy drivers (Alexander, Brennan and Kenter, 2017), but notions of stewardship also demand a 'bottom-up' driven connection with the coast. The term 'coastal stewardship' has had limited uptake in the literature and in relation to the UK coast almost none, although much of the literature and current practice surrounding coastal and marine planning, management and governance involves discussion about stakeholder and public participation – which may imply or involve motivation towards 'bottom-up' stewardship action (e.g. Buchan and Yates, 2019). UK coastal policy makes no active reference to stewardship, apart from recent references to it proposed by the author in the recommendations of the Marine Pioneer project (Lannin, 2021)[93].

Stewardship has been taken as the overall objective for this research as it implies an obligation on people, as end-users, to engage in resource management from a bottom-up perspective, rather than relying on top-down effort towards sustainable development. Coastal stewardship is particularly important due to the problems outlined in Chapter 2, and a lack of clarity over the obligations of public and private landowners and government agencies towards co-ordinating its long term 'good'

and debate around voluntary plans/strategies towards the overall sustainability and health of the coastal ecosystem, providing a collaborative governance platform.

[92] There is "*dissatisfaction with so-called 'command-and-control' forms of regulation [which] have increased since the 1990s, the criticisms being that it is inefficient, ineffective, and far too rigid to handle the dynamic needs of environmental policy*"(Craig and Ruhl, 2010 p.1378)[92].

[93] Recommendation 7 on Community Empowerment (pp.85-94) includes reference to related evidence, examples and discussions which includes 'Bradshaw (forthcoming) Research on socio-legal options to improve coastal stewardship through collaborative governance, trusteeship and guardianship' (p.93).

governance. There is also an acceptance that there is no 'one size fits all' approach which is likely to work, particularly across the devolved administrations – local specificity is important. The case for moving towards a place-based adaptive management regime for fragile and complex coastal and estuary ecosystems is recognised by Craig and Ruhl (2010) and others in professional practice. The key question to be asked by this research in relation to collaborative governance and stewardship action for the UK coast is 'how' and 'what' mechanisms could help to lever better governance and enable more stewardship? Existing mechanisms to support collaborative governance were described in Chapter 3 and a socio-legal approach identified to offer potential options for improvement, which we turn to in the next section.

The following definition of coastal stewardship in a UK context is therefore used for this research: "*The process of enabling people, as end-users in coastal communities, to engage better in the governance of resources for the benefit of future generations and the health of the coastal ecosystem*".

The term 'coastal SES' was introduced in Section 2.1 and encompasses this definition, based on the notion of landscape stewardship and place-based governance described above (Section 4.1).

4.4   Socio-Legal Options

A socio-legal approach to the research was introduced in Chapter 2. This section will consider socio-legal options to increase coastal stewardship by linking collaborative governance activity with its legal foundations in the states' powers and duties, and their role in protecting the public interest and the fiduciary responsibilities of the state. There is an expectation that this must involve people as well as institutions, in formal and informal arrangements/networks. The socio-legal options presented in this research aim to identify collaborative governance mechanisms (based on Bingham, 2011), which support:

i) collaboration with and among organisations, and;

ii) collaboration with the public.

This will bring together bodies of literature which are otherwise not connected in the current discourse or in practice and have potential to influence future direction. Three options are envisaged which could help to facilitate stewardship through the 'top-down' regulatory approach and 'bottom-up' voluntary approach:

- Collaboration through partnerships and joint committees (*SLO 1*)
- Trusteeship and the potential application of the Public Trust Doctrine (*SLO 2*)

- Legal standing and guardianship; creating a voice through representation of an ecosystem (*SLO3*).

The remainder of this chapter elaborates on these three options as potential routes to enhance collaborative governance for coastal stewardship. *SLO 1* challenges the existing notion of sustainability and whether existing, voluntary, partnerships are adequately promoting stewardship. It then continues by addressing two routes to enhance stewardship through trusteeship (*SLO 2*) and guardianship (*SLO 3*). The concepts of trusteeship and guardianship have deep foundations in our society.[94]

4.5 Stewardship through Partnerships and Joint Committees (SLO 1)

Based on collaborative governance and the participatory engagement mechanisms identified in Chapter 3, this 'baseline' option focuses on strengthening the relationship between institutions, stakeholders and communities by building on existing partnerships as described in Section 3.3.2. This route explores whether the current trend of localism, levelling-up, natural capital approaches and net-gain opportunities could adequately reflect non-use value (Section 2.4.3); do duties towards consultation and stakeholder engagement really reach into communities and result in a spirit of cooperation; do they encourage or discourage a sense of ownership and therefore generate stewardship action; and to what extent is the sustainability paradigm encouraging stewards?

Participatory engagement has been shown to support decision-making in planning for coastal zones (e.g. Carrero *et al.*, 2016) but the extent to which public participation fits with institutional structures is an ongoing debate. DeCaro and Stokes (2013) argue that public participation plays a role in the development and long term maintenance of environmental institutions that are well-matched to local socio-ecological conditions, but the mechanisms remain unclear "*to adequately promote a sense of procedural justice and self-determination, public participation must be properly matched to the local social–ecological context*" (DeCaro and Stokes, 2013, p.40). The type of public participation is important when it comes to their 'fit' with the coastal SES (Section 4.2).

A key aspect of partnerships for stewardship action is the question of scale and the meaning of 'place-based' governance in terms of their ability to engage stewards. To overcome limitations "*stakeholder participation must be institutionalised, creating organisational cultures that can facilitate processes where goals are negotiated…*" (Reed, 2008, p.2417). This is also envisaged in

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[94] In Biblical reference to the heir as a child owning an estate, "he is subject to guardians and trustees" (Galatians 4:1-2). Further, Paul sees his responsibility for preaching as a divine trust (1 Corinthians 9:17).

Article 8 of the Biodiversity Convention where 'Bioregionalisim' would organise society "*on the basis of natural territorial units with which people can identify (bioregions like the catchment area of a river (such as the River Dart in Devon) and efforts should be made to promote the local self-sufficiency of such regions*" (Bavikatte, 2014, p157). This is effectively the role that has emerged from the bottom-up through CEPs where they exist and have been sustained (Figure 3.3).

Collaborative and transformative approaches to participation are sought, to empower coastal communities towards stewardship action, and this implies the potential for alteration of the structures and institutions of governance. The need for sustained engagement including a long-term, appropriately resourced, collaborative approach to engaging coastal communities and stakeholders, is recognised by the Committee on Climate Change (2018, p.63). The rise of partnership as a means of organizing people and resources has been a positive step for Britain with "*joint working between government, business community and voluntary sector…now spreading to become a common way of working for better local governance in Britain*" (Carley, 2000 p.292). Novel approaches have been explored through the Governments' Marine Pioneer projects as cited earlier (p.82). There is increasing interest in collaborative approaches focused around place-based governance within and beyond the UK and many of the partnerships and joint committees identified (Table 3.1) are facilitating Batory and Svensson's (2019) internal and external collaboration (Section 3.3.2).

Based on the assertion that there is a governance gap 2.7) the powers and duties to collaborate, which have emerged in the UK's approach to governance in recent years, could go further. *SLO1* would therefore involve stronger recognition of the role of partnerships/joint committees in supporting or enforcing the powers and duties to collaborate outlined in Section 3.3.1 (p.56). Partnerships could link more strongly with the legal framework, but there isn't a clear route to show how this could be achieved.

Further collaborative mechanisms are therefore proposed in the remainder of this chapter, to strengthen governance 'fit' with the coastal SES through local and national trustees (*SLO2*) and guardians with legal standing (*SLO3*) to more formally represent the coast.

4.6   Trusteeship and the Public Trust Doctrine (SLO 2)

Building further on the role of partnerships/joint committees*, SLO2* considers the role of trustees and trusteeship to further stewardship and represent a coastal SES in decision-making. It is based on the opportunity of:

SLO 2(a) strengthening charity and/or company law to give 'stewards' legal status through their formal role as trustees and directors.

SLO 2(b) application of the public trust doctrine to promote stewardship by owners, regulators and trustees.

4.6.1 Trustees

Trusteeship offers possibilities to support existing formal and informal governance arrangements, offering alternatives to a purely regulatory approach to resource management, thereby securing a spirit of public ownership (Appleby, 2015; Appleby *et al.*, 2016). As has been shown, many informal PEMs have emerged over the past two decades for river catchments and coastal areas. They operate with Steering Groups or Management Committees made up of statutory and non-statutory bodies as partners, some with existing trustees. The majority of catchment partnerships are hosted by a partner with charity and/or company status, such as The Rivers Trust or a Wildlife Trust. They effectively give legal status to (non-statutory) social institutions with trustees and directors, joined by staff attending (voluntarily) in their role working for a statutory public body. Yet, of over fifty CEPs only a handful have obtained legal status, as shown in Table 4.1 below, with many more existing entirely on a voluntary, ad-hoc basis (see Figure 3.3 Coastal and estuary partnerships (Coastal Partnerships Network, March 2022).

There appears to be potential for charity/company trustees to lead more effective governance of a coastal SES, for example through Community Interest Companies (CICs) or Organisations (CIOs). They enable a committee of people to act as trustees over the natural environment, who then have a duty to 'act in good faith', building on government's legal duties towards the environment. Trustees of a third sector engagement initiative such as a catchment or coastal partnership can support internal and external collaboration. For NDPBs they bring together and share understanding of the duties of different regulatory bodies; consult industry and society about their needs/desires; and then have a responsibility to take the longer term view based on the knowledge of the ecosystem they need to represent. For the public, they can increase awareness of statutory consultations, offer engagement opportunities with decision-makers (e.g. Forums, working groups) and organise practical action (e.g. beach cleans). In this scenario there is a better chance of promoting stewardship: in combination with public bodies, their role offers a potential voice for the environment through its better representation with government bodies supported by PEMs which help to represent the long term public interest. Government could renew current legislation in order to guide and successfully monitor trustees (Barrett, 2015) with measures to incentivise the right behaviour and ensure they are operating in the public interest and promoting stewardship.

Table 4.1 Different types of coastal, estuary and marine partnerships and their current legal status.

Note: there are many more partnerships which are entirely voluntary (see Figure 3.3 Coastal and estuary partnerships (Coastal Partnerships Network, March 2022).

Location/Partnership	Framework or driving legislation	Other Status in law	Trustees/Directors or informal Joint Committee
Pembrokeshire Coastal Forum	National Parks and Access to the Countryside Act (1949) - Pembrokeshire Coast National Park (1952)	Pembrokeshire Coastal Forum CIC	Board Members
Chichester Harbour Conservancy	Chichester Harbour Conservancy Act (1971)	AONB	Conservancy committee and AONB Joint Advisory Committee
Thames Estuary Partnership	None / Various	Charity	Board of Trustees
Solway Firth Partnership	None / Various	Independent Charitable Body and Scottish Company	Board of Trustees
Severn Rivers Trust & Severn River Ecology Ltd.	Water Framework Directive (2000)	Registered Charity & Company	Board of Trustees & Directors of Company
Severn Estuary Partnership	None / Various	None	Joint Advisory Committee
Irish Sea Maritime Forum	None / Various	None	Steering Group
Clyde Marine Planning Partnership	Scottish Marine Act (2010) & EC Maritime Spatial Planning Directive	Ministerial Declaration	Board (signatories to Constitution).

4.6.2   Public trust doctrine

The public trust doctrine (PTD) is a legal principle which long pre-dates any statutory law, with potential to offer an original (historical) legal mechanism to ensure that government safeguards natural resources necessary for public welfare and survival. The public trust responsibility underpins democracy itself (Sax, 1970) and stems from ownership and responsibility for the foreshore. Its core elements include *"the notion of stewardship or trusteeship on behalf of current and future citizens"* (Turnipseed, *et al.*, 2011 p.368). It is beyond the scope of this thesis to consider in detail the origins of the public trust, but to focus on how the PTD could be applied to seek a legal and regulatory framework which helps to ensure adequate representation of the (longer term) public interest. Both regulatory bodies and third sector trusts' carry fiduciary (trusteeship) duties[95]. The state as a trustee may not allocate property rights which destroy what people rightly own, therefore the PTD imposes

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[95] The PTD provides an opportunity to inject fiduciary (trustee) duties into government action and has been described as an instrument for democratisation as it has potential to represent the public interest over commercial interests (*Gould v Greylock Reservation Commission*[95]).

a fundamental constraint on government power[96]. The PTD is an expression of public property rights and common ownership whereby natural resources need to be held in trust for the people.

The PTD has been embedded in judicial decision-making in the United States over the past century[97] and is gaining traction in other countries. Joseph Sax (1970) wrote that "*the doctrine contains the seeds of ideas whose importance is only beginning to be perceived, and that the doctrine might usefully promote needed legal development*" (Sax, 1970, p.485). Since then, the PTD has evolved from its origins in court into constitutional law and environmental regulation overseen by public agencies. Its' application is growing, particularly in countries of the global south. Versions of the doctrine can now be found in most legal systems of the world (Bollier, 2014) as shown in Table 4.2.

Table 4.2 Representation of the Public Trust Doctrine in state law
Summarised from Blumm and Guthrie (2012, pp.750-807)

Country	Legal adoption of the PTD	Example of application	Comment on future prospect
India	Constitution 2010. Supreme Court declared the doctrine was the 'law of the land' and has fully embraced the doctrine over a substantial period of time.	Restoration of a park.	Substantial potential due to origins in natural law and the most detailed judicial consideration of any jurisdiction outside of the US.
Pakistan	Supreme Court has interpreted the doctrine.	Protection of coastal land from waste disposal.	Potential due to emerging case law.
Kenya	Several provisions of the 2010 Constitution.	Remedy for the discharge of raw sewage into the Kiserian river.	Good potential due to position in constitution and emerging case law.
South Africa	Embedded into the Constitution and environmental statutes.	Water resources, minerals and coastal zones.	Substantial due to reference in constitution and statutes, but proof of implementation needed.
Canada	Suit against the federal government.	Common right to fish in Atlantic waters.	Considerable potential to adopt a viable PTD.

However, complications still emerge over interpretation of the PTD and a number of courts believe that they are not an appropriate forum to deal with it (Sax, 1970). The role of communities and environmental activists may therefore be key to bringing the PTD to the fore (Cullinan, 2011; Wood,

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[96] "*The power or control lodged in the State, resulting from this common ownership, is to be exercised, like all other powers of government, as a trust for the benefit of the people, and not as a prerogative for the advantage of the government as distinct from the people, or for the benefit of private individuals as distinguished from the public good*" (Greer, 1990 in Wood, 2014).

[97] The PTD is essentially about giving people rights over access to natural resources. Its origins lie in Roman jurisprudence when in 535 AD the first legal recognition of the commons was enshrined in law "By the law of nature these things are common to mankind - the air, running water, the sea, and consequently the shores of the sea…"[97]. The English common law adopted the PTD and the United States Supreme Court adopted these principles in *Shively v. Bowlby*[97] (1894) when seaward of high water mark, the states took shorelands in 'trusteeship' for the public, meaning that conduct must be exercised for the public purpose and must not merely be a gift of public property for a strictly private purpose[97]. A seminal article by Joseph Sax in 1972 highlighted the doctrine through examples of case law, which further evolved through the 1970s and 1980s.

2014). The origins of the PTDs legal application are particularly pertinent to the coastal environment as they stem from rights over the foreshore and navigation[98].

UK application of the Public Trust Doctrine

The doctrine has been argued to have foundations in English law: it is not well known or applied in the UK but has been shown to offer potential to secure sovereign responsibilities towards inshore fisheries management (Bean, 2021). However, case law appears to have limited the application of the doctrine in the UK[99] which reinforced reliance on regulatory bodies (instead of TCE) to represent the public interest. Tidal seas and tidal land below the high-water mark are owned by The Crown Estate (TCE) as sovereign, and managed with the dual purposes of commercial gain and stewardship (The Crown Estate, 2014). The fiduciary responsibilities of TCE towards the coast appear to have been limited by *Tito vs. Attorney General* (1977) which defined the use of the word 'trust' in relation to the Crown as not imposing a fiduciary duty but rather a governmental obligation which the courts could not enforce[100]. So in modern-day UK a wide range of public agencies are tasked with implementing environmental law and citizens seem to get less direct access to the courts[101]. Public trust is rarely sighted in UK case law, but a recent case in *Loose v Lynn Shellfish Ltd* (2016)[102] commented on law relating to the foreshore:

"*The foreshore originally belonged to the Crown [but]…over the years… by Crown action or by common law or by statute ownership, other rights have in many instances passed to others, such as local authorities and private landowners. Ports and docks have been governed by their own statues. In practice in many situations the local authority appears expressly or implicitly to have taken over the ownership and management of many foreshores; and appears in a sense to hold the foreshores on public trust for public benefit…the Crown is assumed to hold the foreshore in the public interest preferably for public purposes.*" (Loose v Lynn Shellfish Ltd (2016) at [32]).

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[98] In the U.S., the doctrine guarantees the public the right to use navigable or tidal bodies of water for commerce, fishing and navigation. Over the past 75 years some states have extended the rights to recreational use (Henry Rose (2013) p.92). Key case law includes the *Mono* Lake decision (National Audobon 9 P.3d v. Superior Court (*Mono Lake*), 33 Cal. 3d 419 (1983) which extended the doctrine to groundwater and the *Waiahole Ditch* decision (*Waiahole Ditch I*, 9 P.3d at 445 (2000) which encompassed the precautionary principle in U.S. case law (Blumm and Guthrie, 2012, p.747-8). Whilst the doctrine had its origins associated with foreshore and navigable waters in the US, it has evolved beyond this geographically and internationally.

[99] A lack of sympathy for public rights over the foreshore was shown in *Blundell v.* Catterall (1821) in Bonhady p.28, which took a narrow view and restricted public rights over the foreshore to navigation and fishing.

[100] According to Sax (1970 p.498) many courts respond to threats to resource development and conservation simply by asserting that protection of the public interest has been vested in some public agency and that it is not appropriate for citizens to involve themselves with second guessing the official indicators of the public interest. For example ''*The Legislature, through its lawfully created agencies, rather than 'interested' citizens, is the guardian of the public needs [which are] to be served by social legislation*'' Harrison-Halsted Community Group v. Hoseing & Home Fin. Agency, 310 F2d 99, 105 (7th Cir.1962), cert. denied, 373 U.S. 914 (1963)

[101] Recently, the UK government has attempted to make it harder for citizens to access the courts through proposals to restrict access to judicial review101 (Dougan, *pers.comm*, April 2017, UWE Bristol Law School lecture).

Today, it is therefore recognised in case law that ownership of the foreshore rests with TCE and in practice some LAs, port/harbour authorities and private owners. Use of the terms *public trust, public benefit* and *public interest* (all cited above) do not appear to be clearly defined or consistently applied in decision-making. The Government have responsibilities towards current and future citizens to represent the (longer term) public interest and they chose a variety of ways to achieve this through an unwritten constitution, statutory powers and regulatory bodies acting on behalf of the general public. Common law countries (like the UK) have a body of case law to draw on the interpretation of the public interest in relation to international and national obligations, but judicial interest in the PTD has waned alongside the enactment of numerous environmental statutes over the past four decades (Weston and Bollier, 2013). NGOs use of the PTD has not been prevalent, perhaps because of this.

Greater recognition of the public trust is possible. Highlighting that pressure on the coast is increasing, Samuels (2017) proposes a Law Commission review and a clarifying statue for the foreshore and beaches of England; and for the foreshore to be declared public property, held in trust for the public. Statute would set out the guiding principles regarding management, control and use, supported by a code of guidance and disputes settled by a nominated tribunal, with an appeal on a point of law. Whilst recognising the role of public bodies, Samuels (2017) proposes that the National Trust (which own many miles of coastline) has a role to play[103].

Fiduciary responsibilities and regulatory approaches

The PTD offers an opportunity to inject stronger fiduciary duties into government action affecting the environment. It may be possible to create "*a paradigm shift in environmental law where discussion of the potential of the PTD should not be confined to legal scholarship, but inspire a new political concept, an ethical mooring, a diplomatic framework and an economic principle*" (Wood, 2014). The Governments' role as a trustee of common assets may have been weakened by economic growth priorities, especially due to free market global economics which have distanced citizens from direct reliance upon their local resources. Regulation is generally dominated by procedures and scientific expertise, so that the views of local residents or individual consumers do not carry as much weight in decision-making as technical experts and corporate officials. People often find themselves

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[103] The stranding of the *Napoli* container ship in south Devon during 2007 demonstrated the complexities arising from too many regulators and lack of public accountability, even to a landowner whose primary purpose is stewardship of the public interest. A slow response led to pollution of the foreshore and marine environment[103] (Lowther et al 2009). The National Trust who own part of the foreshore at Branscombe Beach, had little direct role in the handling of this incident, even though they are the primary landowner. This and other examples of damage to the environment, suggest that NGOs ought to consider utilising the PTD to a greater extent.

delegitimized as participants in the governance process (due to its complexity and time demands), or simply unable to afford the costs/time to participate.

The PTD and Stewardship

Connections have been made between the PTD and role of the state towards stewardship duties. A proposed framework for duty of stewardship and fisheries governance has been described by Soliman (2014) in which the PTD is seen as the government holding certain natural resources, such as navigable waters, in trust for use by the public. Brewer and Libecap (2009) assert that the rights of the public are vested in the state as trustee of the resource and it has a duty to administer, protect, manage and conserve it. Private users' rights can be withdrawn if the state deems that they are inconsistent with the public trust, therefore the state is the steward on behalf of the wider public, effectively limiting private property rights to ensure stewardship. However, the government as 'steward' only has to take actions that are explicitly prescribed by law, therefore cannot be sued unless a statute requires them to do something which they haven't. There is no 'general' requirement for the government to behave 'responsibly' and through legal or contractual requirements some users (e.g. fishers) can effectively become stewards.

Wood (2009) and Bollier (2014) argue that we need legal innovation that can give the commons real standing in law and suggest this can be achieved through the creation of trustees at the local level: "*As a trustee, the state has affirmative obligations to assure maximum possible transparency, participation and stewardship at the lowest level of governance possible ('subsidiarity')*" (Bollier, 2014, p.141). Further background to this argument is provided in a separate (unpublished) paper on the public trust doctrine in Appendix 5.

The Crown Estate duties

Duties of TCE towards good management and stewardship are discussed elsewhere (Section 2.4.1). Based on the above evidence it is appropriate to consider the extent to which the primary foreshore and seabed owner, TCE, are directly engaged in coastal governance. During marine plan and MPA consultations, representation by Crown agents appeared absent in regional consultations. If scrutinised, the sovereign state's obligations could be considered lacking in transparency and accountability due to their limited direct engagement, particularly at the local/regional level. They exert characteristics of an absentee landlord where the wealth generated may not find its way back to invest in the assets from which commercial gain is found. When the time comes to re-draft the

Crown Estate Act (1961)[104] there may be opportunities to consider embedding stronger stewardship duties on TCE and this could include mechanisms to ensure public assets are utilised for the benefit of the wider public as owner of the public trust.

4.6.3   Coastal SES trustees

The previous two sections have suggested that the role of trustees (backed up by the PTD) could build on the existing role of PEMs. SLO2 therefore introduces the concept of a coastal SES gaining legal status, possibly through the role of trustees/directors carrying fiduciary responsibilities towards the coast. Partnerships and joint committees could be utilised to highlight the value of natural capital at the scale of an ecosystem, linking with investment by a wide range of public, private and third sector partners and levering the engagement of community volunteers. Rather like bioregionalism (Bavikatte, 2014; Attfield, 2015) this would challenge the 'top-down' regulatory approach to stewardship by utilising stronger 'bottom-up' approaches to governance such as commons trusts (Weston and Bollier, 2013).

In summary, the PTD originated in the UK common law, has been applied in other countries, but has not been furthered through the UK legal or regulatory framework, it remains in the background of their powers and duties. Never the less, the Government have fiduciary responsibilities, expressed through acting in the 'public interest'. Interpretation and adoption of the PTD in the UK lacks adoption by environmental NGOs or take up in case law, the regulatory approach dominates decision-making, but its growing use in other countries and potentially imminent revision of TCE Act (1961) may open opportunities for re-consideration. However, on a note of caution, there is an inherent weakness in the PTD if its application is limited to decisions that are in the *public interest* or for *public benefit* if this is not clearly defined, especially if it can be argued that environmental damage can be compensated through mitigation or offsetting (which the current regulatory approach utilises). There is an important distinction to be made between the PTD and trustees promoting stewardship for human benefit, and the potential representation of natural resources *in their own right,* which we will now address through SLO3.

4.7   Guardianship and Legal Standing (SLO 3)

The adequacy of government and public bodies' ability to represent the long term public interest towards sustainability has been queried (Chapter 2). A route to enable non-use value and long-term

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[104] It is understood that revision of The Crown Estate Act (1961) will be enacted when the throne is passed on from Queen Elizabeth II (https://www.thecrownestate.co.uk/en-gb/resources/faqs/ accessed 24.04.2022).

social value to be more strongly represented in decision-making would be through the coastal SES gaining legal standing. This is furthest from existing governance arrangements for the UK coast, but evidence is emerging globally of how this route could evolve in the UK, motivated by people who want to see stronger stewardship action through place-based governance.

The notion of giving legal standing to natural objects emerged several decades ago and has been elaborated in the concept of guardianship and the wild law movement (Cullinan, 2011; Woolaston, 2018). In recent years, several rivers around the world have been designated with legal standing and guardians appointed through different mechanisms, which are introduced here with additional background provided in Appendix 5. This third socio-legal option assesses how existing regulatory responsibilities and voluntary efforts towards the UK coast could evolve (potentially via trustees in SLO2) to give coastal ecosystems their own legal identity, with people (as stewards or trustees) presenting themselves as legal guardians/representatives.

Recent legal standing has been granted for rivers in the global south and could offer new routes to stewardship in highly regulated countries (such as the UK) where 'bottom-up' governance mechanisms are gaining momentum. Philosophers such as Stone (1972) suggest that only through bottom-up community focus will global sustainability be achieved. A committee (of a Trust) such as pictured above (*SLO1, SLO2*), could effectively act as a guardian of the natural environment. This could produce different results to a government body implementing its legal duties towards the environment (the predominant scenario today). Measures such as an independent counsel, electoral apportionment, cultivating personal capacity with the possibly a court-appointed guardian would be more utilised for governance (Stone, 1972). Guardianship offers further possibilities to support existing formal and informal governance arrangements and alternatives to a purely regulatory approach to resource management (Stone, 1974, 1999, 2010; Clark *et al.*, 2019). Stone (1999) proposed a 'guardian for the oceans' involving a reform of institutional structures to include a legislative advisory function with guardian staff having a counsel capacity.

SLO3 therefore suggests consideration of whether the coastal ecosystem could justify legal standing *in its own right*, drawing from the field of wild law, effectively creating a 'voice' for the ecosystem. It has the potential to offer powerful stewardship opportunity for a coastal SES unit and is not mutually exclusive to the options presented for partnerships (SLO1) or trusteeship (SLO2). The growth of participatory engagement mechanisms (Section 3.3.2) could lead towards a guardianship approach. *SLO3* offers a stronger legal basis to illustrate how people could represent the coastal ecosystem in a court of law. Precedence for this has been established by the River Wanagnui in New Zealand and other recent environmental law cases which give legal personality to an ecosystem by

nominating a guardian/spokesperson to represent it in judicial proceedings (see Appendix 6). Early signs of this are growing across the UK for rivers, with examples including the Dart Charter and a Byelaw for the River Frome (Kaminski, 2021)[105]. Other legal options might include revisions to existing legislation such as through the National Parks and Access to the Countryside Act (1949), The Crown Estate Act (1961) and/or the Marine Acts (2009; 2010).

4.8   Chapter Summary

Chapter 4 (coastal stewardship) has offered a new perspective on why there is a need to re-address the legal and regulatory approach to coastal governance. It is argued that stewardship would be a better aim than the dominant sustainability paradigm. It has framed three options which could enhance collaborative governance for coastal stewardship through stronger legal underpinnings for the coastal socio-ecological system, building on participatory engagement mechanisms. It reflected on evidence in the literature and in practice surrounding partnerships, trusteeship and guardianship as potential routes to improvement. This concludes the literature review and Phase 1 of the research, which has provided the foundation for considering how well governed the UK coast is – through legal, regulatory, policy, planning, institutional arrangements and voluntary approaches.

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[105] The River Dart Charter was signed in 2018 at a workshop bringing together local stakeholders and researchers with the suggestion '*As a river steward, what would you do?*' (Bell *et al.*, 2018). In 2018, Frome Town Council tried to give parts of the river legal personhood through a new Byelaw, which was turned down in 2020 but a recent article in *The Guardian* newspaper suggests that there is appetite to keep the idea alive at the local and national level (Kaminski, 2021).

5   RESEARCH STRATEGY AND METHODOLOGY

Chapter 5 begins with the conceptual framework for the research, positioning it alongside existing perceptions of coastal governance and stewardship in the literature and in practice. The researchers' ontological position is indicated, together with the epistemological foundations. The research questions and objectives are set out, followed by a discussion of the methodological framework and method options. The rationale for adopting a Delphi-based method is provided and the research strategy described in four phases: Phase 1 (literature review), Phase 2 (Delphi-based process), Phase 3 (verification and workshop) and Phase 4 (evaluation and route-map).

5.1   Conceptual Framework

The conceptual framework underpinning any research is influenced by the ideas and beliefs held by the researcher. The problem and issues contextualised in Chapters 2-4 were considered alongside the researchers' position and how that informed the choice of method. The research aimed to take a practical and applied approach to the problem, with a core purpose to generate recommendations for practitioners involved in implementing legislation and policy at the national, regional and local levels within the UK. A method was sought which would engage a set of expert 'stakeholders' - people from government, industry, academia and society - in a dialogue about the socio-legal context for existing decision-making and potential new options to improve collaborative governance for the stewardship of coastal ecosystems.

5.1.1   Perceptions of current coastal governance and stewardship

The methodology and choice of research method was determined by the current context for coastal governance and stewardship. As discussed in Chapter 2 (the UK coast), there have been several decades of growing regulation, policy and practical effort towards coastal governance. However, institutional collaboration remains lacking to adequately support integrated/co-ordinated management. Chapter 3 (collaborative governance) offered a wider perspective on the fundamental underpinnings of why there is a need to review the existing regulatory approach and coastal policy, including evaluation of the legal foundations which influence it - property ownership, rights and duties and the public interest. The case was made for collaborative governance and progress towards it was reviewed. In Chapter 4 (stewardship) the review of literature developed an argument around three options to evolve stronger collective action: through partnerships and joint committees; strengthening trusteeship through charity/company law and the public trust doctrine; and the vision of legal standing for an ecosystem.

It is widely accepted that the current complexities in coastal governance arrangements are real (Carvalho and Fidélis, 2013; Boyes and Elliott, 2015; Kelly, Ellis and Flannery, 2019) but momentum around ICZM (Section 2.6.1) has weakened and been replaced by increasing emphasis on marine policy and planning. There lacks a commonly understood or accepted (institutional) framework for coastal governance across England (let alone the UK). Previous attempts towards sustainability indicators have not been maintained or developed[106]. Emerging approaches such as ecosystem services and natural capital assessment, net-gain obligations and values-based approaches offer potential, but there is limited attention towards the coastal socio-ecological system *in itself*, within current approaches to UK coastal governance.

There appears to be a tendency for knowledge to reside in either terrestrial or marine domains, therefore governance systems tend to follow a similar pattern, with limited avenues for specialist knowledge straddling both equally, to focus on the coast. A large variety of sectoral and spatial perspectives with competing interests exist in this marginal zone, with limited focus around governance across the land-sea interface. As a result, there is a lack of agreed theory that applies directly to governance or the pursuit of stewardship for UK coastal ecosystems in themselves, which presented an overarching need for this research.

5.1.2   Researcher positionality

As a practitioner involved in the field of planning, policy and management around the UK coast for over thirty years, there was a desire to investigate more deeply why coastal space appears to be left behind or overlooked in comparison to marine and terrestrial governance. A large part of the motivation to conduct the research was to re-open debate (following ICZM policy) and focus attention on the coast as a space in its own right (Bradshaw, 2018). A potential demand exists for renewed investment in coastal planning and management as a result of the new marine planning system, which has been little explored in recent literature for the UK compared to elsewhere (EEA, 2013; Billé and Rochette, 2015; Støttrup *et al.*, 2017; Khelil *et al.*, 2019). Practitioners and policy-

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[106] Momentum towards coastal policy was seen in the 1990s and 2000s as a result of European Commission investment, both in statute and practice. DG Environment prepared draft legislation for ICZM alongside the EC Maritime Spatial Planning Directive in 2009-10 which Member States rejected - the UK was a leading objector. Prior to this, an ICZM Recommendation (2002) mobilised finance for many projects and the UK participated in an ICZM Demonstration Programme. As a result of this investment there was a flurry of literature around ICZM in Europe. This included proposals for sustainability indicator sets for the coast based on the principles of integrated coastal (zone) management (e.g. Pickaver, Gilbert and Breton, 2004; Sardá, Avila and Mora, 2005; Reis, Stojanovic and Smith, 2014; Reis, 2014; Støttrup *et al.*, 2017) but there has been no universal (or ongoing) application within the UK (or across Europe). There are therefore no standard metrics which can be used to define good or bad coastal governance or stewardship of a coastal ecosystem, although this may be emerging through the use of the natural capital approach (Neumann, Ott and Kenchington, 2017; Elliott *et al.*, 2018; Rees *et al.*, 2020) and Marine Pioneer recommendations (Lannin, 2021).

makers in the UK have recently been orientated more 'offshore' with new opportunities for blue growth and inshore fisheries management post-Brexit.

Ontological and epistemological foundations for the research

The research takes a critical realist approach because the pursuit of new knowledge for the PhD sits between the concept of the physical ecosystem (the coast) and social system (people's approach to and management of its natural resources). Critical realism locates causal relationships - not as a study of dependent and independent variables as a positivist approach would imply - but at the level of the generative mechanism and more as an ongoing process. It offers a social science approach which seeks to identify the mechanisms producing social activity in recognition that they change more rapidly than in the physical world. This research suits the modern shift towards the application of a critical realist approach to social science as it explores new and innovative opportunities to link people with the physical environment and human behaviour with non-human/ecosystem resilience.

The research seeks a true reflection of the current operational context for the governance and stewardship of coastal resources. A post-positivist epistemological position was most applicable to this context through which some clarity is sought about 'actual knowledge' but variability of perceptions is accepted as the norm. Discussions around post-normal science hold potential relevance where the relationship between scientific input and policy-making have been challenged: "*Post-Normal Science (PNS) could be an innovative frontrunner in raising important issues regarding the limited problem-solving capacity of 'normal science' and 'professional consultancy"* (Wesselink and Hoppe, 2011). In this regard, the research aimed to bridge current knowledge from the academic literature with current perceptions of policy-makers and practitioners. The assertion that post-normal science lacks important considerations about the governance of problems and aspects of participatory and deliberative democracy could be addressed through a method which engaged research participants in a deliberative process. The researcher perceived that coastal governance required new research which sought knowledge from practitioners influencing decision-making, particularly which drew on their experience across sectors and a variety of spatial scales, rather than scientific evidence of specific governance problems. A current view of perspectives over current practice and the direction of travel were sought.

5.2   Research Questions

The following three Research Questions (RQs) were determined:

Research Question 1 (RQ1)

What socio-legal options could lead to better stewardship?

Research Question 2 (RQ2)

Which mechanisms support collaboration for coastal governance?

Research Question 3 (RQ3)

How could collaborative governance be enhanced to improve stewardship of the UK coast?

To answer RQ3, the outcomes of the literature review of socio-legal options (RQ1) will be compared with the recommendations from the primary research (RQ2).

There is an underlying assumption that enhancing collaborative governance mechanisms will improve coastal stewardship and lead to the better management of coastal ecosystems, so the research is focused on which and how? Justification is given for this assumption through the literature review (Chapters 2-4).

5.3 Aim and Objectives

As stated in Section 1.4 the overall aim of the research is to offer insights into how collaboration could be strengthened to encourage coastal stewardship. The specific aim is to investigate the socio-legal context and identify collaborative governance mechanisms which could improve stewardship. It will critically assess the following aspects of coastal governance: the legal, regulatory, policy, planning and institutional context; how collaborative governance is taking place; and how it could increase stewardship.

Primary research is carried out to review the current context for coastal governance by engaging a wide range of academics, professionals and practitioners from across the UK. Due to the existing complexity of coastal governance, the research aimed to identify areas where consensus could be found. Results of this research would then be compared with the socio-legal options identified in the literature review. Recommendations are sought for government and civil society leaders, suggesting how coastal ecosystems and coastal communities – the 'coastal SES' (Section 2.1) - could achieve a stronger voice in planning and management decisions which span the land-sea interface, to better reflect the high value of coastal areas.

Objectives

The principal objective is to evaluate the current coastal governance arrangements which operate in the UK and the extent to which they demonstrate collaborative governance. Through a socio-legal approach to the research questions, options for enhancement which would improve coastal stewardship are identified. This will enable recommendations on how to improve coastal

governance in the UK which support institutional collaboration and community engagement in decision-making.

The following objectives (O1-4) will seek to answer the above research questions and structure the research:

Objective 1 (O1) links to RQ1

Review socio-legal options which could encourage stewardship.
The socio-legal context and options for strengthening stewardship action are explored through the literature review.

Objective 2 (O2) links to RQ2

Critically assess collaborative governance frameworks.
This will involve critical assessment of existing collaborative governance through primary research using a Delphi-based process.

Objective 3 (O3) links to RQ3

Test the recommendations from the primary research and identify actions for implementation.
This will be achieved through a workshop involving a self-selected sample of the Delphi participants.

Objective 4 (O4) links to RQ3

Explore the recommendations and compare them with the literature to identify a governance framework and socio-legal route-map for coastal stewardship.
This will be achieved through evaluating the evidence from the review of literature (O1) with primary research through the Delphi-based process (O2) and implementation workshop (O3).

Linkages between the research questions and objectives are illustrated in Figure 5.1.

AIM
Investigate the socio-legal context and identify collaborative governance mechanisms which could improve stewardship of the UK coast

PHASE 1

RESEARCH QUESTION 1
What socio-legal options could lead to better stewardship?

OBJECTIVE 1
Review socio-legal options which could encourage stewardship.

METHOD
Review of Literature

PHASE 2

RESEARCH QUESTION 2
Which mechanisms support collaboration for the governance of coastal ecosystems?

OBJECTIVE 2
Critically assess collaborative governance mechanisms for the UK coast.

METHOD
Delphi Process R1 R2

RESEARCH QUESTION 3
How could collaborative governance be enhanced to improve stewardship of UK coastal ecosystems?

PHASE 3 + 4

OBJECTIVE 3
Test the results and identify implementation actions

METHOD
Delphi Verification R3 Workshop

OBJECTIVE 4
Explore the recommendations and compare with the literature

METHOD
Evaluate evidence from the Review of Literature and Delphi Process.

RECOMMENDATIONS
Route-map to enhance collaborative governance and improve coastal stewardship of the UK coast
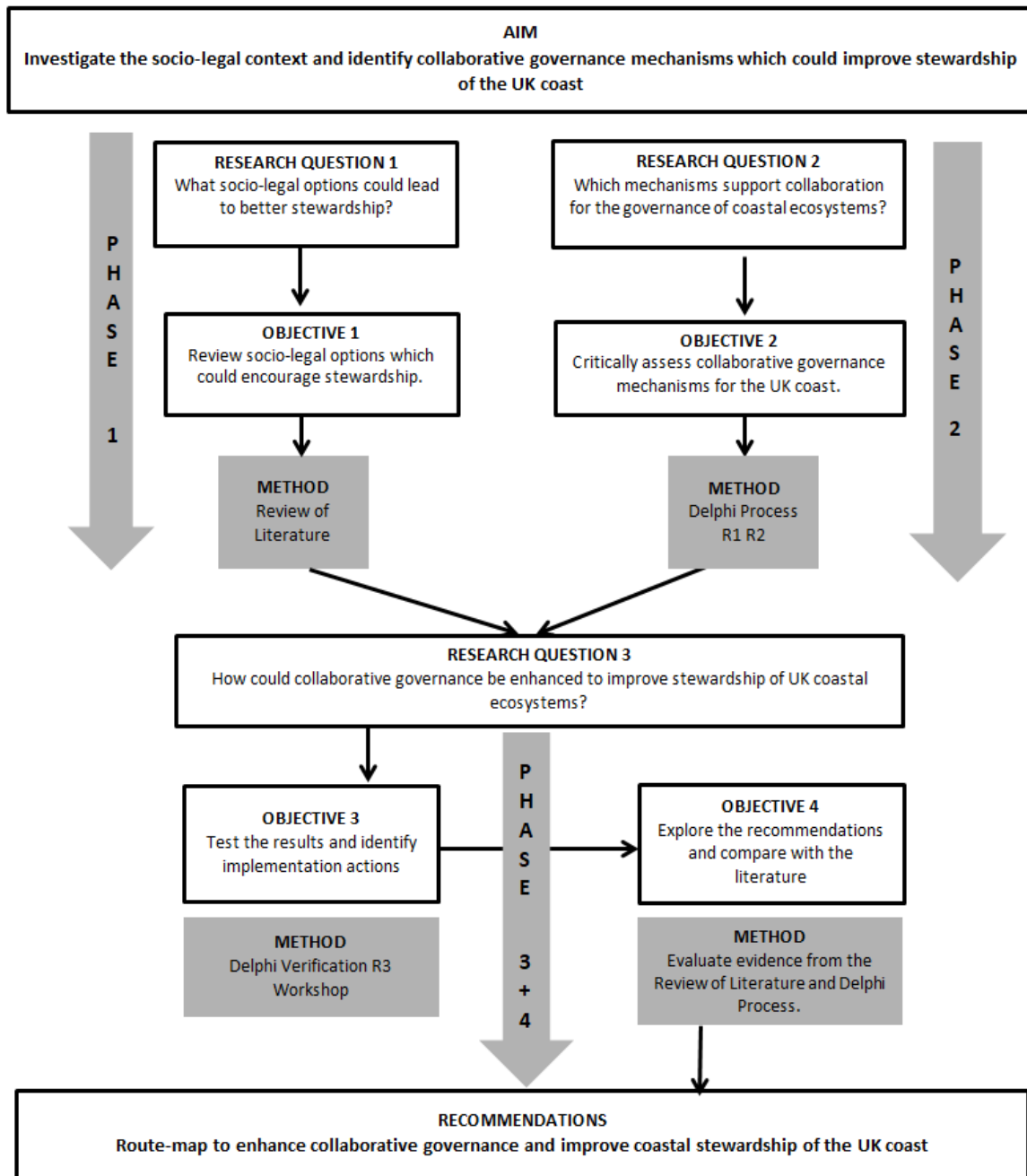
Figure 5.1 Flow chart illustrating the research questions, objectives and methods in four phases.

5.4   Theoretical Approach

Due to the lack of any existing theoretical context that is directly applicable to the central research question, the initial foundations for the primary research drew from grounded theory. It was considered that an open approach based on the research questions was needed to avoid the introduction of researcher bias. A grounded theory approach was considered to provide the closest position to practice-led research, where the research question(s) would emerge from being immersed in the process. However the risk of bias was considered too high for that approach due to the researcher being known within the practitioner community. A more removed and emergent position was needed for the researcher to explore the problem:

"If you have been a 'participant' in your area of research, the preparatory work may have been done and being familiar with the setting can help the research get going – but be careful. You were there for reasons other than research (e.g. employment/shared experience) which are different to being a researcher. This may provide you with the opportunity to contribute new knowledge to an area you care about – but you will have to ensure that your contribution represented valued research results and not merely what you wanted to prove or get done as a participant. If these ends are the same, you will have to be especially careful to establish that they were the same and that your study is rigorous" (Morse and Richards, 2002, p.38).

Grounded theory has an ability to remove the researcher's perspective from the research process and let the participants determine the outcome. It is suited to the research questions because it has been proven as an appropriate approach for social science problems founded on critical realism. An approach was required which enabled the gathering of a wide range of expert opinion about the current context for coastal governance and explore future direction. The methodology needed to enable some detachment between the researcher and the subject (participants) which may not be achieved through direct/personal contact such as through interviews or focus groups (based on a phenomenological or ethnographic methodology). Grounded theory is suitable as it seeks the generation of new theory using an open mind-set during the design of the research strategy and analysis of the data, instead of a pre-determined hypothesis or set of limiting questions. It works well with the generation of an informed, balanced judgement and critical perspective for analysis without personal contact with the subjects.

5.5   Methodological Options

A robust assessment of the current context and future scenarios for UK coastal governance was sought. As described above, the researchers' positionality required a method which would reduce

the risk of introducing bias through direct contact with research participants. The research objectives therefore required desk-based research using remote/online methods which could be anonymised.

5.5.1 Mixed methods

A cohesive and involving research process was sought that could give strong feedback, create a community of participants thinking about the research issues and potentially generate consensus to inform future policy direction. Mixed methods research was considered suitable as it involves collecting, analyzing, and interpreting qualitative and quantitative data in a single study (or in a series of studies) that investigate the same underlying phenomenon. Through combining the two approaches, it is possible to gain a better understanding of research problems than could be gained through using either approach alone (Cresswell and Plano Clark, 2007) and a deeper meaning of the phenomenum (McKim, 2017). Mixed methods research has gained in popularity in recent decades, from its formative period (1950s-1980s); paradigm debates (1970s-late 1990s); procedural development period (late 1990s-2000) and more recently it has been advocated as a new period of research design (Cameron, 2015)[107]. It relies on qualitative and quantitative viewpoints, data collection, analysis, and inference techniques to address the research question; and it is appreciative and inclusive of local and broader sociopolitical realities, resources, and needs. Furthermore, *"the mixed methods research paradigm offers an important approach for generating important research questions and providing warranted answers to those questions. This type of research should be used when the nexus of contingencies in a situation, in relation to one's research question(s), suggests that mixed methods research is likely to provide superior research findings and outcomes"* (Johnson, Onwuegbuzie and Turner, 2007, p.129). A 'pure' mixed methods approach, as shown in Figure 5.2 Mixed methods research was considered appropriate here for the depth and breadth of the problem and research questions.

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[107] *"Mixed methods reearch is an intellectual and practical synthesis based on qualiative and quantitative research: it is the third methodolgical or research paradigm (along with qualitative and quantitative resaerch). It recognizes the importance of traditional qualitative and quantitative research but also offers a powerful third paradigm choice that often will provide the most informative, complete, balanced, and useful research results"* (Johnson, R. Burke. Onwuegbuzie, J. Anthony. & Turner, 2007 p.129).

Graphic of the Three Major Research Paradigms, Including Subtypes of Mixed Methods Research
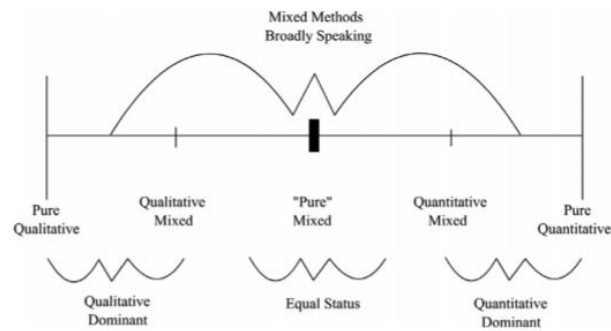

Figure 5.2 Mixed methods research
Source: Johnson, Onwuegbuzie and Turner (2007).

5.5.2   Combining Qualitative and Quantitative Methods

Pragmatism is suggested as a sound philosophical basis for mixed methods research by several authors as it supports the use of both qualitative and quantitative data in the same study (Cameron, 2015). It enables the research question to be given more importance than the method or paradigm that underlies it, with methodological decisions depending on the research question and stage of the study.

- Qualitative methods seek to discover understanding or to achieve explanation from the data instead of from (or in addition to) prior knowledge or theory. The goals always include learning from, and doing justice to complex data, and in order to achieve such understanding, the researcher needs ways of exploring complexity. "Q*ualitative methods offer different prisms through which to view the world, different perspectives on reality, and different ways in which to organize chaos…. they use different aspects of reality as data, and it is the combination of these different data, perspectives and modes of handling the data that gives us different interpretations of reality*" (Morse and Richards, 2002, p.5).

- Quantitative research studies and measures how variables and the variance around participants' responses change to gain a more accurate picture of the 'truth' (Martin and Bridgmon, 2012). Some descriptive statistics can be used to examine the reliability of typical scores, variability among the scores and characteristics and shapes of distribution of scores related to the variables.

As explained above in Section 5.1.1, there was no theoretical position from which to launch this research due to the lack of recent research into UK coastal governance or any one paradigm position from which to begin the research. From this starting position, it was therefore considered that an

open qualitative enquiry was necessary to explore the perceived problem. Participants' initial responses could then be used to help narrow down the issues and identify consensus using quantitative data. Combining qualitative and quantitative methods offered the opportunity to obtain a rich dataset to explore the problem. A method was therefore sought that focused primarily on meeting the research aims and objectives to explore the direction for future coastal governance, rather than focusing on testing a pre-determined hypothesis.

5.5.3 Tools and Techniques

A variety of techniques were considered including questionnaires, interviews, focus groups, action-research and case studies. Their compatibility with the adoption of a theoretical approach based on critical realism, post-positivism and grounded theory was a key factor in deciding on the choice of methodology. Table 5.1 illustrates the different options, their pros and cons, and a scoring exercise which informed the selection of the chosen method.

Four criteria were scored based on the type of information sought from the research:

- A: Depth of information - broad and experienced knowledge from active professionals.
- B: Sample size - large enough to represent different perspectives across scale and sectors.
- C: Participant contact - minimal to reduce the risk of introducing bias.

Questionnaire surveys were identified as the most appropriate choice of method as they offered:

- the potential to reach a larger number of experts;
- the ability to easily engage participants from across the UK;
- less risk (compared to other techniques) of introducing bias by the researcher.

However, some potential limitations of questionnaires included:
- the challenge of recruiting via email;
- less depth of information in responses;
- lack of opportunity for participants to establish consensus between them to inform future direction.

Table 5.1 Advantages and disadvantages of different tools and techniques

TOOL / TECHNIQUE	ADVANTAGES AND DISADVANTAGES		SCORED CRITERIA Relevance to research objectives: 1 = low / 2 = medium / 3=high				JUSTIFICATION
	PROS	CONS	A	B	C	SUM	
Interviews	In-depth discussion of issues.	Smaller sample size. Close contact with participants.	3	1	1	5	Larger range of views required for UK-wide position.
Focus Groups	Views gathered collectively.	Interaction between participants influences outcome. Risk of dominant voices.	2	1	1	4	Primary objective was to take an open approach and gather a wide range of opinions.
Workshops (e.g. action-learning set)	Wide range of views gathered collectively.	Interaction between participants may influence outcome. Risk of dominant voices.	2	2	2	6	Consensus forming potential, but issues potentially too complex to achieve meaningful result using this method alone.
Case Studies	In-depth, potential for practical and applied results.	Every location has specific circumstances.	3	1	2	6	UK-wide perspective sought and common-ground across a wide range of locations.
Questionnaires	Reach a wide audience remotely.	Design of questions and their interpretation is challenging.	2	3	3	8	Depth of information shallower but benefits of reaching a larger and broader range of participants with less risk of bias.

Note: A: Depth of information / B: Sample size / C: Participant contact.

Questionnaires were considered to offer more opportunities than constraints and suited the researchers' positionality. The ability to reach a wide audience across the UK and desire to identify consensus to inform future direction, were key factors determining the choice of the Delphi-based method.

5.6   Delphi as a Methodological Approach

5.6.1   Background to the Delphi Method

The Delphi method was developed in the 1950s as a military forecasting tool by the RAND Corporation. Linstone and Turoff (1975) first defined it as a method for structuring a group communication process which is effective in allowing a group of individuals, as a whole, to deal with a complex problem. The original goal was to forecast the occurrence of events or trends through iterative processes and this has evolved to inform policy and decision-making through a wide variety of techniques adapted to suit research objectives. Delphi aims to accomplish a *"structured communication' which involves some feedback from individuals; some assessment of the group judgement or view; some opportunity for individuals to review the group judgement; and some degree of anonymity for the individual responses"* (Okoli and Pawlowski, 2004, p.16). A common

assumption is that the collective responses of a group of experts can provide meaningful insights into future trends and events (Linstone and Turoff, 2011; de Loë *et al.*, 2016). There is no common theoretical framework for Delphi-based studies, but the popularity of the method and growing variety of its applications supported its' adoption. It has been frequently applied, particularly in health-related studies, but appears to have had limited application to coastal or marine geography and social science studies.

5.6.2   Characteristics of the Delphi method

The Delphi method appealed for this research due to the:

i) complexity and breadth of the research problem, which could be addressed through an iterative process involving a large range of experts;

ii) UK-wide and anonymous approach required, which can be achieved through an iterative survey process;

iii) focus on forecasting, which presents an opportunity to inform future direction for government policy and practice.

Strengths of the Delphi method are its absence of (in-person) group dynamics, the pooling of expert knowledge; and the ability to consult from a distance giving response flexibility for the participants (Mahajan, Linstone and Turoff, 2006). The following key characteristics justify the selection of Delphi as the basis for this research.

Mixed methods

Delphi has a strong association with mixed methods. It starts with open inquiry and questions based on a qualitative approach. Through iterative survey rounds, questions are narrowed down into more specific questions in the pursuit of areas which show consensus. In order to reach firm conclusions, quantitative data is generated through survey questions using Likert scales to produce percentage scores. This approach enables the researcher to guide the enquiry based on results from the previous survey round, with less risk of exposing bias in the process than in-person methods. The final quantitative results directly indicate participants' degree of consensus on a series of statements. The researcher utilises qualitative and quantitative methods of analysis which come together to produce the final results.

Gathering expert opinion

Delphi enables the researcher to engage with experts from disparate locations in a remote dialogue, which would otherwise not be practicable. As a method, it has established itself as one of the standard techniques to accumulate and appraise expert opinions (Steinert, 2009). It is a technique for exploring issues using expert judgement, in areas where there are no scientific 'rules' (Bailey *et al.*, 2012). The Delphi method is also appropriate for this research due to its suitability for situations when judgements need exploring, when informed opinions need to be generated or correlated, and/or when diverse views need to be exposed. Delphi is said to be particularly effective in circumstances where research problems cannot be precisely analysed but benefit from subjective opinion, where the study population is geographically and professionally diverse and where it may not be feasible to hold frequent meetings (as a result of time, cost and geographical constraints). The technique is capable of setting priorities, gaining consensus and generating ranges of opinions to inform decision-making and policy development. It recognises that group opinion is more 'valid' and 'reliable' than individual opinion, allowing individuals – as a whole – to deal with a complex problem (Linstone and Turoff, 2002). The method allows the researcher to remain remote and participants remain anonymous to each other, with the researcher able to gather information together between the participants and explore areas of consensus or disagreement. For these reasons it was considered suitable.

Iteration: a consensus forming tool

The Delphi method offers a multi-staged survey tool to facilitate structured communication and information gathering from expert participants. Its core characteristics are anonymity, iteration, controlled feedback and aggregation of responses/statistical group response (Kezar and Maxey, 2016). It is 'multi-stage' insofar as each stage builds on the results of the previous one. Over iterative survey rounds interspersed with feedback, the process works through phases of 'brainstorming', 'narrowing down' and 'ranking' to seek consensus amongst participants on an important and complex problem or subject where none previously existed (e.g. Brunt *et al.*, 2018). Several authors have compared normal group communication methods with Delphi and advocated its ability to produce more robust research results, based on generating more and higher quality ideas through group process (Linstone and Turoff, 2002; de Loe, 1995; Cole, Donohoe and Stellefson, 2013; de Loë *et al.*, 2016; Kezar and Maxey, 2016).

Delphi Variants

In recent decades there have been various applications and studies using modified Delphi techniques. In its 'true' and original form, the 'classical' Delphi is a decision-making tool, focused on forecasting and forming a consensus on an issue that is relatively unknown in scientific terms. Its iterative and remote process consults a group of 'experts' and through subsequent rounds of consultation conducted in light of the group's answers to the first, it aims to achieve convergence of opinion (Hsu and Ohio, 2007). There are also Delphi-based processes which aim to assess dissensus over a problem or issue (e.g. Steinhert, 2009) which include approaches such as the policy Delphi (de Loë *et al.*, 2016). The policy Delphi is a decision-facilitation tool using different arguments to gain informed group consensus and dissensus. For example, Bailey (2012) drew strongly on policy Delphi approaches (e.g. de Loe, 1995; Tapio, 2002) to develop future scenarios for a low carbon future to inform policy and decision-makers.

The classical Delphi method was considered the most appropriate basis for this research due to an open approach required at the outset, rather than defining specific (narrower) questions which would be more typical at the outset of a Policy Delphi (Kezar and Maxey, 2016). This enabled the participants to lead the direction of enquiry from a very open first round, which the researcher narrowed-down to explore areas of consensus through subsequent rounds of enquiry. There appears to be little guidance or criteria in the Delphi literature on deciding when consensus has or hasn't been reached. Hill and Fowles (1975) and other authors suggest 60% consensus but as discussed by (Bailey *et al.*, 2012) this was considered low, therefore 70% agreement was initially considered appropriate for this research.

Delphi enables participant 'buy-in' to the results as they can be involved in identifying solutions, offering immediate potential application of the research. There is a risk, however, that participants conform (de Loe, 1995; Rowe and Wright, 2011; Bailey, 2012) therefore recruiting a wide range of perspectives may help to mitigate this. A classical Delphi was initiated for this research, taking lessons learned from policy Delphi studies and other modified/quasi-Delphi examples from the literature.

5.6.3 Justification for selecting the Delphi-based method

Delphi methods have been used in a wide variety of sectors but most substantially evolved in the fields of health and social care, economics and education (Adler and Ziglio, 1996; Ludwig, 1997; Hasson and Keeney, 2000). In recent years they have gained more momentum for research around natural resource management problems and recently for a small number of marine and coastal

social science issues. For example, Cole, Donohoe and Stellefson (2013) describe the use of Delphi for an internet-based survey to gather a wide range of expert opinion on the international evolution of ICZM and Evans *et al.*, (2017) apply the technique to assess coastal defence options. The multitude of regulators and stakeholders that influence coastal space and make its governance complex, lends itself well to Delphi due to the methods ability to explore a wide range of expert opinions. The origins of the method's purpose for forecasting were also considered appropriate to the aims of this research, to inform future direction in UK coastal governance.

Based on the characteristics of Delphi reviewed above, the rationale for its use in this research is as follows:

i)   the ability of the researcher to reach a large range of different experts across a wide geographical scope, in this case the UK;

ii)   an open approach to questioning participants at the outset, enabling them to lead the direction of enquiry and narrow-down through iterative rounds of enquiry;

iii)   anonymity to encourage participants to freely express their opinions as well as reducing the risk of researcher bias;

iv)   controlled feedback between survey rounds to inform participants of the variety of views emerging. This iteration allows participants to consider, re-evaluate and clarify or modify their views;

v)   aggregation of participant responses, which allows for analysis and interpretation of data and enables participant 'buy-in' to the results. This presents an opportunity for them to be part of the solution, offering immediate potential impact and application of the research in their professional activity.

The process enables reflection and learning between the participants leading to indications of confidence level, importance and the desirability of different scenarios (Linstone and Turoff, 2011). In addition, the Delphi method lends itself well to this research due to the accepted use of online survey software to employ the technique (Steinert, 2009; Bailey *et al.*, 2012; Cole, Donohoe and Stellefson, 2013; Brunt *et al.*, 2018). The iterative survey process provides a route towards probability statements about the relationship between concepts developed from empirical data enabling the researcher to 'drill-down' from a wide range of opinions to a narrower set of statements. Iteration and feedback encourages participant 'buy-in' to the outcomes/recommendations which was considered valuable in the current scenario where there appears to be little agreed direction for coastal governance. To deal with variability, a wide

range/large number of participants are needed to gain a UK-wide perspective. A workshop was offered to dig deeper into participants' perspectives and test the outcomes of the survey process.

In relation to the published literature on Delphi the approach was called 'Delphi-based' to enable the method to respond to the results from each survey round (particularly the wholly qualitative R1). The following sections describe the research strategy and how the Delphi approach was adapted for this research.

5.7 Research Strategy

There are four phases to the research as shown in Figure 5.1 Flow chart illustrating the research questions, objectives and methods in four phases. The method and rationale for each of these phases is as follows.

5.7.1 Phase 1   Literature review

Desk-based review of socio-legal context and future options for coastal governance and stewardship.

Literature review taking a socio-legal approach and theoretical review of approaches which could enhance collaboration and stewardship, including: property rights and the public interest; commons theory and co-ownership models; and the existing regulatory, institutional, planning and policy context. Socio-legal options for improvement consider sustainability through participatory engagement mechanisms; trusteeship and the public trust doctrine; guardianship and legal standing. This phase was confined to desk-based review of literature.

5.7.2 Phase 2   Delphi-based method

Primary research to identify expert opinion about the current state of and future opportunities for, collaborative governance and stewardship.

Delphi-based mixed method approach involving a three-staged survey process with corresponding qualitative and quantitative analytical tools:

- R1 survey to explore expert opinion on strengths, weaknesses, opportunities and a vision for future governance to support collaborative governance and stewardship. An open qualitative survey approach.
- R2 survey focusing on themes from R1 to narrow down participants views on how to strengthen collaborative governance and stewardship. A more quantitative approach with opportunities to provide qualitative explanation for responses.

- R3 survey to verify levels of consensus on statements developed from the R2 survey results, through an entirely quantitative approach.

Participants' feedback from the open text-box questions in R1 were coded and quantified to inform design of the R2 scale and rank questions using Likert scales, with further explanation possible through text contributions. R3 was entirely quantitative step to verify consensus levels. The final output of the Delphi-based process was therefore quantitative data. The final statements which reached consensus were contextualised with qualitative data (participants' quotes) from earlier rounds to report the results.

5.7.3 Phase 3   Verification workshop

Testing the results and identifying actions.

Verification of R3 results was undertaken through a smaller group of self-selected participants. The statements which received highest levels of consensus in the final survey provided a focus for discussion of the results and identification of actions to help implementation. The workshop produced further qualitative and quantitative data based on table discussion sessions, which lead to voting on implementation actions, which were then ranked.

5.7.4 Phase 4   Evaluation

Consolidation and recommendations.

Evaluation of the evidence from Phases 1-3 involved consolidating knowledge from the desk-based research (Phase 1); together with results from the primary research into expert opinion (Phases 2 and 3); leading to the identification of recommendations (Phase 4).

5.8   Ethical Considerations

The intended methodology was subject to UWE ethics standards with approval gained in July 2017. Key considerations which emerged during the ethical review included:

- The retention of anonymity throughout the Delphi-based process. Data would only be accessible to the principal researcher working with Unique Identifier Codes (UID) for each participant across each online survey round and analysis. This would comply with data protection.
- The importance of anonymity was considered more important than the collection of demographic data (e.g. age/gender/ethnicity) which may have made potential participants

feel less anonymous and affected recruitment. Expertise across scale and sector was considered the primary criteria for representivity (see Section 6.2.1).

- Allowing participants to 'opt-out' at any stage of the research.
- Ensuring regular backups of data, its security, non-sharing and preparation for open access requirements on completion of the PhD.

High ethical standards helped to ensure integrity of the approach to participants throughout the Delphi-based process. Recruitment and information provided with the invitations to participate, involved:

- Consent embedded into the R1 survey.
- A Participant Information Sheet embedded into the R1 and R2 surveys, with background to the research including definitions of terms.
- A brief covering email inviting participation at each stage with links to previous stages in the process (e.g. reports) made available online through a dedicated webpage.
- Reporting only aggregated results and ensuring any quoted comments are anonymous.

The biggest ethics issue was the anticipated time demand on participants, therefore covering emails re-iterated the acceptance of opting-out whilst incentivising continued participation through access to the aggregated results, emphasising the iterative nature of the process to achieve consensus and commitment to share the findings. The conditions for engaging in the research which were to be met by the researcher and participant included:

- Agreement by the participant to read and understand the *Participant Information Sheet.*
- The opportunity to consider the information provided and have any questions answered satisfactorily (by the researcher).
- Participants to remain anonymous to other participants throughout the online surveys and their analysis.
- The principal researcher to hold information and data collected in a secure and confidential manner.

The Appendices contain a record of the *Participant Information Sheets* and invitations to the surveys and workshop.

5.9   Chapter Summary

Chapter 5 (research strategy and methodology) has illustrated the conceptual framework for the research and the overall aim to identify consensus and recommendations for direction in coastal

governance. The research questions, aims, and objectives were outlined together with the rationale for grounded theory based on the researcher's positionality within the field. Mixed methods were used for survey design and analysis, providing the opportunity to combine qualitative and quantitative approaches. Following an analysis of different tools and techniques, online surveys were chosen for their ability to engage a wide range of participants across the UK and retain anonymity, reducing the risk of researcher bias. A Delphi-based process was selected for these and other reasons, including iteration and controlled feedback which was anticipated would help to secure ongoing participation. Finally, the research strategy was outlined through four phases and ethical considerations described.

6   DELPHI-BASED SURVEYS AND WORKSHOP

This chapter describes the Phase 2 method which involved three online surveys and a workshop. The objective, design and analytical approaches for each of the three rounds of inquiry are described. The final section describes the purpose, approach to and methods used for the workshop which helped to verify the results from the iterative survey process and offer practical and applied routes towards implementation.

This chapter supports Phase 2 and Objective 2 outlined in Section 5.7.

6.1   Overview of the Delphi-based Method

Scoping for potential questions considered the whole Delphi-based process where R1 was generally about defining the problem; R2 identifying potential solutions; and R3 and the workshop confirming consensus on solutions and forming recommendations. There are few 'rules' about what format a Delphi-based survey should take in terms of the question type and structure; they should suit the purpose of the enquiry, abiding by the general rules of good design (i.e. clear, unambiguous non-leading questions and user-friendly). The 'added value' of a Delphi-based method is the iteration, with participants' feedback from each round informing design of the next round. In this case, R1 gathered almost entirely qualitative data and by R3 the results were almost entirely quantitative. As illustrated below in Figure 6.1, the Delphi approach encouraged narrowing down from open to closed questions to reveal degrees of consensus.

The iterative surveys involved the use of a wide range of IT software including:

- Bristol Online Survey (BOS) which was transferred to JISC by UWE between R1 and R2.
- Qualitative data exported from BOS/JISC (via Excel) into NVivo for R1 and R2 analysis, and into Excel/SPSS for data display (charts).
- Quantitative data exported from BOS/JISC (via Excel) to NVivo for analysis by participants attribute values (R2)
- Quantitative data exported from BOS/JISC into Excel and SPSS for analysis and presentation of results (R3).

The survey process and timeline are illustrated in Figure 6.2 and the explanation of each step given in the following sections.
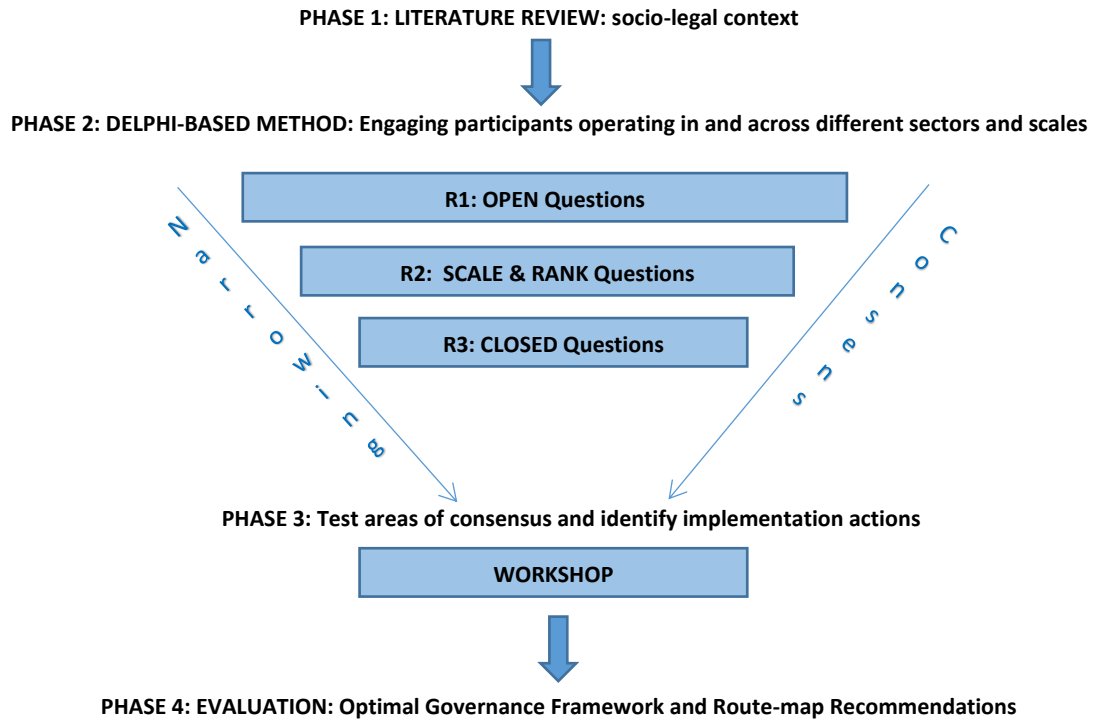
PHASE 1: LITERATURE REVIEW: socio-legal context

PHASE 2: DELPHI-BASED METHOD: Engaging participants operating in and across different sectors and scales

R1: OPEN Questions

R2: SCALE & RANK Questions

R3: CLOSED Questions

Narrowing

Consensus

PHASE 3: Test areas of consensus and identify implementation actions

WORKSHOP

PHASE 4: EVALUATION: Optimal Governance Framework and Route-map Recommendations

Figure 6.1 *Iterative survey rounds in the context of the four phases of the research.*
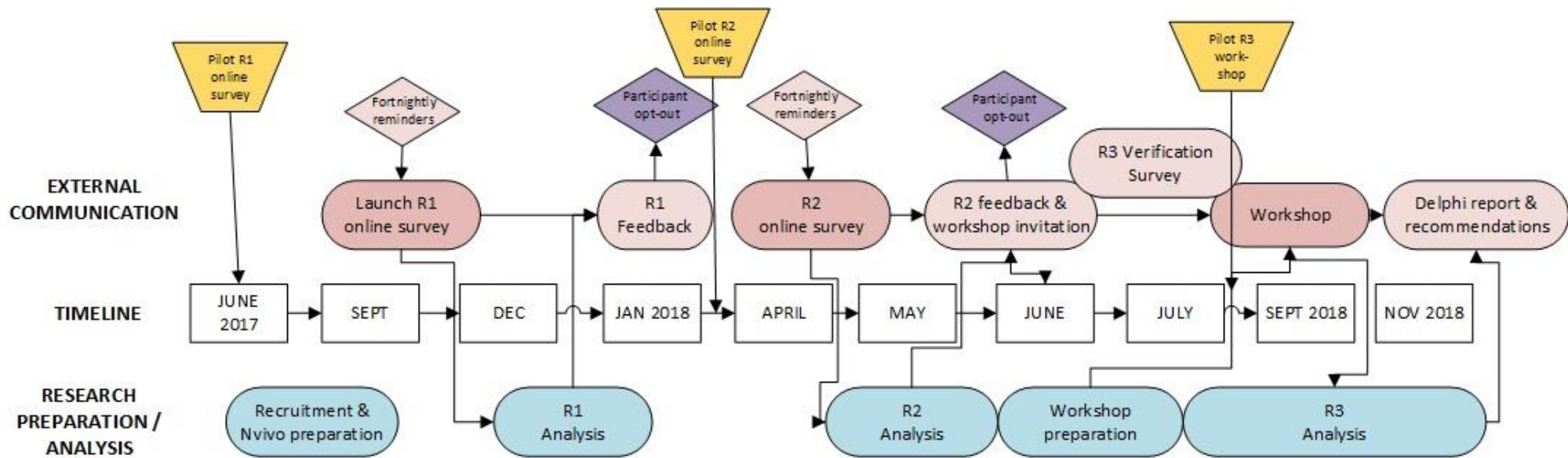
Figure 6.2 Delphi-based method design: survey steps and timeline.

6.2   Participant Recruitment

Due to the iterative nature of Delphi-based methods, new participants are not able to join after the first survey round. For this reason, a large number of potential participants were invited at the outset, to account for drop-outs and help ensure a good level of participation by the end of the process. The approach to identifying participants and their selection based on eligibility criteria are discussed in this section.

6.2.1   Representativeness

Delphi methods are based on the premise that a group of 'experts' are involved in a collective journey of forecasting. Comprehensive coverage is a key goal (Linstone and Turoff, 2011) with different techniques used to identify experts such as: by categories (de Loe, 1995); by undertaking a PESTLE analysis[108] (e.g. Steinert, 2009; Bailey *et al.*, 2012); and assessment of a participant's characteristics and qualifications (e.g. Ludwig, 1997; Hasson F, Keeney S, 2000). For this research, comprehensive coverage was important to ensure representation from a wide range of scales across the UK (national to regional and local) and sectors (government, industry, voluntary etc.). Broad categories were defined to aid extensive recruitment, based on the ICZM concept of vertical integration (i.e. scale) and horizontal integration (i.e. sector)[109] to help ensure good representation.

A participant selection matrix was used to help identify and target a broad range of potential participants, with the aim of achieving balanced involvement. The matrix was used for exploratory purposes to identify individuals and organisations operating across different sectors and scales, rather than as a strict exercise to obtain exactly equal numbers of participants from each part of the matrix. This approach to representativeness was considered more important than demographic data based on age, gender, ethnicity etc., considering the purpose of the Delphi-based method was to recruit balanced expertise.

6.2.2   Sample size

Delphi-based processes can involve a panel of experts from as few as twenty to over one hundred participants. Due to the wide range of perspectives sought, a sample size of 80-100 participants was considered a minimum for R1 to be representative of an 'expert community'. This would allow for some fallout through R2 and R3 and result in a manageable workshop size. The recruitment target

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[108] PESTLE: Political, Economic, Social, Technological, Legal and Environmental dimensions of the problem to be researched (Steinert, 2009, p.294).
[109] Common concepts in ICZM literature (see Section 2.6.1).

was based on five invitees from each sector and scale, plus three from each type of cross-sector mechanism at each scale (see Appendix 1A). With drop-outs anticipated, the aim was to invite 200-300 individuals based on the likelihood of an initial 30-50% consent rate. Following recruitment, participants' qualifications and years of relevant experience were used to screen out any that could not be considered to be an 'expert' for the purposes of this research.

6.2.3   Invitations

Invitations were undertaken in two tranches, to reach known and unknown potential participants, plus utilising known networks:

i)   Direct invitations to participants known or identified by the researcher (tranche A).

The researchers own network supplied approximately 150 email addresses of potential survey participants (utilising *LinkedIn* contacts and from previous and ongoing connections) which were tracked using the participant identification matrix (see Appendix 1A). Where there were no known contacts, or a lack of recruitment in certain categories, invitees were often identifiable through online research. In some cases, recruited participants offered to publicise the research to their networks or suggested another potential participant who was then invited directly by the researcher ('snowball sampling').

ii)   Indirect invitations to participants obtained via networks (tranche B).

Practitioner networks were also used to recruit a wider range of participants, beyond those known to the research team, to help balance recruitment. The participant identification matrix was regularly checked to track recruitment across a broad range of sectors and across the UK at different scales.

6.2.4   Recruitment process

Initial contact with potential participants outlined the purpose of the research, the stages involved and the anticipated use of the results, with the aim of securing their commitment to the whole process. The introductory invitation email (see Appendix 1B) described the research as 'An opportunity to participate in research to assess existing and new governance methods to support coastal stewardship in the UK. It will explore approaches to marine and terrestrial governance across the land-sea interface; opportunities, barriers and mechanisms to support collaboration; and how to improve coastal stewardship'. The survey invitation email included links to background information which had been included in the ethics application:

- R1 Survey invitation email linking to the Participant Information Sheet (Appendix 1B, 1C).
- R1 Survey, including a welcome letter and consent form (Appendix 1D).

At the same time as a personally addressed email, a second email was issued directly from the *BOS* survey software with a link to complete the R1 survey embedded in which was unique identifier (UID) code.

6.2.5   Eligibility

Selection criteria were embedded into the R1 questions to help ensure the recruitment of 'experts'. Eligibility criteria included participants' highest qualification, years of experience, their current job title/employing organisation and frequency of undertaking coastal governance/planning or management related work.

Any participant with less than 5-10 years' experience was checked against the other criteria which, if not strongly fulfilled, then they were not invited to participate in further Delphi-based rounds. To some extent, the questions acted as a mechanism for self-selecting participants - a few potential participants responded to the invitation to participate, having looked at the first few eligibility questions and said they were 'not competent' to answer them.

6.3   Round One (R1): Exploring UK Expert Opinion

This section describes the design and analytical methods for the first online survey. The overall purpose of R1 was exploratory: to identify strengths, weaknesses and opportunities associated with existing approaches to coastal governance; and participants' vision of future approaches. The aim was to identify areas of common ground between participants and obtain a series of statements against which consensus could be measured in R2. The questions for R1 were piloted and re-drafted to further inform the efficacy of the questions as well as the operability of the UWE-supplied Bristol Online Survey ('BOS') software.

The objective of R1 was to:

> Capture a wide range of views on the problem: strengths and weaknesses of the existing approaches to coastal governance - and identify opportunities for improving collaboration and stewardship.

6.3.1   R1 Design and Piloting

The R1 survey was launched through an email directly from the survey software alongside a personally addressed email from the principal researcher. When participants decided to do the survey they entered a welcome page providing an overview of the Delphi-based process and ethical statement before consenting (see Figure 6.3). This indicated that the survey sought personal ideas and opinions (not those of an employing organisation) and the three stages would involve them engaging in a journey from individual to shared views. Findings would be collectively and anonymously reflected back to them to inform the design of the next survey.

A range of potential questions were considered for the first round. Examples included 'What mechanisms would enable improvements in coastal governance?'; 'Does the involvement of coastal communities in governance need to be strengthened? and 'Can you foresee any legal options which would improve integrated management of land and sea'? However, it was decided to avoid any presumptions or risks of introducing ideas about the problem/solutions by keeping the R1 questions as open and short as possible. This was considered to be in keeping with the grounded theory approach (Section 5.4) and responded to comments made during the ethical approval process, and feedback from pilot participants.

The R1 survey was piloted with nine colleagues. Four were internal (from the supervisory team or other UWE doctoral researchers) and five were professional colleagues who had greater than ten years' experience in marine/coastal governance (working for government, academia, conservation, and water sectors at the national/devolved or local level). They were asked to test question efficacy through the online survey software and would not be invited to participate in the actual research.

Issues raised by the pilots included the risk that a SWOT-style analysis works better in a workshop than an online survey; so the survey was reduced to simple, open questions focused on strengths and weaknesses with opportunities re-
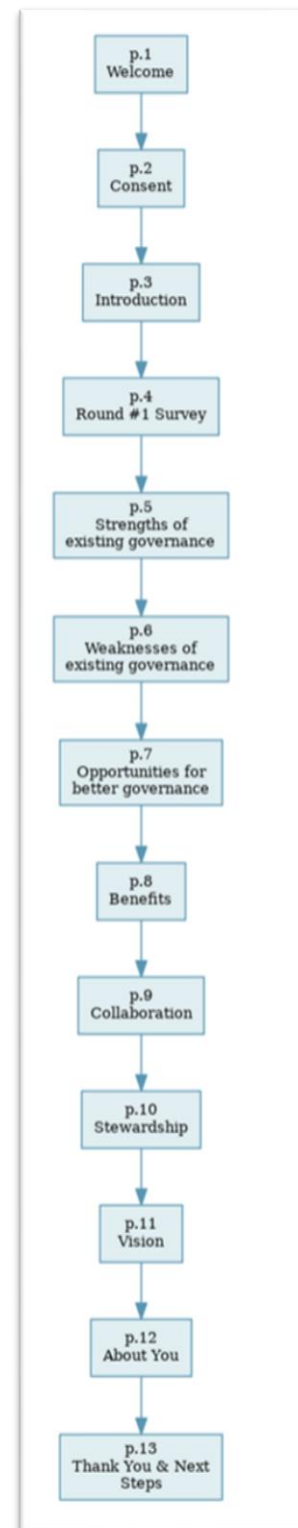

Figure 6.3 R1 Survey structure

phrased as 'how to improve' governance. It was felt that 'threats' would produce similar responses to the weakness question and it was more important to focus on what may motivate a change in approach. There was some concern about how participants would interpret the terms 'governance'; 'collaborative' and 'stewardship'; and that rolling these terms together in any question was too complex. Governance was used as a more familiar term than 'collaborative governance', with the more open opportunity to share their views on 'collaboration' and 'stewardship' separately. In addition, definitions of the key terms were arrived at, hyperlinked within the survey and provided in the Participant Information Sheet (Appendix 1C):

- **Collaborative Governance**: A process bringing together the state, private sector, civil society and the scientific community to engage collectively in decision-making.
- **Coastal Stewardship**: The outcome of governance processes which improve the management of coastal resources and the health of the coastal ecosystem for future generations.

Other minor adjustments were made in response to the pilot such as the addition of 'EU' and 'International' boxes to the scale question because even though the survey was focused on UK, many participants work at that wider scale; and 'landowners' was added into the sector question as input would be sought from coastal property owners such as The Crown Estate and National Trust. Finally, being able to see the whole survey before responding could have been desirable, therefore a manual copy was made available in 'MS word' format on request. Piloting of the first online survey also enabled familiarisation with the survey software and testing the 'answerability' of the questions. The main feedback was that it enabled a clear structure for the survey. Following piloting, there was no limit put on text box answers as the length of responses seemed acceptable and the size of the box on the screen encouraged succinct answers.

6.3.2 R1 Survey Questions

The strengths, weaknesses, opportunities and benefits questions followed a pattern of asking for up to three answers and an example for each, in the format outlined in Table 6.1 below. This was to tease out different issues and provide brief details with practical examples, rather than long paragraphs which would be harder to distil in the content analysis. An additional open text box was provided for further explanation if necessary and participants reminded that answers were to reflect their own opinion (not that of their employing organisation).

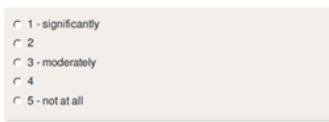*Table 6.1 R1 Question format for strengths, weaknesses, opportunities and benefits.*

Q.	QUESTION	QUESTION FORMAT
5	In your opinion, what are the <u>strengths</u> of existing approaches to marine and terrestrial governance for the coast? What's working well?	Open text boxes (3 + 3)
6	In your opinion, what are the <u>weaknesses</u> of existing approaches to marine and terrestrial governance for the coast? What problems exist?	
7	Looking ahead, can you identify <u>opportunities</u> for better approaches to marine and terrestrial governance for the coast?	
8	In your opinion, what <u>benefits</u>/added value could improvements in coastal governance bring?	

The format of questions on the concepts of collaboration and stewardship were presented in a different format as shown in Table 6.2. Participants were asked about the extent and meaning of the concepts before the drivers and mechanisms for them. For all answers an open text-box format was provided for up to three answers and for each of these, an additional open text box encouraging examples.

The final question asked about participants 'vision' by seeking a brief explanation or example of what better governance of the coast would look like in the future, with an open text box provided for this answer. Participants were also asked to provide information on their 'attributes' i.e. main area of interest, role, scale and sector, as described in Section 6.3.4.

The last page of the survey thanked participants for completing R1 and outlined the next steps. Continuity of engagement was emphasised as important to the quality of the Delphi-based process and results. A full copy of the survey is provided in Appendix 1D. Every survey response was associated with a unique identifier (UID) code. This could be linked to the participants' email address when data was exported from the survey software, with access only by the principal researcher to retain confidentiality.

Table 6.2 R1 Question format for collaboration and stewardship

Q	QUESTION	QUESTION FORMAT
9	To what extent is <u>collaboration</u> embedded in what you do? *Please select one answer on the following scale.*	Scale (5) 1 - significantly 2 3 - moderately 4 5 - not at all
9.a.	What does the concept of <u>collaborative governance</u> mean to you? *Please provide one or two sentences to offer your perspective.*	Open text box (1)
9.b.	Based on your own experience, what <u>drivers or mechanisms</u> encourage collaboration across the land-sea interface for coastal governance?	Open text box (3+3) Collaborative Driver/ Mechanism Comment/ Example 1. 2. 3.
9.c.	What (if any) barriers do you see for future collaboration across the land-sea interface for coastal governance? *Please provide one or two sentences to offer your perspective.*	Open text box (1)

6.3.3   R1 Analytical Strategy

Participants' responses from tranches A and B were merged and exported from the online survey software into NVivo qualitative data analysis software. R1 produced two main forms of data: descriptive text for qualitative data analysis; and attribute values associated with the characteristics of the participants. The latter helped to ensure that a broad range of interests, roles, scale and sector perspectives were input into the research. All participants' data was analysed together rather than grouped into smaller categories for comparison, due to the purpose of seeking areas of consensus amongst the whole group.

Qualitative Data Analysis

The approach to R1 design and analysis was underpinned by a grounded theory as described in Section 5.4. Phase 2 of the research applied an emergent approach to analysis of the R1 qualitative data through inductive coding. Content analysis evolved from initial to more focused coding alongside memo writing and sorting. It guided the analysis through an inductive and iterative approach of constant comparison between emerging codes (nodes) assigned to the participants' responses. Guided by the grounded theory approach, immersion in the data lead to a coding

framework determined by the structure and content of the results that was 'true' to the participants. The very open format and loose design required heavy interpretation, therefore a coding frame (Miles and Huberman, 1984) emerged by assigning participants responses to 'nodes' and sub-nodes as the analysis progressed, as illustrated in Table 6.3.

Table 6.3 Example of initial coding for 'strengths of existing approaches to governance' (R1 Q5)

Parent Node	Initial Coding for Strengths of Existing Approaches to Governance (R1 Q5)		
	Sub-node 1 'sibling'	Sub-node 2 'child'	Sub-node 3 'baby'
S T R E N G T H S	Legislation	Characteristics of legislative framework	Comprehensive Developing-improving Joint understanding of obligations Multiple agencies
		Coastal concordat-joint licencing	Robust
		EC	LSI in MSP Directive N2K site designation WFD, MSFD
		Localism Act	
		Marine Acts	Marine Planning Partnerships Marine Policy Statement MMO MSP / Co-location
		NPPF	
		Two planning systems	
		UK Conservation Designations-MPAs, MCZs	
	Institutions	EA – Flood and Coastal Defence IFCAs Institutional characteristics LAs SMPs-Coastal Groups	
	Variety of frameworks		
	Local engagement-management		
	Coastal Partnerships		
	Approaches to governance (formerly 'Characteristics of')	Awareness Collaborative-joint working Communication Community Engagement Open Participatory Stakeholder engagement	
	Data-Info-Knowledge-Monitoring		
	Adaptation-Working with natural processes		
	Integration		
	Vision-Principles		
	Sharing good practice		

A process of constant comparison meant that as participants' responses were analysed they were cross-checked and assigned to nodes previously identified from other participants responses. The extensive coding and visualisation exercises led to each node gaining quantitative values. This began the transition from purely qualitative to quantitative data (Brannen, 2005; Molina-Azorin and Fetters, 2017). Statements emerged to express areas where participants held similar perspectives, quantifying data from qualitative content analysis with the aim of convergence in data and elaboration of details (Vaismoradi and Snelgrove, 2019).

The total word count from the participants' (*n*=173) responses exceeded 79,000 and the average response contained around 450 words (varying from between 300 and 1400 words each). Just under 9,000 references were assigned to nodes from the R1 qualitative answers to Q5-11, which were coded into 215 nodes and sub-nodes.

6.3.4   Participants attribute values

The following data about participants was obtained in R1 to ensure a good balance of representation, as introduced in Section 6.2.1. Attribute values are listed with their criteria shown in italics:

a)   *Main area of interest*

To ensure balance of perspectives across the land-sea interface, participants were asked to identify whether their main area of interest was *marine* and/or *terrestrial* or specifically *coastal*. Some replied '*all*' or suggested two of the three.

b)   *Scale(s) of interest(s)*

To ensure good representation from local to regional and national, participants identified their scale of perspective. Local scale options included reference to a *local community/ecosystem* rather than an administrative area, to reflect the position of participants working for a particular stretch of coast or an estuary. Devolved administrations (Wales, Scotland and Northern Ireland) were recognised as *national* scales alongside England, as well as *regions* within them. The *international* perspective was offered as there were a handful of very knowledgeable invitees working outside the UK with very good experience of coastal governance in the UK.

c)   *Sector(s) of interest(s)*

Through the evolution of ICZM and marine planning there is a widely understood range of sectors engaged in coastal and marine governance, although no definitive list is universally applied. A comprehensive range of sectors were identified and listed to inform participant selection as shown in Table 6.4 Participants' attribute values.

d)   *Sector or multiple sector perspective*

To identify the breadth of perspective, participants were asked whether they considered their primary interest to be within a single-*sector* or if they held a *multi-sector* perspective.

e)   *Engagement in multi-sector initiative(s)*

Participants were asked in more detail about any engagement they had in *multi-sector/cross-sectoral* initiatives, based on the knowledge that governance and stewardship activity is often co-ordinated by non-statutory initiatives and partnerships.

f)   *How they described their role(s) in relation to sector and multi-sector initiatives.*

Participants were also asked what (if any) *role* they had in relation to their sectoral and multi-sector/cross-sector interests, for example as an employed regulator, advisor/consultant, as a user or in a voluntary capacity as a trustee or local community representative.

The above criteria formed participants attribute values to help ensure a wide range of expertise and for potential use in the analysis.

Table 6.4 Participants' attribute values

Main area(s) of interest	Scale of operation	Sectoral Interests Participants' were asked (Q14) 'Are your interests primarily *within* a sector or across *multiple* sectors?	Role
Marine Terrestrial Coastal Other (please specify):	International European UK-wide Scotland Wales NI England-wide England (NW region) England (SW region) England (NE region) England (SE region) County/sub-region Local community/ecosystem Other (please specify):	**Sector:** Business/ industry or commercial Community interest group/user Conservation (environmental protection, heritage) Extractive industry (aggregates, oil) Fisheries/aquaculture (commercial, recreational) Government/regulatory Landowner/tenant/farming or land management Leisure (tourism, recreation) Non-governmental organisation/ voluntary sector Port/harbour authority or navigation Research/ science Utility or service provider (water/energy/transport) NONE (role/interests are mainly cross-sectoral/multi-stakeholder or neutral). Other sectoral interest (please specify)	Regulator Manager Employee Volunteer Trustee Director Advisor/ Consultant Researcher Practitioner Local community rep. User None Other (please specify)
		Multi-sector/cross-sectoral: Coastal/ Estuary Partnership Coastal Community Team Coastal AONB/ Heritage Coast/ National Park Coastal Group (for SMP/monitoring) Neighbourhood/Community Plan Group Local Enterprise Partnership Local Nature Partnership Landscape Partnership Rivers Trust River Basin District Liaison Panel Other local community-led initiative Other cross-sectoral initiative (please specify):	Regulator Manager Employee Volunteer Trustee Director Advisor/ Consultant Researcher Practitioner Local community rep. User None Other (please specify):

6.3.5   R1 Reporting and feedback

Participants in the R1 survey received a Participants' Report (January, 2018, *21pp*) titled 'UK Coastal Governance – Future Insights'. It reported the number of participants comments (coding references) assigned to each of the 'sibling' sub-nodes was used to report the headline results, represented as

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percentages in pie-charts. The frequency of coding references to 'child' sub-nodes beneath them, were reported through summary paragraphs indicating the percentage and number of comments assigned to each. The R1 report was shared with participants with an invitation to comment on the results (Appendix 1E and 1F). A copy of their own survey response was provided at the same time to reflect back their individual response. This provided a verification step in the Delphi-based process. It gave participants an anonymous insight into the results and an opportunity to comment on the emerging consensus around themes, and whether it adequately reflected their perspective. Feedback from participants was positive with many welcoming sight of the results, confirming their position or providing further observations to inform the design of R2. A few participants suggested minor amendments to their original contributions such as grammatical corrections or further points for clarification, but these did not materially affect the analysis or results. A summary of highlights from the R1 report were made available online[110] but the full R1 report remained confidential to the recruited participants. The results were used as the basis for designing the statements to be tested through the R2 survey.

Between R1 and R2 a 'UK Coastal Governance' webpage was set-up as a way of keeping participants up to date with the progress of the research and related news. This included blogs by the principal researcher on related subjects such as the English Coastal Challenge Summit, commentary on European marine planning and coastal management frameworks in other countries (Appendix 6).

6.4   Round Two (R2): Future Direction for UK Coastal Governance

The purpose of Round two (R2) was to visualise potential solutions to future approaches for coastal governance, based on the common ground identified in R1. This section describes how the emergence of five themes from R1 informed the structure of the R2 survey questions and analytical strategy.

The objective of R2 was to:

> Explore areas of consensus which emerged from R1 and test drivers/mechanisms which offer solutions to enhance collaboration and stewardship.

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[110] Available at: http://www.watersecuritynetwork.org/uk-coastal-governance/ (last accessed 24.03.2022)

6.4.1   The emergence of five themes

As the analysis of R1 answers progressed, patterns emerged between the answers to each question to form a common set of nodes and sub-nodes, as illustrated in Table 6.5. This set of common theme nodes underpinned the emergence of five themes around which the R2 questions were structured.

Exploration of the data though this approach to coding enabled in depth analysis of a large amount of data. For example, the strengths of existing approaches to governance (R1 Q5) alone provided >1000 references coded across 79 sub-nodes. The merging of nodes across the whole dataset not only made the analysis more manageable, but enabled more scrutiny on specific lines of enquiry.

From the strengths and weaknesses, opportunities and benefits questions in R1, there were three themes which repeatedly received the most comments from participants: the approach to governance; institutions; and the legal/policy framework. Mind-maps were used to conceptualise the links between nodes within each theme. The source/origin and justification for each of the R2 questions was documented to capture their purpose and potential application in the research. Based on the common themes which emerged through the R1 analysis (Table 6.5) and the assertions from the literature review, five themes were identified for the design of the R2 survey, as described below. These informed the structure for the R2 survey (Appendix 2C).

Table 6.5 Common theme nodes which emerged from analysis of the Delphi-based R1 survey

Common nodes (R1)		R1 RESULTS Common theme (informed R2 structure)
Sub-node: sibling (headline % in R1 report)	Sub-node: child (summary paragraphs in R1 report)	
Legal - Statutory Requirement	EC Directives Marine Acts Marine Planning Terrestrial Planning Localism Act-Duty to Cooperate LEGISLATIVE CHARACTERISTICS UK Conservation Designations-MPAs, MCZs	Legal-policy framework
Policy framework	Coastal Concordat-joint licencing NPPF	
Institutions	EA IFCA MMO NE LAs EMS SMP CE Cluster Organisations INSTITUTIONAL CHARACTERISTICS	Institutions
Approach to Governance	*1-Top-down (informing people)* *2-Consultation* *3-Good communication* *4-Stakeholder engagement* *5-Participatory* *6-Collaborative-joint working-Opportunity to connect* *7-Partnerships inc Fora & Coastal Partnerships* *8 Co-management* *9-Bottom-up community engagement - ownership - identity* *10-Open* Statutory & Non-Statutory Facilitation-Chair-Leadership-Local Champions Accountability-transparency-openness-communication-Trust Project based Integrated-ICZM-Ecosytem Services Voluntary approach Long term approach Pro-active-opportunity to connect-network Variety of frameworks	Approach to governance
Evidence-Data-Info-Knowledge Monitoring-Evaluation Training Expertise	Sharing good practice	Evidence/data
Resources	Efficient use-Effectiveness Funding-Cost	Resources and incentive
Economic-Commercial	Developers-development	
Incentive-Willingness-Drive	Aim-Vision-Principles-common ground Common-enemy-conflict Health & Well-being	
Coastal Ecosystem-LSI Protection–coastal change, pollution Adaptation–working with natural processes Uncertainty Innovation		Coastal Ecosystem
Fisheries		
Landowner(ship)		
Neutral		
Public Interest-Benefit-Trust		
Common-commons-ownership		
Legal enabling powers		

Theme A   Approach to governance across the land-sea interface

Many of the comments from the R1 answers inferred approaches to governance from a more top-down or bottom-up perspective. As shown in Table 6.5 (row 6), responses were allocated against a scale of approaches to governance, which required further testing with the participants. In R2 they were asked to rank on a simple 3-point scale (to force choice), their support for top-down/bottom-up approaches, compared to bringing them together (R2 Q3). They were then asked to rank named approaches to engagement in decision-making (R2 Q4) against a 7–point scale of least to most important, from a top-down 'communicating decisions' approach to a bottom-up 'community led decision-making' approach. Finally, other factors influencing the future approach to coastal governance (R2 Q5) were listed, and participants asked to rank their level of agreement against listed criteria. These were based on the highest frequency 'child' sub-nodes from the R1 analysis: strengths and weaknesses which had received at least 15 references; opportunities and benefits which had received over 20 references; and drivers/mechanisms for collaboration and stewardship which had received over 25 references.

Theme B   Collaboration to Strengthen Coastal Governance

The second theme was strongly connected to the R1 questions on collaborative governance (R1 Q9) because over 70% of participants indicated that collaboration was significantly embedded in what they did. However 36% (*n*=60/168) of participants referred to the lack of incentive to collaborate and views differed on *how* to go about collaborative effort. R2 therefore sought insights into the benefits of collaboration (R2 Q6) through an open question and insights into any disadvantages to a collaborative approach (R2 Q7). To focus responses into a quantitative response, the drivers and barriers to collaboration (R2 Q8, Q9) which were identified in R1, were reflected back to participants in R2 with two lists of possible factors. These were based on sub-nodes from the R1 analysis. Participants were asked to rank where the least or most strengthening was required to improve the effectiveness of collaboration across the land-sea interface.

Theme C   Organisations and the Institutional Framework

The third theme which emerged from the high frequency of references in R1 was about the role of different organisations and the complexity of institutional arrangements (elaborated in Chapter 2). This included a lack of understanding, co-ordination and overlaps. Participants suggested this can result in poor accountability and a lack of trust or transparency in decision-making, presenting barriers to collaboration. R2 therefore asked participants to express the extent to which named

organisations are driving collaboration (R2 Q10) for the coast, on a scale of 1-7 from those making 'little' to those making 'substantial' collaborative effort. The list included 18 different types of organisation from central government to agencies in the devolved administrations, NGOs, consultants, regional and local partnerships. Based on responses from R1 (Q9b) seven drivers for the collaboration were offered and participants asked to rank the characteristics of effective collaboration (R2 Q11) from least to most effective. They were then asked to rank seven actions to improve clarity and understanding about organisations roles and responsibilities (R2 Q12), such as streamlining powers or creating a single overview role for coastal matters.

Building on the 'approach to governance' theme (A), the last two questions in this theme asked about leadership for coastal governance (R2 Q13) and who is best placed at the UK, national, regional and local scales. Finally, because R1 participants had indicated that collaboration at the local community/ecosystem scale (R2 Q14) warrants greater clarity, they were asked which of the initiatives operating at this scale (e.g. Coastal AONB, Harbour Authority, Marine Planning Partnership) should be prioritised for support, by selecting their top three out of seventeen listed. Finally, they were asked an open question about the common characteristics of the initiatives which most strongly drive collaborative efforts at this local scale (R2 Q14b).

Theme D   Marine and Terrestrial Planning for the Coast

The fourth theme focused specifically on planning, due to many R1 participants commenting on the strengths and weaknesses of the (relatively new) marine planning system, compared to the (more mature and prescriptive) terrestrial planning system. In R2 participants were asked about the effectiveness of marine planning for the coast (R2 Q15) on a 1-7 point scale. The UK Marine Acts contain a requirement to 'seek compatibility' between plans, so participants were asked for their views about collaboration between marine planning authorities (R2 Q16) and from a list of seven factors about its characteristics (R2 Q17), asked to rank them from most to least important. With reference to the scale and connectivity between marine and terrestrial plans (Q18), the next question asked which measures would be most helpful to ensure representation of coastal stakeholders and communities in planning (e.g. strengthen marine planning at the local scale, voluntary coastal plans, more specific regulation for coastal activities). Finally, the lack of integration and leadership for coastal planning (R2 Q19) was identified as a significant weakness in R1, therefore in R2 participants were asked to rank whether they would support stronger direction coming from the UK/national/regional/local levels. An open explanation could then be given for their answer on any other ways to do this (R2 Q20).

The fifth theme in the R2 survey explored how the conditions for promoting coastal stewardship (R2 Q21) could be improved, based on the needs shown in R1 (i.e. stronger and clearer frameworks, reducing fragmentation, simplifying the complex institutional framework and giving stronger backing to local codes and byelaws). Participants identified on a scale from 1-7, the extent to which the implementation of twelve named mechanisms currently promote stewardship (e.g. UK HLMOs, designations, management, local byelaws, the coastal concordat). A short explanation could be given and participants asked for any other ideas to incentivise stewardship. The last R2 question proposed a statement to identify the extent to which participants supported a place-based approach to governance (R2 Q22).

6.4.2   R2 Design and Piloting

The objective of R2 was to explore areas of consensus based on the participants' responses to R1. The R2 survey invitation email reminded particiapnts that ethical consent had been given when responding to R1 and that ongoing participation was optional (Appendix 2A). However, participants were encouraged to respond due to the invitation to participate only extending to R1 participants. It was clearly stated that this was the second in a three stage survey process involving experts from many sectors and regions across the UK to comment on future approaches to coastal governance.

An updated *Participant Information Sheet* was issued with the R2 survey which included definitions for collaborative governance and coastal stewardship and (in response to the suggestion of a R1 participant) a background page on '*What is the Delphi-based process*?' explaining its core characteristics and links to key references. A definition and background references were also offered on place-based governance which was introduced in R2: "*For the purposes of this research, a place-based approach to governance is defined as bottom-up and focused on meeting the needs of a local community and ecosystem to support sustainable livelihoods".* These definitions and the R1 report were available through hyperlinks from the *Welcome and Introduction* page of the R2 survey. The updated *Participant Information Sheet* (Appendix 2B) also reminded participants what they could gain from participating; the researchers commitment to anonymity and use of the data, with contact details of the research team. An overview of the R2 online survey structure is shown in Figure 6.4. An additional feature of R2 was focusing participants towards expressing their primary interest across scale and sector. In R1 participants were given the option of selecting all the scales/sectors which applied to their interests. In order to offer the opportunity for analysis by scale and sector

variables, R2 asked for participants' *primary* interest for scale and sector. To support this, a note was provided to participants on using their professional judgement and personal experience:

"*Most of the following questions require you to generalise from your own experiences, remembering that your participation in this survey is based on your overall personal knowledge and professional judgement - rather than reflecting on your immediate/most recent day-to-day activities or the position of any organisation*".

The draft R2 online survey was piloted 'internally' with six colleagues at UWE Bristol and 'externally' with nine professionals from academia, government, policy, conservation, consultancy and practitioner perspectives from national to local levels. Some had also piloted R1 but an additional two internal and five external parties were asked to pilot R2 due to the more complex structure of the survey.

The following issues were raised by the pilot:

- Clarification that the scale of the survey was UK-wide.
- Ambiguity in the meaning of questions which led to the strengthening and tightening up of wording.
- The 'don't know' option was removed on several questions to force choice, but open text boxes provided for optional explanation.
- The instructions and operability of the online survey (e.g. saving and returning) was made simpler.
- Indication of time for completion extended from approx. 20 to 30 minutes based on experience from the pilot.
- Tension over whether and when to encourage scale or rank answers.

Where multiple factors are important and participants were asked to choose between variables in order of importance through ranking, there was potential for frustration. This was discussed amongst the supervisory team and considered acceptable because most variables had already been identified by multiple participants through the R1 survey. By design, Delphi-based studies force a narrowing of views towards consensus and the choice between scale and rank questions brings this to the fore. Scale questions were only used where the variables were considered to be independent.

Figure 6.4 R2 Survey structure

Several participants in the pilot commented how interesting it would be to see the results. However, one observed tension between the complexity of the issues surrounding coastal governance and the

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simplicity of the questions. To alleviate this, open text boxes were offered after each question to invite additional explanation. This meant that qualitative data was collected alongside quantitative data from the scale and rank questions. Overall the tension between the complex subject and simple questions in R1 was considered a limitation of the survey approach, but R2 questions were much more specific and the workshop would offer more opportunity to go into discussion.

As outlined in the Delphi-based steps and timeline diagram (Figure 6.2 Delphi-based method design: survey steps and timeline), participants were provided with a custom URL link to the R2 survey which had their UID embedded to link their new responses with the previous round. Participants who requested to opt-out were removed from the online survey software so they did not receive reminder emails.

6.4.3   R2 Survey Questions

Most questions in R2 were scale or rank questions using a seven-point Likert scale which were carefully considered depending upon the nature of each question. A unique decision was made for each question depending upon the question and type of variables. The scale (S) option was chosen when the answer required expression of agreement for each variable which was considered to be independent of the other variables under the same question. The rank (R) option was chosen when the list of variables was connected, and the degree of support for different options would be compared to each other. Ranking forced participants to make some difficult choices between variables. Open text boxes (O) were regularly given in the R2 survey to enable participants to clarify their answers and express any concerns about the scale or rank limitations to their responses. An overview of where scale and rank options were used is provided in Table 6.7 (at the end of this chapter). For both scale and rank questions, a 7-point Likert scale was selected for most of the answers as it provided a good balance between refining the participants views, whilst giving more variation of expression than would have been possible on a 5-point scale. A 10-point scale was considered more involved than was required to elicit the necessary response. A 3-point answer scale was used three times where a more definitive response was required.

6.4.4   R2 Analytical Strategy

The theoretical approach was introduced in Chapter 5.4. R2 brought qualitative and quantitative data together, requiring mixed methods of analysis. Any potential for an 'unholy marriage' (Tapio, 2003) of qualitative and quantitative processes was addressed through the R2 results. They provided a more deductive stance to narrow down the issues identified in R1 to areas where consensus was

most apparent. The methods employed for the quantitative data analysis are described here, through the use of *SPSS* and *Excel* software to support the analysis and presentation of results. The qualitative and quantitative data was merged into the R1 *NVivo* database to enable cross-referencing of participants' responses between the rounds.

R2 survey data was explored as a whole dataset in line with the research aims, to identify a UK-wide insight into future approaches to coastal governance. Descriptive statistics were used to report participants' responses and considered adequate to quantify the degree of agreement with the qualitative statements that were offered. The use of inferential statistics to determine whether the research participants (sample population) were representative of the entire population was explored but not utilised in the discussion of the results for several reasons. Firstly, comparison between different types of participants was not the focus of the research which aimed to elicit consensus (not differences) between the whole sample population. Seeking consensus through iterative survey rounds meant that data was not 'normally' distributed, against which skewness and representativeness could be statistically tested. Secondly, although the response rate was very good (R2 *n*=115), the group of Delphi-based 'experts' could not represent the 'whole' community of diverse coastal interests. They offered insights based on their unique areas of professional experience for which data on their attributes was obtained (sector, scale, area of interest). There were not enough (under 20) participants with the same set of attribute values (common sector and scale characteristics) to present statistical significance between participants. To increase the number of participants per scale/sector type, they were grouped for analysis (e.g. devolved administrations compared to England for scale; and conservation compared to private for sector)[111] and weighted to explore potential variation between the major types of participants (see Appendix 2E, p.106). Although some analysis was undertaken on this basis, for reporting it was considered potentially misleading to inflate the views of a minority group alongside a majority who were better represented in the data. Finally, the use of rank questions (rather than scale) to force choice in many of the R2 questions (as described in Section 6.4.3) limited the accurate interpretation of inferential statistics. This was because participants were not always asked to express their strength of support for individual statements, but in relation to others included in the same list. Although this presented a limitation to the analysis[112], it enabled the most prominent issues to come to the fore ahead of the

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[111] The results of this were available in the R2 report annexes, but not within the thesis for the reasons given herein. The scale and sector groups created for R2 data exploration are provided in Annex F to the R2 report (Appendix 3 of the thesis).
[112] The use of rank questions in R2 also limited statistical comparison of results between R2 and R3 to test response stability.

R3 verification survey. The R2 response data is therefore presented collectively in the thesis, as indicative of a large and varied expert group, with their characteristics (attribute values) reported alongside the results where they are quoted.

6.4.5   R2 Reporting and Feedback

Extensive analysis and reporting was undertaken on the combined R1 and R2 data, culminating in participants being presented with a short report '*R2 Delphi-based Participants Report (July, 2018) UK Coastal Governance – Future Insights*' (Appendix 2E). The report contained summary statements designed on the basis of the R2 responses which received the highest levels of consensus. Background detail from the analysis by theme was provided through linked Annexes A to E.

As with R1, participants were issued with a copy of the R2 report together with a copy of their individual responses for reflection, to consider how their own perspective related to the consensus views emerging, with the opportunity for further comment. Feedback was received from 15 (out of 115) participants. Three apologised for opting out due to other time commitments and/or not enough specific expertise. Five reported technical issues to do with ranking or accessing the URL link. Subject-related feedback included participants suggesting that if the same questions were asked on a different day they could provide a different response. Several participants struggled with deciding which spatial scale to 'represent' especially if they held multiple roles. The biggest issue reported was the ranking of answers where participants found it difficult to choose between options and/or didn't feel the issues were comparable and would have preferred to indicate on a scale their degree of support for issues independently of each other, but as described above the ranking was a deliberate tactic to force the most important issues to the fore and it was expected that some participants would find this uncomfortable. The functionality of the survey obtained positive feedback.

6.5 Round Three (R3): Verification Survey

The purpose of R3 was to verify through an entirely quantitative online survey the degree of consensus (or otherwise) associated with statements identified from the R2 results. This section describes the final 'verification step' of the three rounds of the Delphi-based process.

R2 survey design objective:

> Confirm consensus which emerged from R2: mechanisms which support collaboration and how they could be enhanced to support stewardship.

The purpose of R3 was to verify that the statements identified through the R2 survey and analysis had obtained stable levels of consensus and provide the basis for discussion in the workshop. As with the previous two surveys, the R3 verification survey was issued through a direct invitation email together with a second email from the online survey software, with a unique link to retain anonymity (Appendix 3A). It included an overview page followed by 19 verification statements across the five themes, to which participants could express their level of agreement. An outline of the survey structure is shown in Figure 6.5.

6.5.1 R3 Design and Piloting

The R2 results formed the basis for summary statements to be verified in R3. Most questions were very similar to the R2 questions to obtain response stability. Piloting of R3 was undertaken by two people from the supervisory team since the operability and format was simple and consistent, plus participants were by now familiar with the survey software and approach. The invitation email is provided in Appendix 3A.

6.5.2 R3 Survey Questions

All questions were provided with closed answers, to obtain entirely quantitative data. Participants were asked to indicate their level of agreement on a 4-point Likert scale to force choice between strongly disagree/disagree/agree/strongly agree, with participants unable to 'sit on the fence' thereby narrowing down the results further. A 'Don't Know' option was offered in case there was a reason a participant could not agree or disagree at all. Each participant was provided with a copy of their own R2 response at the same time as the R3 survey, to encourage them to consider their own position relative to the group (Appendix 3B).

6.5.3   R3 Analytical Strategy: Defining the Delphi-based Method

With three survey rounds completed, it was possible to analyse the results between and across the qualitative and quantitative data, which was combined to aid analysis. This also enabled assessment of whether the process met the criteria intended from an iterative Delphi-based study. Three 'qualities' of Delphi-based results which are discussed in the literature (Section 5.6.2) are consensus, response stability and statistical group response. The degree to which the research met these criteria is considered here and further elaborated in the results chapters for each theme.

Consensus

There appears to be no standard definition of what consensus level is adequate in a Delphi-based study (Section 5.6). Depending upon whether the results are expressed through descriptive or inferential statistics, a wide variety of approaches are taken. The literature offers methods commonly used for testing consensus between the survey rounds based on the typical characteristics of Delphi studies. The focus of this research was on the creation of statements which emerged from the R1 qualitative data analysis for R2 testing, which were then verified through R3. For the purposes of this research it was considered that any R3 statement obtaining over 70% agreement ('agree' and 'strongly agree') was an indication of support for that statement. However, when the R3 results were obtained, all but one of the statements obtained this level of consensus, therefore attention turned to the statements which received at least 80% and in many cases over 90% agreement, with greatest attention

Figure 6.5 R3 Survey structure

given to statements at either end of the scale (strongly agree/strongly disagree) in the discussion.

Results from the R3 verification survey were used as the basis for the workshop discussion, but for the thesis, the evolution of consensus was considered across all three survey rounds. The quantitative R2 and R3 data could be cross-checked 'backwards' with the qualitative data from R1, to elaborate and enrich the findings with quotes from participants to exemplify consensus and highlight the nature of any outliers (based on participant attributes). By tracking across the database the combined R2 and R3 quantitative results to the R1 qualitative results, the results focus on the
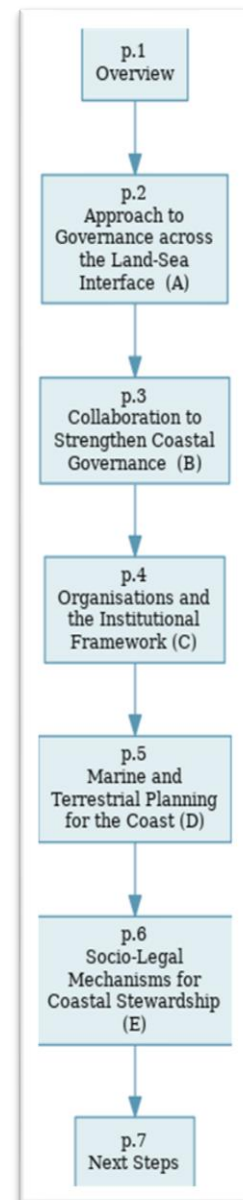
statements that obtained the highest consensus, elaborated by quotes. This made the most of bringing the quantitative and qualitative data together.

Response stability

Response stability is easier to test in a Delphi study which starts with given statements. They are then tested repeatedly amongst the participants and results can be compared between rounds, with convergence detected quantitatively. In this research, because R1 started in a completely open qualitative manner, the statements evolved for R2 and were then tested in R3. Due to the year-long iterative process, it was not considered appropriate to run another survey due to the risk of participant fatigue. Therefore, response stability in percentage terms could only be tested across two rounds. Transition from a 7-point to 4-point Likert scale (for the reasons identified above) meant that it was not possible to compare the quantitative results directly or statistically between R2 and R3. However, because there was good continuity between the wording of R2 statements and their testing through the R3 questions, broad comparison of consensus levels between the final two rounds could be assessed for response stability. The overview of survey rounds and questions shown below in Table 6.7 illustrates the commonality between R2 and R3 questions. This is reported and discussed in further detail in the summary of results tables for each theme in the results chapters.

Statistical group response

The need for statistical group response was not considered fundamental to this research because the overall purpose was to gain future insights based on the whole group of experts. Therefore group response was reported as a whole, in percentage terms. Quotes were used to elaborate participants' perspectives with their unique identifier code (UID) provided alongside. The participants' attributes obtained in R1 and R2 enabled comparison between individuals and sub-groups during the analysis of results, but for the reasons described in Section 6.4.4, the thesis draws primarily on the overall consensus levels for the expert group as a whole. The limitations of the research method and analysis in relation to these three typical Delphi 'qualities', meant that the research is reported as utilising a Delphi-based approach rather than a pure Delphi study.

6.5.4   R3 reporting and feedback

The R3 results indicated consensus expressed as percentage scores for each statement. These were presented to participants alongside an invitation to the workshop and used as the basis for discussion (Appendix 3A).

6.6 Workshop: Exploring Implementation Actions

The R3 participants' results (*n*=89) effectively ended the Delphi-based process and were taken into the workshop for discussion in September 2018, where those who attended no longer remained anonymous. The purpose was to explore areas where good levels of consensus had been found, to enable exploration of actions for their input into policy and/or practical delivery.

The objective of the workshop was to identify implementation actions. The workshop brought together a smaller number of participants (*n=21*) who had actively engaged in the three online surveys[113], were especially interested in the outcomes of the research, and also available to attend in person at UWE Bristol (Frenchay Campus). Participants explored aspects of existing and new governance opportunities and participatory engagement mechanisms to support coastal stewardship - including enablers, drivers, challenges and barriers to efficient and effective implementation.

6.6.1 Workshop design and piloting

Initial ideas for the workshop included asking workshop participants to comment on potential implementation actions presented by the researcher, based on the R3 results. However, following a pilot session with a group of six UWE academics, it was decided to offer a more open format led by the participants.

Each participant who agreed to attend the workshop was provided with the collective results of the R3 verification survey one week in advance. Joining instructions included a request to bring a copy of their own R3 response for comparison, together with the workshop programme and directions. The programme (Appendix 4B) involved the following activities which are described in detail below:

i) Presentation of the research results.
ii) Rotating table group discussions over the recommendations to identify actions.
iii) Plenary discussion and voting on implementation actions.
iv) Ranking implementation actions and closing remarks.

The workshop began with an opening presentation reflecting on the one-year long Delphi-based process and highlighting the results which had gained consensus through the R3 verification survey.

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[113] A Defra civil servant (who had not partaken in the three surveys) observed the workshop.

TOPIC A: APPROACH TO GOVERNANCE ACROSS THE LAND-SEA INTERFACE

Question in Verification Survey	Statement Green = Consensus >70% (darker = strongest >80%) Blue = Mixed response <70% consensus Red = No consensus < 50%	Total Consensus Agree + Strongly Agree		IMPLEMENTATION *We are seeking information on HOW and WHOM.*		
		n =	%	PROPOSED ACTION	BY WHOM	EXAMPLE OF GOOD PRACTICE?
Top-Down and Bottom-Up Approaches to Governance. To improve marine and terrestrial governance for the coast there is a need to:						
1.1	**Invest more effort in facilitating linkage between top-down and bottom-up approaches;**	83	95%			
1.2	Continue to invest in bottom-up direction and decision-making;	71	83%			
1.3	A stronger and clearer national framework offering leadership.	78	93%			

Figure 6.6 Example of workshop template for implementation actions

The workshop plan involved allocating participants from different scale and sector backgrounds into four smaller groups for discussion as shown in the workshop plan (see Appendix 4C). Each group had five or six participants plus a theme (topic) scribe and facilitator provided by UWE. Large A3 templates were provided to each group, showing the 19 statements with the number and percentage of R3 participants who had agreed/strongly agreed (illustrated in Figure 6.6). Participants were asked to consider how these recommendations could be furthered through implementation actions and who could lead that delivery. Examples of good practice to draw upon were invited. Each topic scribe was provided with prompts, based on the researchers' initial ideas from the pilot, in case the group required ideas for discussion. The group facilitator stayed with the same group to discuss each of the five themes at four tables throughout the day. This enabled the facilitators to get to know their group and ensure each participant was actively engaged, eliciting as many of the recommendations as possible. The topic scribes stayed on their table with the same theme for discussion, meeting all participants in the four groups as they rotated around the room. Through this approach the topic scribes accumulated and recorded knowledge about that theme from all the participants and were able to present the key findings during the afternoon.

In each table group, participants were asked to brainstorm ideas for implementation based on the consensus gained through the Delphi-based process. On rotation, each table group spent approximately forty minutes with each theme (topic) scribe, as shown in Table 6.6.

Table 6.6 Workshop table groups: theme rotation

Topic	Table Group
Each theme had a topic scribe who stayed on a table. *Each table group had a facilitator who moved tables with the group.*	
A: Approach to Governance + **B**: Collaboration	AB →C →D →E
C: Organisations and the Institutional Framework	C →D →E →AB
D: Marine & Terrestrial Planning for the Coast	D →E →AB →C
E: Socio-Legal Mechanisms for Coastal Stewardship	E →AB →C →D

Completion of the implementation action templates was undertake across two sessions (either side of a lunch break). The topic theme scribes then presented 3 to 5 top-line implementation actions in a plenary session. During a mid-afternoon break 14 actions were input into voting software for the final session. All workshop participants were invited to vote on their level of agreement with each of the proposed actions, using remote-controlled electronic devices which enabled anonymity and live presentation of the results.

During a closing presentation by the primary researcher, the 14 actions which had been identified were duplicated onto flip-charts. Prior to departure, participants were given yellow, red and blue stickers (one of each) and asked to vote across all of the actions, which they considered to be of highest priority. This provided a final list of actions in priority order.

6.6.2   Workshop analysis, reporting and feedback

The proposed implementation actions identified and recorded by the topic scribes during the table group discussions were written up and made available as annexes to the R3 report (see Appendix 3C). The results of the final vote on the actions in the workshop plenary were recorded as percentages for levels of agreement/disagreement. They were reported together with the rank order resulting from voting for priority actions at the end of the workshop. The R3 report was shared by email with all participants who completed R1, R2 and R3 online surveys whether or not they

participated in the final workshop. The UK Coastal Governance website was updated with a summary of key findings, but access to the reports remained confidential to the participants.

Over half of the twenty-one workshop participants sent feedback to the researcher following the workshop, which was very positive about the way the workshop was organised and delivered and participants commented on how enjoyable it had been. Regarding the technical content, participants indicated that they benefitted from engagement in the surveys and workshop and they appeared to gain insights that would be taken into their ongoing professional practice. The only hesitation was expressed by two participants about 'leaving behind' valuable ideas which didn't come to the fore through the drive for consensus.

6.7   Chapter Summary

The Delphi-based survey process enabled identification of areas of strongest consensus amongst a large group of experts who were actively engaged in UK coastal governance. During the process, much information was gathered about people's individual ideas, whilst the research remained focused on identifying where the highest levels of consensus were to be found. The reasons for this were to seek solutions based on the perceived complexity, the wide range of ideas about governance of the coast (as described in Chapter 2), and the perceived need for consensus to inform future direction.

At the outset, inductive techniques were employed through an iterative process of analysis on the qualitative data. As the Delphi-based process evolved through three rounds of enquiry, a more deductive approach was taken to analysis of the quantitative data.

The R3 report, as the final step in the Delphi-based process, provided insights into areas of greatest consensus. It met the aims of a Delphi-based method to identify recommendations and potentially influence participants through their engagement in the research. Participants feedback illustrated that this was achieved and over half of the participants who responded to R1 completed all three survey rounds (53% *n*=89/168). Further interrogation of the results post-workshop, included more detailed consideration of the broad range of ideas and differences of opinion expressed during the research. The overall results were presented in the form of consensus around concepts and recommendations.

Table 6.7 Overview of survey rounds and questions

R1 QUESTIONS			R2 THEMES AND QUESTIONS			THEME	R3 STATEMENTS		
No.	Type	Name	No.	Type	Question header & number of sub-questions or answer options		No.	Type	Name and number of statements scored independently
5 6 7 8	O O O O	Characteristics of Existing Governance • Strengths • Weaknesses • Opportunities • Benefits	3, 3a 4 5	R (3), O R (7) R (7)	APPROACH TO GOVERNANCE ACROSS THE LSI - Top-down vs bottom-up (3) - Engagement in decision-making (7) - Other factors (7)	A	1 2 3	S(4)+DK S(4)+DK S(4)+DK	APPROACH TO GOVERNANCE ACROSS THE LSI Top-down and bottom-up approaches to governance (3) Engagement in decision-making (3) Factors influencing our approach to governance (1)
9 9a 9b 9c	S (5) O O O	Collaboration • Extent • Concept/meaning • Drivers/mechanisms • Barriers	6 7 8 9	O O R(7) R(7)	COLLABORATION to STRENGTHEN COGOV - Benefits of collaboration - Disadvantages of a collab' approach - Drivers and barriers – strengthen (7) - Drivers and barriers – strengthen (7)	B	4 5	S(4) S(4)	COLLABORATION to STRENGTHEN COGOV Collaboration benefits and challenges (1) Drivers and Barriers to collaboration (9)
			10, 10a 11, 11a 12, 12a 13 14, 14a 14b	S(7), O R(7), O R(7), O(3) O Top 3/17 O	ORGANISATIONS and the INSTITUTIONAL FRMK - Organisations driving collaboration (18) - Characteristics of effective collab (7) - Organisations roles & responsibilities (7) - Leadership for CoGov (4) - Colab'n at local community/eco scale (17) - Common characteristics	C	6 7 8 9 10	S(4) S(4) S(4) S(4) S(4)	ORGANISATIONS and the INSTITUTIONAL FRMK Organisations driving collaboration (3) Characteristics of effective collaboration (3) Organisations roles & responsibilities (4) Leadership for coastal governance (3) Collaboration at the local community/ecosystem scale (3)
			15 16 17, 17a 18, 18a 19, 19a 20	R(7) R(7) R(7), O R(7), O R(4), O O	MARINE AND TERRESTRIAL PLANNING - Effectiveness of marine planning (1) - Collab'n between planning authorities (1) - Collaboration factors (8) - Scale and connectivity between plans (7) - Leadership for coastal planning (4) - Other routes to effective planning	D	11 12 13 14 15	S(4) S(4) S(4) S(4) S(4)	MARINE AND TERRESTRIAL PLANNING Effectiveness of marine planning for the coast (1) Collaboration between marine planning authorities (1) Options to improve collaboration between MPAs (1) Scale and connectivity between marine and terrestrial plans (1) Leadership for coastal planning (1)
10 10a 10b 10c	S (5) O O O	Stewardship • Extent • Concept/meaning • Drivers/mechanisms • Barriers	21, 21a 21b 22, 22a	S (7) O Single (7)	SOCIO-LEGAL MECHANISMS - Promoting coastal stewardship (12) - Other incentives - Place-based governance (1)	E	16 17 18 19	S(4) S(4) S(4) S(4)	SOCIO-LEGAL MECHANISMS Promoting coastal stewardship (6) Bringing together/co-ordinating efforts/initiatives- examples(4) Societal/behavioural change to incentivise stewardship (4) Place-based coastal governance (1)
11	O	Vision for better governance							

KEY: O=Open question (text only response). R(3), R(7)=Rank question (ordinal data response) as answers are connected (e.g. from high to low with similarity) and linked i.e. not mutually exclusive OR forcing participant to choose between factors affecting one (common) variable. Number in brackets indicates the size of the Likert scale. S(7), S(4)=Scale (nominal data response) as answers are independent questions on a common theme but not linked i.e. mutually exclusive. Number in brackets indicates the size of the Likert scale. Top= participant had to choose top (e.g. 3) from a longer list and in order of priority.

7 RESULTS PART ONE: Approach to Governance and Collaboration

7.1 Participants Response Rate

Responses to the R1 survey were received from 173 individuals. Of the 168 eligible participants, 68% (*n*=115) continued to R2 and of those, 77% (*n*=89) went on to participate in the R3 verification survey, an overall response rate of 53% (*n*=89) in all three surveys. Over 80% of the participants undertook professional work relating to the coast every day or week (96 daily and 41 at least weekly). Further detail is shown in Table 7.1 and in the survey reports (Appendices 1F, 2E, 3C).

Table 7.1 Participation in the Delphi-based process

Date	Delphi Round Number (R#)	Activity	No. participants'
September-October 2017	R1 Online Survey	Invitation sent to >900 potential participants'; 173 responses	>900
January 2018	R1 Report	Results sent to 168 eligible participants' with a copy of their individual R1 response.	173
April-May 2018	R2 Online Survey	Sent to 168 eligible R2 participants'; 115 responses.	168
June 2018	R2-3 Notice of Workshop	'Save the date' for R3 workshop sent to 115 R2 participants'.	115
July 2018	R2 Report	Results sent to 115 participants' with a copy of their individual R2 response.	
July-August 2018	R3 Online Verification Step	Sent to 115 R2 participants'; 89 responses.	89
September 2018	R3 Workshop	Results of R3 verification survey sent to 21 participants' for discussion around implementation actions.	21
November 2018	R3 Report and Summary	Report containing results of verification survey and workshop.	89

The workshop involved 32 attendees (including facilitators, scribes and observers), of which 21 were self-selected expert participants who had completed R1, R2 and R3 surveys (it was a prerequisite to attendance). The R3 report (Appendix 3C) was issued in November 2018 to the participants who had completed the Delphi-based process, following the workshop in September 2018.

7.2   Participants Perspectives

Participants were asked to provide information about themselves in the first two survey rounds to ensure broad representation of perspectives, as described in Section 6.3.4. This section describes the representation of participants' values through each survey round and in the final results.

7.2.1   Marine, terrestrial and coastal interests

Of the 168 R1 participants the 'main area of interest' was reported to be more commonly based around marine (34%) and coastal (28%) as opposed to terrestrial (6%) experience, while 24% of participants felt their experience spanned terrestrial, marine and coastal areas. The remaining 8% considered their interests spanned 'all' or 'other' which included participants expressing two of the three selections (e.g. marine and coastal/terrestrial and coastal). This therefore indicated that enough specialist knowledge of the coast was offered with one-third 'marine', one-third 'coastal'/'terrestrial' and one quarter covering all three geographical perspectives.

7.2.2   Roles

To support wide representation and comprehensive coverage of expertise, as explained in Section 6.2, participants were asked to identify the roles that they had in sector/multi-sector initiatives. As shown in Table 7.2, a large proportion of participants had professional roles as an advisor/consultant, manager, researcher and/or practitioner. The overall number of roles in multi-sector initiatives was higher with the notable exception of researchers, managers and users, where there was less engagement in multi-sector initiatives. Examples are given of employing organisations, but it was expressly stated that participants were not representing their organisations' perspective so this is not directly connected to the participants' role. In R1, 65% of participants had >10 years of experience, of which seventy had >20 or >30 years of experience. Over 80% of participants undertook professional work relating to the coast every day or weekly.

Table 7.2 Participants' respresentivity by role (R1 Q14b.)

Participants' role	Number of Participants		Examples of participants' employing organisations: statutory and non-statutory.
	Role in sector (R1 Q14.a)	Role in multi-sector initiative (R1 Q14.b)	
Regulator	40	46	Inshore Fisheries and Conservation Authorities
Manager	92	80	Environment Agency
Employee	54	60	Estuary/Coastal Partnerships
Volunteer	43	66	Foundation Trust
Trustee	21	25	Harbour Authorities
Director	34	36	Industry/Trade Association
Advisor/Consultant	138	153	Local Authorities
Researcher	101	77	Marine Management Organisation
Practitioner	60	74	Natural England
Local community rep.	35	40	Natural Resources Wales
User	23	18	The Crown Estate
None	0	4	Universities
Other	40	39	Water company
			Welsh Government
			Wildlife Trusts
			UK Chamber of Shipping
Note: participants were able to express multiple roles in sector and multi-sector initiatives.			

7.2.3   Scale and sector representation

Participation was sought from people working across the UK at the local to national level (scales), and in different types of public/private/civil society (sectors) as explained in Section 6.3.4, Table 6.4.

Multiple Selection of Scale and Sector (R1)

In R1, participants selected multiple scales and sectors which they felt able to represent, as shown in Figure 7.1 below. The highest proportion of participants (79% *n=132*) felt that they represented a UK-wide perspective, with a good proportion (60%, *n=100*) also feeling they had a local perspective. Regional and devolved perspectives were least well represented, but there were still 20-30% of participants who felt that they represented a perspective from Scotland and Wales. A broad range of sectoral interests (14) are also represented, as shown in Figure 7.1.
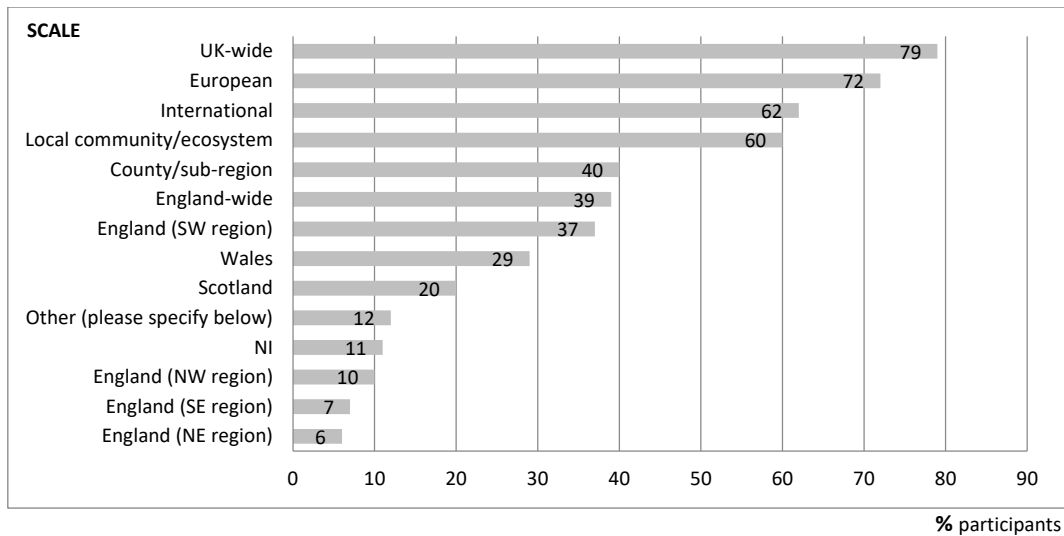
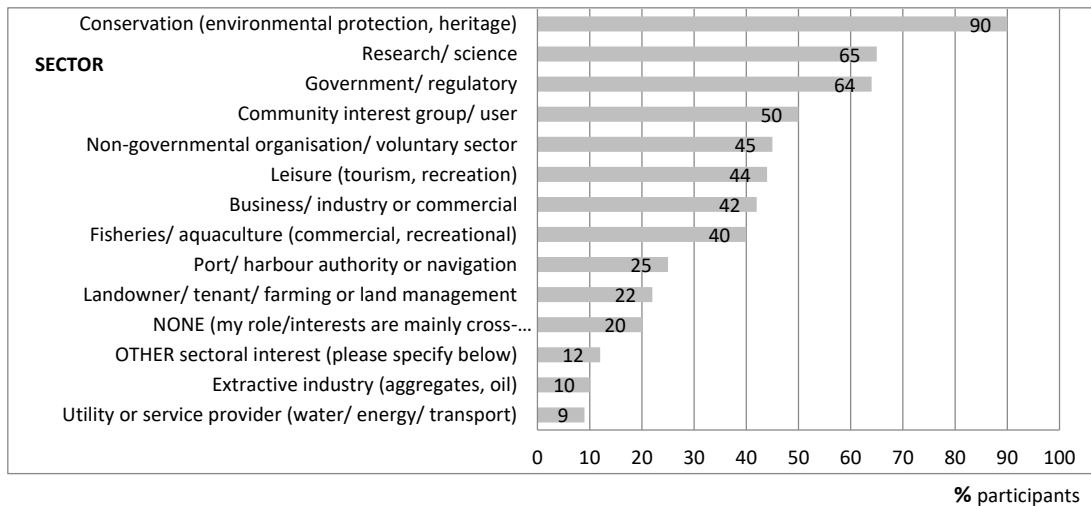*Figure 7.1 Participants geographical extent or 'scale' of Interests (R1 Q13).*

Figure 7.2 Participants' 'sectoral' interests (R1 Q14).
<u>Note</u>: *In R1, each participant could indicate as many scales and sectors that were relevant to their interests and activities, so multiple options were selected by many participants.*

Following the analysis of R1 results, the following matrix showed the extent to which the assignment of the qualitative data was associated with participants scale and sector perspectives. These results illustrate the wide range of perspectives that were brought into the research, but also the potential for bias considering the results are taken as a whole dataset. It shows highest frequency of perspectives from conservation and research sectors, and UK/EU, international and local rather than devolved or regional scales.

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SCALE	SECTOR														SCALE TOTAL
	BUS	COM	CON	EXT	FIS	GOV	LA	LEI	NGO	POR	RES	UTI	NON	OTH	
INT	564	618	1105	212	591	855	176	608	609	432	1110	166	326	116	7488
EU	532	587	1215	163	561	829	194	577	618	394	1106	184	397	140	7497
UK	554	587	1171	147	647	875	166	523	729	415	950	130	474	100	7468
SCO	136	51	215	75	180	144	79	43	115	99	236	36	178	0	1587
WAL	231	251	456	195	181	242	167	139	175	148	273	74	73	19	2624
NI	84	18	108	65	70	104	102	18	43	36	122	36	111	19	936
ENG	445	399	691	126	413	792	205	276	328	264	593	133	181	101	4947
ENG - ENW	133	133	182	60	113	158	49	233	215	72	115	30	81	37	1611
ENG - ESW	255	391	772	0	436	531	47	342	430	177	348	60	188	131	4108
ENG - ENE	42	87	125	0	87	151	0	83	87	45	125	0	41	43	916
ENG - ESE	87	104	170	26	109	172	24	71	109	154	106	26	83	0	1241
COU	295	464	812	105	391	630	154	427	371	294	457	36	239	21	4696
LOC	567	961	1151	155	550	844	245	757	724	429	859	124	329	82	7777
OTH	95	189	146	0	116	144	35	69	73	90	224	92	25	92	1390
SECTOR TOTAL	3925	4651	8173	1329	4329	6327	1608	4097	4553	2959	6400	1035	2701	809	

Figure 7.3 Distribution of references in NVivo across participants, scale and sector (R1 Q13 and Q14).
Note: Highest frequencies are highlighted in purple (over 1000) and lowest frequencies in blue (below 50).

Primary Perspective: Scale and Sector Grouping (R2)

The R2 participant selection of one sector and one scale to represent their primary perspective, resulted in the proportions shown in Figure 7.4 and Figure 7.5. Results from the R2 survey offered roughly similar proportions of participants from scale and sector interests as from the R1 survey (where participants could select multiple scales and sectors as representative of their interests) but the regional perspective was evident, particularly from the South-West region. The grouping of participants for R2 analysis is shown in the R2 report (Appendix 2E).
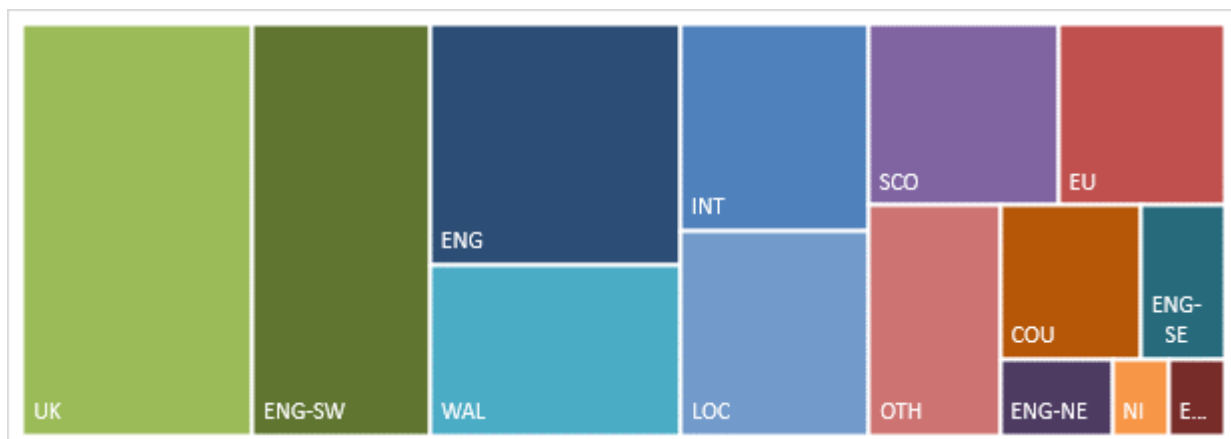

Figure 7.4 Participants representation by geographical extent or scale of interest (R2 Q1)
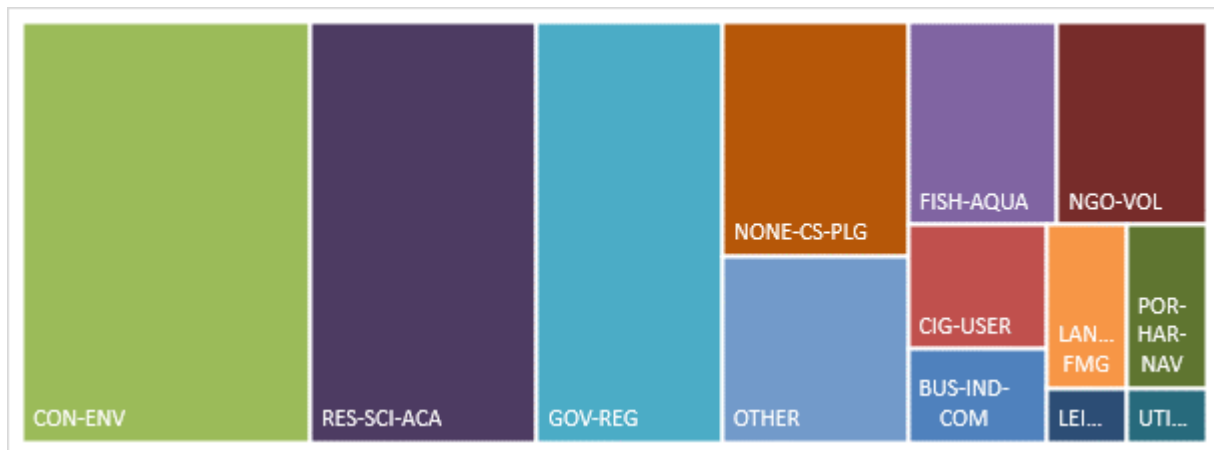
Figure 7.5 Participants representation by sectoral interest (R2 Q2)

Final Representation of UK-wide Scale and Sectors (R3)

Based on the R2 data of participants' primary scale and sector, the perspectives represented in the final R3 survey and workshop are shown in Table 7. it was noted between R2 and R3 that there was an 8-10% reduction in representation from the English regional scale and research sector, but an 8% increase in representation from those who represented cross-sector/no sector perspectives.

Table 7.3 Participant representation by scale and sector group in the R3 verification survey and workshop

	R3 participants		Workshop			R3 participants		Workshop	
SCALE	%	n=/89		%	SECTOR	%	n=/89		%
International/EU	17%	15	3	14%	'Private' sector	18%	16	1	5%
UK	14%	13	4	19%	'Public' sector	17%	15	2	10%
Devolved	19%	16	3	14%	Conservation inc fisheries	16%	15	9	42%
England	16%	14	6	29%	Government	15%	13	5	23%
English regions*	15%	14	2	10%	Research	16%	14	2	10%
County/Sub-region/Local	19%	17	3	14%	Cross-sector/ None**	18%	16	2	10%
TOTAL	**100%**	**89**	21	100%		**100%**	**89**	21	100%

*8-10% reduction **8% increase between R2 and R3.

In the workshop, just under half of the participants offered a UK-wide (*n=7*) or England-wide (*n=6*) perspective, with contributions from devolved (*n=3*), English regions and county/sub-regional scales. Representation by sector was more biased with nearly half of the participants (*n=9*) presenting a conservation or fisheries perspective and a quarter offering a government perspective (*n=5*). Overall, the final R3 survey response represented a good range of perspectives across scales and sectors.

7.3 Format of the Results Chapters

The remainder of this chapter and the next two chapters contain the final reporting of results from the three rounds of the Delphi-based process and workshop. The results from each of the three survey rounds are contained in separate reports which were shared with participants (see Appendices 1F, 2E and 3C). Since the overall purpose of the iterative Delphi-based process was to drive towards the highest level of consensus, the thesis focuses on areas where the highest levels of consensus were found within the five themes which emerged from R1.

Part One (Chapter 7) contains the results of Themes A and B:

- Approach to governance across the land-sea interface;
- Collaboration to strengthen coastal governance.

Part Two (Chapter 8) contains the results of Themes C and D:

- Organisations, the institutional framework and planning;
- Marine and terrestrial planning across the land-sea interface.

Part Three (Chapter 9) contains the results of Theme E:

- Stewardship, vision and socio-legal mechanisms.

The following sections of the thesis describe the main findings from the R1-R3 results pulling out the final consensus, priority actions and evidence of response stability:

- *Consensus*

Levels of consensus were obtained on 19 groups of recommendations by the R3 participants (*n*=89) who completed the iterative survey process. These had been formed from the R1 and R2 results as described in the analytical strategies (Section 6.3.3; 6.4.4) with additional background in the R3 report in Appendix 4.

- *Priority Actions*

Results from the workshop include implementation actions identified from five table group discussions. A brief summary of the discussion is provided, with full background provided in the R3 report in Appendix 4. The top 3-5 implementation actions for each theme (topic) were taken forward and 14 statements presented for e-voting in the final plenary session. They were further ranked to identify the overall order of priority.

- *Response stability*

Reflections are offered on response stability between the survey rounds to indicate confidence in the final results, as described in the R3 Analytical Strategy (Section 6.5.3).

At the end of each section an overview table of the results across R1-R3 is provided for that theme.

7.4 Characteristics of Existing Governance (Theme A)

Theme A developed from the insights of the R1 findings on the strengths and weaknesses of existing approaches to governance, opportunities for and the potential benefits of improvement. This led to R2 and R3 questions on top-down vs bottom-up approaches to governance, engagement in decision-making and consensus around factors which influence our future approach to governance. There were two actions for implementation identified by workshop participants.

Overall, R1 indicated more weaknesses than strengths in existing governance, with 1018 coding references[114] for strengths and 1203 for weaknesses. The percentages quoted below indicate the proportion of participants comments coded to each category from the combined coding, as described in Section 6.3.3. The R1 results were reported more fully in the R1 report (Appendix 1F). The areas of greatest strength and weakness are described in the following sections.

Table 7.4 Strengths and weaknesses of existing governance from R1 Survey (R1 Q5, Q6)

CATEGORY	STRENGTHS		WEAKNESSES		
	No. coding references	% response	No. coding references	% response	% Variation
Approach to Governance	325	32	361	30	2
Institutions	221	22	225	19	3
Legal/Policy Framework	240	24	181	15	9 > strength
Evidence, Data, Knowledge	51	5	64	5	0
Coastal Ecosystem/LSI/Scale	74	7	111	9	2
Economic/Development interests	30	3	43	4	1
Incentive	21	2	76	6	4
Resources	17	1.5	113	10	8 > weakness
Protection/adaptation (coastal change)	23	2	29	2	0
None	16	1.5	0	0	1.5
TOTAL	**1018**	100	**1203**	100	

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[114] The number of 'comments' or 'references' mean the number of observations by a participant which were assigned to themes which emerged during the analysis. As each of these R1 questions offered space for up to three answers and three examples, there were potentially 6 boxes of text provided in answer to one question. With 168 participants, this meant the possibility of >1000 (168x6) boxes of text to analyse for each question. During analysis, some text was assigned to more than one node in *NVivo,* whilst other text may not have been assigned if it was not considered relevant to the question. Further background is provided in the R1 Analytical Strategy (Section 6.3.3).

7.4.1   Approach to governance

In R1, one third of participants' comments on strengths and weaknesses were about the approach to governance. Overall, there was a sense that our current approach is too complex with weaknesses in communication and unrealistic approaches to public engagement, and expectations of it. It lacks accountability, long-term and integrated approaches with 96% of participants ranking one of these factors as 'most important' (R2 Q5). The legal and policy frameworks were considered to be the greatest strength, particularly in relation to the Marine Acts. However, there were consistent references to weaknesses with the MMO and overall more weaknesses than strengths in the current institutional framework, with diverging views about the effectiveness of CEPs, EMS and LAs. Concerns were expressed about land based strategic planning not being fully integrated with marine planning and multiple bodies and agencies responsibilities being ineffectively coordinated across the land-sea interface. A high proportion of participants expressed concern about the weakness in resource provision and the negative impact this has on many aspects of governance. There were also comments about the weaknesses of the scale of approach to governance across the land-sea interface for the coastal ecosystem; evidence, data and knowledge; economic/development interests; and protection/adaptation in relation to coastal change. R1 coding results indicated particular strengths around partnership working and stakeholder engagement/awareness work. This was quantified In R2 with 39% of participants (n=45) considering partnership working as 'most important' ($\bar{x}$5.4) alongside stakeholder engagement ($\bar{x}$=5).
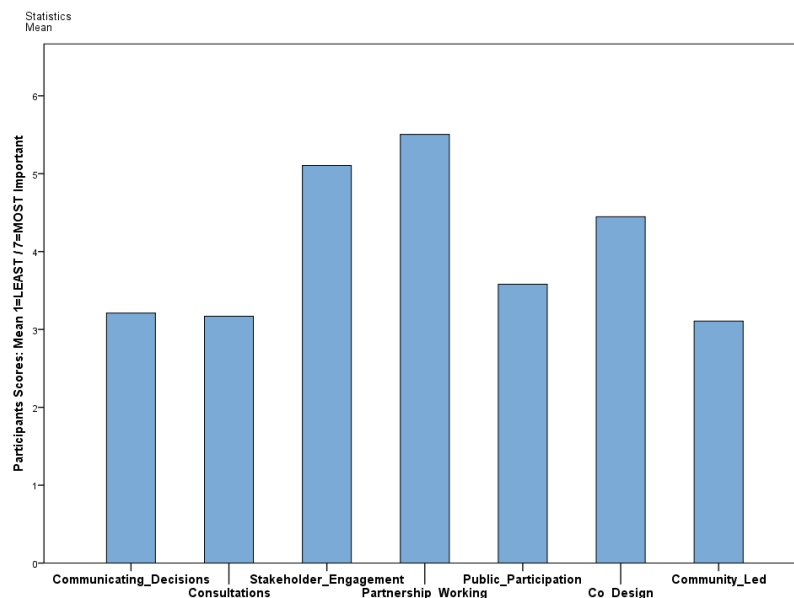
Figure 7.6 Engagement in decision-making (R2 Q4)

In R2 (Q3) participants indicated that the strongest approach to improving coastal governance would be to bring top-down and bottom-up approaches to governance together (79% participants, *n*=91/115). Bottom-up approaches were slightly more supported than top-down (59% compared to 31%). The main reasons given for bringing top-down and bottom-up approaches together included the effectiveness of implementing legislation and policy if communities take stronger ownership/responsibility, and recognition that good engagement/collaboration was required to share understanding of strategic issues. Whilst there is a good level of support for bottom-up approaches, there is recognition that clear direction is needed from the national level, particularly as participants look towards the top-down approach to help fund collaborative effort.

Consensus

The R3 survey results indicated strong support to invest more effort in facilitating linkage between top-down and bottom-up approaches (R3 Q1.1, 95%) as shown in Figure 7.7.
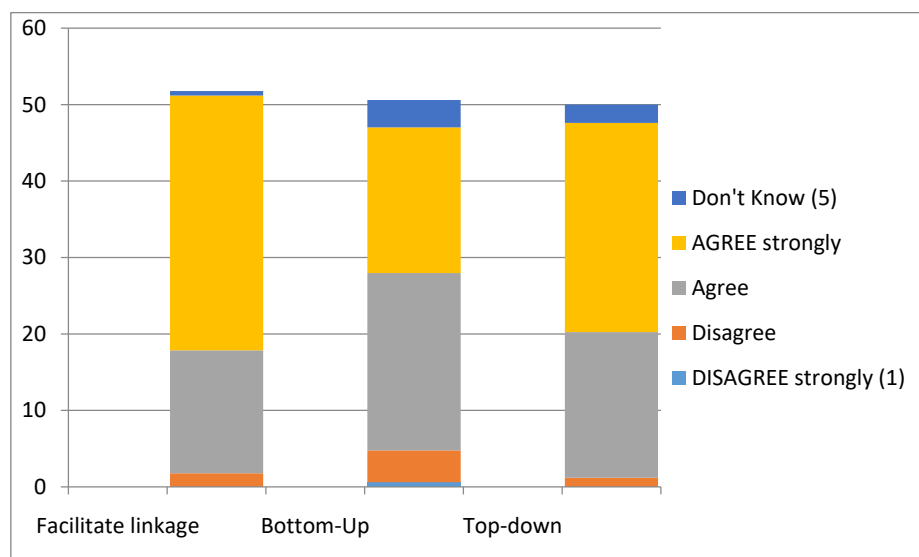
Figure 7.7 Participants' support for facilitating linkage between bottom-up and top-down approaches to governance (R3, Q1.1)

R3	Statement	Total Participants Response*					Total Consensus Agree + Strongly Agree	
		DS	D	A	AS	DK	n = participants (out of 89)	%
Top-Down and Bottom-Up Approaches to Governance								

To improve marine and terrestrial governance for the coast there is a need to:

1.1	Invest more effort in facilitating linkage between top-down and bottom-up approaches;	0	3	27	56	1	**83**	**95%**
			3%	31%	64%	1%		
1.2	Continue to invest in bottom-up direction and decision-making;	1	7	39	32	6	**71**	**83%**
		1%	8%	46%	38%	7%		
1.3	A stronger and clearer national framework offering leadership.	0	2	32	46	4	**78**	**93%**
			2%	38%	55%	5%		

*DS = Disagree Strongly/ D = Disagree/ A= Agree/ AS = Agree/ Strongly/ DK – Don't Know

The R3 (Q1.3) results suggested that expectations to involve local communities in decision-making, which are not being met, might be resolved through a stronger and clearer national framework (93%) alongside continuing to invest in bottom-up direction and decision-making (83%). Substantial opportunities were identified for the future approach to coastal governance (R1, Q7 *n*=318 references). Collaboration between regulatory bodies in partnership with communities were seen to hold future opportunity, but the large number of planning/licencing and regulatory processes running in parallel across the marine/terrestrial landscape may require top-down direction to resolve. The value of generating a bottom-up sense of local ownership of marine resources in coastal communities was recognised, with the possibility of enabling more decision-making at the local/regional level[115]. R3 sought to unpack the level of support for statutory and non-statutory approaches and the role of networks, and indicated 91% consensus for statutory processes supported through facilitating networks to better engage with them.

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[115] Coastal and marine networks/partnerships, including the Scottish Marine Planning Partnerships, are recognised for improving access to knowledge and citizen science to enable more informed planning and decision-making. Clearer and more transparent interactions are needed between the local/regional and national level. Issues around accountability, trust and a lack of understanding were met with suggestions to develop more locally specific planning guidance, communicate science to communities better, extend MPs constituencies into inshore waters and/or promote an IFCA-style governance for other sectors.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Factors Influencing Our Future Approach to Governance		DS	D	A	AS	DK	n = participants (out of 89)	%
3	Statutory approaches should be supported through facilitating networks to better engage with them.	0	2 2%	37 42%	43 49%	6 7%	80	91%

The benefits of improvements featured in a quarter of responses (R1 Q8, *n*=280 references) and included clarity, accountability, trust and understanding. Better understanding of the value of the coast and the governance arrangements amongst coastal communities would give greater legitimacy and buy-in to management[116].

Response stability

The need to bring people together was consistently found in R2 and R3, with most support in R2 (79% *n*=91/115) and only 2% or 3% disagreeing on this point in both rounds. There was less response stability around top down and bottom-up approaches. Overall there was strong consistency in support for bringing people together through the 'middle' approaches to governance (i.e. partnership working and stakeholder engagement) rather than top-down or bottom-up dominant approaches. There was slightly more support for bottom-up approaches such as co-design and community-led decision-making, but in R3 more support for a stronger and clearer national framework (93%), compared to continuing to invest in bottom-up direction and decision-making (83%). This suggests that some top-down intervention could help to strengthen bottom-up approaches.

Workshop: Priority Action (A1)

The groups discussed power between local groups and decision-makers, building trust and needing to invest time and resources into facilitating linkage. They observed that empowering ownership in local communities can encourage a sense of trust and ownership (e.g. through coastal monitoring) which can support decision-makers, reflecting local interests in a statutory process. However, statutory bodies often default to their statutory remit which can compromise funding for non-statutory activity. A stronger and clearer national framework could reflect the value of community

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[116] Integrated approaches utilising ICM, Ecosystem Based Approach (EBA) and Ecosystem Services (ES) principles and tools would be of benefit to promoting a more joined up/holistic approach and consistency. The importance of taking a long term approach was recognised, reducing emphasis on short term project approaches.

influence on policy by recognising its importance. The workshop participants recommended the following action for implementation:

- **Regular local monitoring and engagement sustained through a national policy requirement (linked to the 25 year Environment Plan) (A1).**

Through e-voting in the plenary session, the level of agreement on this action was 95% and it was ranked 4th= out of the 14 top actions. The full range of scores is shown for the summary of results from Theme A in Table 7.5 at the end of this Theme A section.

Workshop: Priority Action (A2)

Participants recognised that much work is delivered through partnership working but that there are limitations, such as getting the right people involved from marine in catchment partnerships. Top-down drivers such as legislative support are needed to lever engagement. Platforms that encourage sharing and equality are valued. IFCAs are seen as a good model in practice and the question of establishing a Coastal Trust was raised, based on the positive funding model of the Rivers Trusts. The biosphere model was also discussed (based on Marine Pioneer experience in North Devon) as a mechanism to engage people and attract funding using a charitable organisation. The vision and governance structure needs to support co-design/management and independence.

The agreed statement put forward by the table group for engagement in decision-making was:

- **Bring people together through shared vision (e.g. biosphere) underpinned by appropriate governance structure which attracts sustainable finance (A2).**

Through e-voting in the plenary session, the level of agreement was 100% consensus and it was ranked 2nd = out of the 14 top actions.

Enabling networks to support statutory approaches was a key theme of the workshop discussion. It was felt that austerity has led to the centralisation of power with less finance available to support facilitation efforts. The bottom-up approach needs to be taken seriously and relies on willingness of central government to relinquish power. It was noted that the Catchment Based Approach is based on a statutory duty under the Water Framework Directive, which provides an underlying duty towards networking. The effectiveness of a network could be assured through setting it up in the right way – with good facilitator(s) to ensure good representation in an open forum, long term

support and funding[117]. There was a rich discussion around this recommendation but no specific action was identified in the workshop. However other actions A1, A2, C1, C2, E2 and E5 were closely linked to this result and the discussion that took place.

7.4.2   Legal and policy framework

Strengths were reported in the legal/policy framework (R1, *n*=245 references) with the Marine Acts offering opportunities for co-ordinated marine planning. Overlap between marine and terrestrial planning and consenting between MHWM and MLWM was considered to promote cooperation and dialogue between the MMO and terrestrial authorities, but the extent to which integration is actually being achieved needs further consideration. The Marine Acts were also cited as the main weakness in legal/statutory requirements due to the lack of connectivity with local authorities for linking marine and terrestrial planning, so there was disagreement about its overall effectiveness. Terrestrial planning is seen as more mature and more prescriptive than marine planning and many participants felt it was too early to judge the success or otherwise of new marine plans - they need to run through another cycle or two of revisions to determine their effectiveness.

Opportunities around the legal and policy framework were considered high (R1, *n*=195 references). A more collaborative approach to planning could be achieved through better integration of the two planning systems, their policies and procedures. Incorporating ICZM principles, creating coastal zone plans or regulating coastal activities through statutory plans were suggested. More decision-making could be undertaken at the local/regional level in England, providing well-funded local management and enforcement to generate an income stream. However, differences in scale between regional/devolved marine plans and local terrestrial plans present challenges for integration. There are opportunities to increase communication and collaboration between devolved administrations and apply a more uniform approach.

There was recognition of the strong role of EC Directives in underpinning UK governance, with most reference by participants to the Water Framework Directive due to its remit out to 1nm (3nm in Scotland) and the value of its evolution into CaBA. Weaknesses were reported in other legislative characteristics - policy, terrestrial planning and EC Directives such as in UK conservation designations for landscape/seascape, and the Duty to Cooperate under the Localism Act. Other major challenges

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[117] Examples included Estuary Forums, the Devon Maritime Forum, North Devon Biosphere and the Wales Coastal & Maritime Partnership.

exist around the implementation of regulation (rather than its design) which is compromised by a lack of capacity across many bodies for monitoring and enforcement.

7.4.3   Resources for the coastal ecosystem

A large number of participants expressed weaknesses about the lack of resources (R1, *n*=113 comments). Capacity constraints and funding have an impact on management, planning, governance, localism, development, communication, partnerships and stakeholders. The difficulties of trying to promote sustainability in a non-sustainable funding environment were described in different ways by most participants. The challenge is not unique to England, with recognition that Scotland and Wales are experiencing similar resourcing issues. Concerns about resource capacity were compounded by uncertainties surrounding Brexit. However, the overriding message was about the lack of political will and lack of a unifying vision for the coast.

A few participants suggested that the lack of any obvious coastal policy or 'agenda' and no legislative drivers makes it difficult to see any major opportunities. Governmental preoccupation with Brexit, austerity and deregulation has been a barrier for many years, although there is a growing pushback in these areas. Opportunities exist for the coastal ecosystem around evidence/data (in particular managing acquisition better from local communities), increasing data-sharing across public sector organisations, stimulating a culture change from hard science to appreciation for softer sciences (e.g. sociology), and avoiding there being so many short-term projects. Potential benefits were well recognised (R1, *n*=232 references), including community employment and well-being which are closely linked to the health of the coastal ecosystem. An integrated/ecosystem approach was considered to offer benefits such as reducing conflict, increasing scope for multiple gains and potentially providing more innovation. Several participants also recognised that community 'ownership' engenders stewardship and not necessarily growth, but clarity in the approach to decision-making is helpful for developers.

7.5   <u>Theme A</u>: Summary of Results

A summary of the responses for Theme A is provided in Table 7.5. Participants in R1 reported more strengths than weaknesses in the legal/policy framework (24% vs. 15%) and institutions (22% vs. 19%), but weakness in resources and incentives for its delivery (1.5% vs. 10%). Frequent references to the approach to governance were tested through the survey rounds. Clear consensus was identified around bringing people together by facilitating linkage between top-down and bottom-up approaches (R3 Q2.1, 97%). This included investing in partnership working, stakeholder engagement

and co-design/management, and facilitating networks to better engage with statutory approaches. Workshop participants proposed that a shared vision which brings people together could be achieved, if underpinned by appropriate governance structures which attract sustainable finance (A2).

High levels of consensus were found around the need for a national framework offering leadership (R3 Q1.3, 93%) including statutory approaches, compared to investing in bottom-up direction and decision-making. The results suggested that leadership from the former to achieve the latter is important, because there was still a high level of agreement over continuing to invest in bottom-up direction and decision-making (R3 Q1.2, 83%). The workshop participants suggested that regular local monitoring and engagement could be sustained through a national policy requirement (A1) and that monitoring plays a role in generating a sense of value and ownership, which could be used to help attract sustainable finance (A2).

Table 7.5 Summary of results for Theme A: approach to governance across the land-sea interface

THEME A - APPROACH TO GOVERNANCE ACROSS THE LAND-SEA INTERFACE	CONSENSUS (%)				HOW to achieve this?

R3 Question number and verification statements		A+AS	AS	A	DS+D	WORKSHOP IMPLEMENTATION ACTIONS
2.1	The most supported approaches to governance are those that **bring people together** through partnership working, stakeholder engagement and co-design/management. (R2 Q4)	97	64	31	2	A1: Regular local monitoring and engagement sustained through national policy requirement (linked to 25yr Environment Plan)
1.1	Invest more effort in **facilitating linkage** between top-down and bottom-up approaches; (R2 Q3)	95	78	19	3	
1.3	A stronger and clearer **national framework** offering leadership.	93	46	32	2	
1.2	Continue to **invest in bottom-up** direction and decision-making;	83	32	39	8	A2: Bring people together through shared vision (e.g. a biosphere reserve) underpinned by appropriate governance structure which attracts sustainable finance.
3	**Statutory approaches** should be supported through facilitating networks to better engage with them.	91	43	37	2	

R2 Question number and findings	
3	**Bring together** was most supported:
	- 91/115 (79%) participants gave MOST support for 'bring together'.
4	- only 4/115 (3%) participants gave LEAST support for brining together.
	Bottom-up was more supported than top-down:
	- 68/115 (59%) giving LEAST support for 'top-down' compared to 36/115 (31%) giving LEAST
5	support for 'bottom-up'
	- 15/115 (13%) giving MOST support for 'bottom-up' compared to 9/115 (8%) for top-down
	- least support given to **top-down** (68/115, 59%) compared to bottom-up (36/115, 31%)
	Engagement in decision-making
	7-point scale: partnership working, stakeholder engagement and co-design highest
	Factors influencing approach to governance
	Accountability, long-term, integrated approaches most important (96% participants)

R1 Observations which led to this theme of investigation

Characteristics of existing governance	Strengths (%)	Weaknesses (%)	Opportunities (%)	Benefits (%)	TOTAL
Approach to governance	32	30	30	29	30% (*n*=121)
Legal/policy framework	24	15	18	9	17% (*n*=66)
Institutions	22	19	17.5	6	16% (*n*=65)
Resources		9			
Incentive		6			

7.6 Collaboration to Strengthen Coastal Governance (Theme B)

Theme B assessed participants' perspectives on collaboration to strengthen coastal governance. R1 explored the extent, concept/meaning, drivers/mechanisms and barriers to collaboration. Through further questions in R2 and R3, participants' views on the benefits, disadvantages and challenges around collaboration were investigated. One priority action for implementation was obtained from consensus at the workshop.

7.6.1 Extent of collaboration and the concept of collaborative governance

A central theme of the research was to explore how collaborative governance mechanism(s) could improve stewardship of the coast. Many participants were directly involved in or influencing governance, so were asked questions about their experience relating to the extent, meaning, drivers/mechanisms and barriers for collaborative governance [R1 Q9]. Survey participants were given a definition of collaborative governance in the Participant Information Sheet (see Appendix 1C):

Collaborative Governance

A *process* bringing together the state, private sector, civil society and the scientific community to engage collectively in decision-making across the land-sea interface.

Participants were asked [R1 Q9]: *To what extent is collaboration embedded in what you do?* The response showed that three-quarters of participants 72% (n=106) consider that collaboration is significantly embedded in what they do, with only 3% (n=17) considering it to be moderately embedded and only four considering it less than moderately or not at all embedded in what they do. Many participants indicated that good collaboration would be underpinned by a shared vision for the coast with more democratic, transparent decision-making.

Participants were then asked [R1 Q9a]: *What does the concept of collaborative governance mean to you?* A single open text box was provided for the answer to this question, from which 246 comments were coded. Working together (28%) and the existence of a common aim/shared understanding (27%) were the predominant explanations for the meaning of collaborative governance, with other participants mentioning stakeholder input/involvement (18%) or ownership/a 'commons' approach (14%). There were differences in perspective over whether regulatory authorities should lead engagement to meet strategic aims or whether it is achieved through more shared governance such as co-creation, collective action and place-based governance (especially across boundaries).

7.6.2   Benefits and challenges of collaboration

Considering that over 70% (*n*=106) of survey participants indicated that collaboration is significantly embedded in what they do (as illustrated above), by contrast over 60 participants (36%) referred to the lack of incentive to collaborate and views on *how* to go about it differ. This section explores the benefits of collaborative effort and the challenges which may prevent it.

Participants were asked (R2 Q6): *Describe briefly what specific benefits you seek from collaboration?* Nearly all participant's (*n*=114) provided a sentence or two in response, suggesting that collaborative approaches are well recognised as a means of increasing understanding, sharing knowledge, evidence and perspectives which can lead to multiple benefits and better outcomes for all sectors. Several participants referred to the specific value of collaborating over an evidence-base or knowledge-sharing. It may lead to stronger buy-in, a sense of collective ownership and (therefore) more responsible management and greater compliance with regulation. It promotes efficient use of scarce resources and builds capacity towards a more holistic approach, enabling the evolution of a shared and longer-term vision.

Participants were also asked (R2 Q7): *Are there any disadvantages to a collaborative approach?* Nearly all participant's (*n*=112) provided a sentence or two in response, raising concerns around the time and resources required to do it properly in relation to risks. These included: domination of vested interests/powerful voices; lack of clarity over responsibilities; raising expectations, participation fatigue and stakeholder disillusionment; the quality of decision-making compromised by relying less on scientific evidence; consensus seeking leading to compromise and valid views lost; and failure to achieve agreement which can cause complications and may cause disharmony or conflict if not properly managed. To help mitigate against the above risks there needs to be balanced and strong leadership; clear responsibility for the process; ability to balance sectors; an appropriate convenor and space; monitoring progress a maintenance of momentum. Good collaborative approaches were recognised as challenging, hard work and not always the best approach, especially if mismanaged, which can result in more inefficiency. However, many participants expressed the sentiment that the time and resources invested were worth it if the risks could be minimised.

Consensus

As shown in the table below, R3 obtained 100% consensus around the recommendation that there is value in seeking to strengthen collaboration across the land-sea interface, with 75% of participants agreeing strongly. The following sections consider recommended actions to address this consensus.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
	Collaboration Benefits and Challenges	DS	D	A	AS	DK	n =	%
4	There is value in seeking to strengthen collaborative efforts across the land-sea interface	0	0	22 25%	67 75%	0	**89**	**100%**

Response stability

R1 questions on the concept and extent of collaboration showed a high level of familiarity with this approach to governance and led to exploration of the benefits and challenges/disadvantages in R2. R3 demonstrated stability and possibly growing consensus around the value in strengthening collaborative effort as a result of participating in the research, with no disagreement. This included the four participants who indicated in R1 that collaboration was less than moderately or not at all embedded in what they do.

7.6.3   Drivers and barriers to participation

Participants were asked (R1 Q9b): *Based on your own experience, what drivers or mechanisms encourage collaboration across the land-sea interface for coastal governance?* A total of 794 comments (n=) were coded from the responses.

The main drivers for collaboration were found in the approach to governance (22%/*n*=174) and legal/policy framework (21%/*n*=164). Collaboration is driven by community engagement, the facilitation role of a chair/leader and stakeholder engagement generating accountability/transparency/trust and understanding. Top-down or statutory approaches were not seen as a dominant driver for collaboration although consultations were seen to be important. The most prominent observations about the legal/policy framework referred to the Marine and Coastal Access Act (2009) and its implementation through the MMO and marine planning, specifically its role in seeking compatibility of plans and the MMO's efforts to involve LAs. EC Directives were recognised as key drivers in particular through WFD and the CaBA (compared to the MSFD where delivery effort is more centralised). Policy drivers considered to lead to collaboration included the Shoreline Management Plan (SMP) coastal groups, ICM initiatives, the Coastal Concordat and Coastal Community Teams (CCTs). There was recognition that bottom-up/voluntary approaches can be more effective and deliver value for money, but that funding and support are key issues to ongoing success. This was characterised by the evolution of partnership working in recent decades and the CEPs/Forums which have survived the test of time were likely to be successful drivers for ongoing collaboration.

Other drivers for collaboration included comments around the incentive (14%) through the existence of a shared vision/aim or common-ground with knowledge sharing. The importance of political will to get support at all levels was noted, as was the need for public interest and/or pressure. Awareness of the coastal ecosystem *in itself,* such as a personal attachment to it, or recognition of diverse and complex pressures on it (especially estuaries), were considered to be powerful drivers for collaboration (10%). Strong and clear planning across boundaries was recommended, with alignment of the processes of plan making for land and sea. Planning at a scale which is meaningful and related to, or embeds, both 'natural' processes and people's sense of place and identity was recognised as a driver towards commitment and ownership of the coastal ecosystem.

Participants were asked (R1 Q9c): *What (if any) barriers do you see for future collaboration across the land-sea interface for coastal governance?* A total of 300 comments were coded from the responses. By far the most frequent references barriers were about resourcing and funding (32%). Participants expressed a clear view that effective collaboration needs to be properly resourced through investment in staff time, as it can be complex. Due to a lack of resources, there is a tendency for agencies to consult rather than effectively collaborate and a lack of resources can limit third party organisations acting as facilitators. Participants expressed a view that with austerity, Brexit and other uncertainties such as climate change, there is a strong need for collaboration. However, resource constraints have an impact on staff knowledge such as reducing specialist coastal officer capacity in government agencies and local authorities. An important distinction is made between sustained funding to support collaboration, compared to project-based funds for communication or consultation effort, with recognition that long term funding commitment is required to be most effective. In addition, over 60 participants (28%) referred to the lack of incentive, drive or shared aim to engage in collaboration, which is typically deterred by vested/self-interests and conflicts of interest. The incentive to collaborate is also affected by a lack of understanding, trust or knowledge of the roles and responsibilities of different stakeholders, the complex policy framework, multiple issues and the lack of political will and/or government support towards (investing in) collaborative effort. Competition between political parties, poor democratic accountability (i.e. MPs' constituencies not extending into the marine space), short term horizons, ambiguous/failed political direction and imbalances between stakeholders and power holders were identified as barriers to collaboration.

Building on the answers to the R1 survey, greater clarification was required over how to strengthen collaborative efforts. In R2 participants were asked: *Which of the following factors need most strengthening to improve the effectiveness of collaboration across the land-sea interface in coastal*

areas? (R2 Q8, Q9). Answers were ranked in order of importance (1=least important to 7=most important) for each question and combined for this analysis. Results are presented as mean rank scores ($\bar{x}$) out of 7.

Nearly half (42% *n*=47) of participants ranked the need for a longer-term (as opposed to project-based approach) to improve the effectiveness of collaboration across the land-sea interface ($\bar{x}$=5.8). One-third (32% *n*=36) of participants ranked political will towards the coast of most importance ($\bar{x}$=4.9). High ranking was also given for cross-sector collaboration ($\bar{x}$=4.8) and cross-boundary collaboration ($\bar{x}$=3.9). Staff capacity, particularly in statutory organisations, was identified to need strengthening. Policy incentives towards the coast and policy incentives to encourage collaboration were also ranked highly ($\bar{x}$=4.3). The least support was given to strengthening statutory consultations ($\bar{x}$=2.7). Further details are shown in Figure 7.8 below.
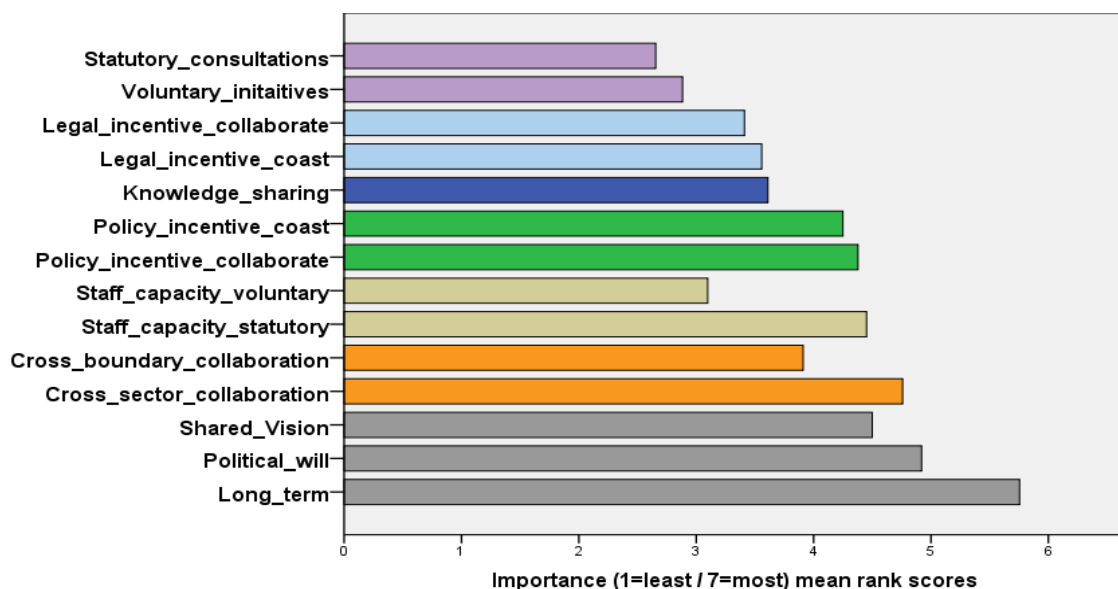
Figure 7.8 Factors important for strengthening effective collaboration across the land sea interface (R2 Q8, Q9)

Based on the above results and analysis, an overarching statement was proposed for R3 verification with a list of options as shown below. They indicated strongest consensus around strengthening a long-term (as opposed to project-based) approach (98%), cross-sector (98%) and cross-boundary (98%) collaboration, incentivising political will (96%) and policy incentives (94%). Participants also agreed there was a need to increase staff capacity (89%), strengthen voluntary initiatives (87%) and legal incentives (82%). It should be noted that the statement about statutory consultations did not obtain consensus, possibly due to confusion over the wording of the question or an indication that there is strong divergence of opinion about their effectiveness.

Consensus

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Collaboration maybe strengthened through:		DS	D	A	AS	DK	n =	%
5.1	A long-term (as opposed to project-based) approach;	0	1 1%	25 28%	62 70%	1 1%	**87**	**98%**
5.2	Political will;	0	3 3%	35 39%	51 57%	0	**86**	**96%**
5.3	Cross-sector collaboration;	0	1 1%	34 38%	53 60%	1 1%	**87**	**98%**
5.4	Cross-boundary collaboration;	0	1 1%	34 38%	53 60%	1 1%	**87**	**98%**
5.5	Increasing staff capacity;	0	4 5%	33 37%	46 52%	6 7%	**79**	**89%**
5.6	Policy incentives;	0	3 3%	53 60%	30 34%	3 3%	**83**	**94%**
5.7	Legal incentives;	0	8 9%	44 50%	28 32%	8 9%	**72**	**82%**
5.8	Voluntary initiatives;	0	9 10%	60 68%	17 19%	2 2%	**77**	**87%**
5.9	Collaboration is not incentivised by statutory consultations so they do not require strengthening.	6 7%	40 45%	22 25%	5 6%	16 18%	**27**	**31%**

Workshop: Priority Actions

Participants discussed the need for a statutory duty and/or requirement for collaboration which involves socio-economic duties as well as the environmental angle (which ICZM and coastal partnerships originated from). Forums (e.g. Dorset, Thames) need reliable funding and mutual interest and involvement from all relevant stakeholders. A national strategy for the coast is needed to generate a coastal voice and strong vision for the coast, ideally led from the Cabinet Office (not Defra) and involving all regulators. Responsibilities for regulation which are devolved need to be supported by advice (from statutory bodies). A national framework which allowed parties to engage but also enabled bottom-up work within fair processes was envisaged. There is a need for central research to provide solutions and broaden collaboration. The existing approach to consultation (on a project-by-project basis) absorbs a huge amount of community effort, encourages silos instead of cross-sector collaboration and often misses issues around social equity. The agreed statement put forward from the workshop to help override drivers and barriers to collaboration was:

- **There should be a national strategy for the coast at/above central government to integrate departments (Cabinet Office level) (B1)**

Through e-voting in the plenary session, the level of agreement by all workshop participants was **72% consensus:** 44% of workshop participants strongly agreed and 28% agreed, whilst 6% (1

participant) disagreed and 22% (4 participants) said 'don't know'. Overall, this action statement received 11% of the final votes and was ranked 4th= out of the 14 top actions.

Response stability

A wide variety of views were presented about the drivers/mechanisms for collaboration in R1 with the approach to governance and legal/policy drivers considered most important. When balanced with the results on barriers, it was clear that there is appetite to do more, but resources and capacity are a huge constraint. R2 therefore aimed to test how to strengthen collaboration by offering two lists of possible factors (based on the R1 results). Most of these were re-tested in R3, but some of the lower ranked answers were reduced from 14 to 8 factors (e.g. staff capacity whether voluntary or statutory; policy and legal incentives in general rather than specifically towards the coast or to collaborate). The strongest response stability was around long-term approaches which demonstrated less variance (S=1.5) than political will (S=1.9) in R3. Good response stability was also shown for strengthening cross-sector and cross-boundary collaboration and policy incentives. It was interesting that staff capacity didn't feature higher considering the R1 response which found resources to be the biggest barrier. Legal incentives and voluntary initiatives (in themselves) required less strengthening than the other factors, but still obtained high levels of consensus. Response stability could not be reported around the importance of statutory consultations - the R2 result showed a lower-than-average level of importance, but when asked in R3 whether statutory consultations required strengthening, participants responses were divided. Instability in the response could have been due to the ranking which forced the participants' choice.

Some divergence of opinion about the value of strengthening voluntary and legal approaches was consistent across the three rounds. Further analysis of the R3 results by participants attributes suggested that the majority of participants felt that voluntary approaches needed least strengthening, but participants with 'all' interests ranked voluntary initiatives as needing most strengthening. This could indicate that voluntary initiatives at the coast are weaker than terrestrial initiatives. It is of particular interest that more participants (9%, *n*=8) answered 'don't know' to strengthening legal incentives than anything else. Also of note is that in R1 a similar number of participants felt that (recognition of) the coastal ecosystem (e.g. personal attachment and planning across boundaries) was equally as important as resources to drive collaboration (10%). The high levels of consensus in R3 that showed collaboration could be strengthened through more cross-sector and cross-boundary collaboration (96% and 98% agreement). Further analysis of the response to the strengthening of a long-term approach illustrated how participants moved towards a higher

level of consensus, especially those whose main interest was terrestrial, as shown in Table 7.. This is an example of where the Delphi approach can lead to participants' perspective evolving through engagement in the research.

Table 7.6 Participants perspectives on the need to strengthen a long-term (as opposed to project-based) approach based on their primary interest (marine/terrestrial/coastal).

Participant attribute	R2 (%) of participants			R3 (%)of participants			RESPONSE STABILITY
	Most strengthen	Strengthen	TOTAL	Strongly Agree	Agree	TOTAL	
Marine	47.4	15.8	64.5	74.1	**22.2**	**96.3**	Increased from 47% most strengthen in R2 to 74% strongly agree in R3 – an increase of 27%
Terrestrial	**22.2**	**77.8**	**100**	**66.7**	**33.3**	**100**	**Significant increase: most strengthen 22% in R2 to strongly agree 66% in R3 – an increase of 44%**
Coastal	**43.3**	**26.7**	**70**	**65.2**	**34.8**	**100**	Increased most strengthen 43% in R2 to strongly agree 65% in R3 – and increase of 22%.

<u>Note</u>: Statistical confidence in these observations was limited due to the use of a 7-point scale in R2 and 4-point scale in R3.

7.7 <u>Theme B</u>: Summary of Results

Collaboration is significantly embedded in what participants do and the benefits appear to outweigh the challenges and risks of investing in collaborative effort. To strengthen collaboration across the land-sea interface, long-term (as opposed to short term project) approaches are an important driver and participants' initial response suggested that resourcing this is most important. There was strong agreement around strengthening cross-sector and cross-border collaboration and political will. Other factors which reached consensus were [strengthening] policy, legal and voluntary incentives and increasing staff capacity. Participants observed the need to obtain a coastal voice covering social, economic (as well as) environmental (beyond Defra) issues. They would be driven across government departments, with statutory responsibility across the three pillars of sustainability for advice. A national strategy for the coast at/above central government could integrate departments (Cabinet Office level) and reduce reliance on regulatory functions. Examples of who could build this approach included research councils, government (including EU) and CEPs but *not* big NGOs who were not seen as leading collaboration or inclusive enough of the social agenda. A summary of the responses for Theme B is provided in Table 7. .

Table 7.7 Summary of results for Theme B: collaboration to strengthen coastal governance

B: COLLABORATION	CONSENSUS (%)				BACKGROUND			
R3 Question number and verification statements with the highest consensus	**A+AS**	**AS**	**A**	**DS+D**	**R2 Question number and summary of results**		**R1 Question number and summary of results**	
R3_Q4 (S4) — There is value in seeking to strengthen collaborative efforts across the land-sea interface	100	75	25	0	R2_Q6 Benefits (O)	Increasing understanding, sharing knowledge/evidence and perspectives: multiple benefits. Stronger buy-in, collective ownership, responsible management and greater compliance. Efficient use, build capacity towards holistic approach, evolution of shared/longer-term vision.	R1_Q9 Extent	72% participants 'significantly embedded' in what they do.
					R2_Q7 Disadvantages/ challenges (O)	Time and resources but if risks minimised worth investment. Risks such as domination of vested interests/powerful voices, lack of clarity over responsibilities, raising expectations, participation fatigue/disillusionment, quality of decision-making (less science) and consensus leading to compromise/valid views lost or failure to achieve agreement. To reduce risks: leadership, clarity, balance, convenor/space, monitoring.	R1_Q9a Concept	Working together (28%); common aim/shared understanding (27%); stakeholder input/involvement (18%); ownership/a 'commons approach' (14%). Fairly common understanding of the process and potential benefits, but views differ on *how* to go about it.
Strengthen through: R3_Q5.1 (S4) — A long-term (as opposed to project-based) approach;	98	70	28	1	R2_Q8 & Q9 (R7) Drivers and barriers: strengthen collaboration through:	Strengthen collaborative efforts: - long-term (as opposed to project-based) approach (42% x5.8) - political will (32% x4.9) - cross-sector (x4.8) and cross-boundary (x3.9) collaboration - **staff capacity, particularly in statutory organisations (x4.5)** - policy incentives to collaborate (x4.4) and towards the coast (x4.3) Medium support (below x4) to knowledge sharing, and legal incentives to collaborate and towards the coast. Least support to strengthening statutory consultations (x2.7) and voluntary initiatives (x2.8).	R1_Q9b Drivers/ mechanisms	*Approach (28%)*: Community and stakeholder engagement; facilitation role of a chair/leader; accountability, transparency, trust and understanding. Legal & policy framework (21%): MMO, marine planning, SMP coastal groups, ICM initiatives, coastal concordat, CCTs. Incentive/Drive (14%): shared interests, political will. **Coastal ecosystem (10%): personal attachment, planning across boundaries.** **Resources (10%) to facilitate collaboration.**
R3_Q5.3 (S4) — Cross-sector collaboration;	98	60	38	1				
R3_Q5.4 (S4) — Cross-boundary collaboration;	98	60	38	1				
R3_Q5.2 (S4) — Political will;	96	57	39	3				
R3_Q5.6 (S4) — Policy incentives;	94	34	**60**	3			R1_Q9c Barriers	*Resources and funding (32%),* lack of investment in staff time limits third party facilitation and coastal officer capacity. Tendency to consult rather than effectively collaborate. **Project-based funds as opposed to sustained funding: long term funding required**. Incentive (28%) vested/self-interests, lack of understanding, trust, knowledge of roles/responsibilities, short-termism, power imbalances. Approach to governance (15%), institutions (9%) and legal/policy framework (8%)
R3_Q5.5 (S4) — Increasing staff capacity;	89	52	37	5				
R3_Q5.8 (S4) — Voluntary initiatives;	**87**	19	**68**	**10**				
R3_Q5.7 (S4) — Legal incentives;	82	32	50	9				
WORKSHOP IMPLEMENTTAION ACTION(s): *How and who is best placed to mobilise these drivers for collaboration?*								
B1: National strategy for the coast at/above central government to integrate departments [Cabinet Office level].								
Participants observed the need to obtain a coastal voice covering social, economic (as well as) environmental (beyond Defra) driven across Government depts. and statutory responsibility across these three pillars for advice not just regulatory functions. Examples of who could build this approach included coastal partnerships (Dorset, Thames, Suffolk); research councils and government (inc EU) but *not* big NGOs who were not seen as leading collaboration and not inclusive enough of the social agenda.								

7.8   RESULTS PART ONE:

Approach to Governance and Collaboration: the foundations for Collaborative Governance

The results from Theme A and B underpin the rationale for the research: that more effort is needed to facilitate linkage between top-down and bottom-up approaches. Participants recognised the need to enhance collaborative governance by bringing people together through through partnership working, stakeholder engagement, co-design and management. There is a need for a stronger and clearer national framework where statutory approaches are supported through facilitating networks to better engage with them; whilst continuing to invest in bottom-up direction and decision-making. Three quarters of participants considered that collaboration was already 'actively embedded' in what they did, but that staff capacity for it, particularly in statutory organisations, is limiting their effectiveness. Collaborative effort needs strengthening towards a longer-term approach, requiring less emphasis on short-term projects and is likely to require political will and policy incentives. Cross-sector and cross-border collaboration require strengthening and may present a driver for collaboration.

The actions which emerged from the workshop were considered the first three (out of four) most important (see Table 9.3): regular local monitoring and engagement sustained through a national policy requirement (A1); bring people together through a shared vision underpinned by appropriate governance and sustainable finance (A2); and a national strategy for the coast (B1).

8 RESULTS PART TWO: INSTITUTIONS AND PLANNING

Theme C considered the characteristics, roles and responsibilities of the governing institutions which are perceived to drive collaborative effort. Theme D focused on collaboration between marine and terrestrial planning authorities and options for improvement. The scale and connectivity between plans and leadership for coastal planning were explored. Six priority actions for implementation were identified by the workshop participants, three from each theme. The results reported in this chapter draw primarily on the highest levels of consensus found in the verified R3 statements, backed up by data from R2 which included analysis by participants scale, sector and (from R1 attribute values) their perspective in terms of geographical scale and their role in multisector initiatives. A summary table of the R2-R3 results is presented in Table 8.2 for Theme C and Table 8.4 for Theme D.

8.1 Organisations and the Institutional Framework (Theme C)

Within the qualitative R1 data there were many references made to organisations strengths, weaknesses, opportunities and benefits as described in the R1 report (Appendix 1F). The qualitative data analysis on the R1 results provided the foundation for the R2 questions and the R3 results which are presented together in this chapter under three headings:

i) organisations driving collaboration (R2 Q10, R3 Q6); the characteristics of those organisations which determine effective collaboration (R2 Q11, R3 Q7); and actions to improve clarity and understanding of their roles and responsibilities (R2 Q12, R3 Q8) as this was identified as a barrier to driving collaboration – presented in Section 8.2.

ii) leadership for coastal governance (R2 Q13, R3 Q9) – presented in Section 8.3.

iii) local community/ecosystem scale collaboration (R2 Q14, R3 Q10) – presented in Section 8.4.

8.2 Organisations Driving Collaboration

Organisations were considered more likely to present barriers (than drivers) to collaboration, requiring significant resources to overcome them (see Section 7.4.3). The frequency of references in the R1 results suggested greatest strength in EMS, CEPs, MPAs and MCZs (see Appendix 1F, R1 Report, p.8), but this required further testing through R2 and R3.

Participants were asked in R2: *To what extent are the following organisations <u>currently</u> driving collaboration for the coast?* (R2 Q10). Each of the organisations listed were ranked on effort and the results presented as mean rank scores ($\bar{x}$) in Table 8.1.

Table 8.1 Organisations currently driving collaboration for the coast (R2 Q10)

ORGANISATION	Mean Rank Score (1=lowest/7=highest)
Coastal & Estuary Partnerships (CEPs)	5.96
Marine Planning Partnerships (SCOTLAND)	5.15
European Marine Site (EMS) Management Groups	5.09
Community-led initiatives and local voluntary approaches	4.98
Non-Governmental Organisations (NGOs) – national level	4.93
Marine Planning Authorities	4.79
Coastal Groups for Shoreline Management Plan (SMP)	4.68
Inshore Fisheries & Conservation Authorities (IFCAs)	4.67
Coastal Community Teams (ENGLAND)	4.29
Statutory Agencies	4.18
Public Service Boards (WALES)	3.74
Local Authorities	3.62
Regulators	3.56
Port/harbour authorities	3.24
Central Government	3.10
Consultants	2.47
Developers	2.40

The top three organisations considered to be driving collaboration for the coast the most were: CEPs, MPPs and EMS groups. The highest rank score 'makes substantial collaborative effort' was assigned by 39% of participants (*n*=44) to CEPs compared to EMS at 18% (*n*=20) but a high proportion of participants (31%) responded that they didn't know what EMS groups were compared to the CEPs (13%). A high proportion of participants answered 'don't know' for Public Service Boards in Wales (81%), Marine Planning Partnerships in Scotland (66%) and Coastal Community Teams in England (55%). Most variance between participants answers occurred around consultants and port/harbour authorities with least variance around national agencies and statutory agencies, both of which were scored quite low for their collaborative effort.

Of the 115 responses, 36 participants offered further explanation for their answers, such as *"Coastal fora are one of the best ways potentially, because they can draw in expertise from a wide range of organisations and individuals and especially those with local knowledge"* (039)[118]. Suggestions for other organisations driving collaborative efforts included those with a duty to co-operate (127) but in general, participants considered that governance structures for the public sector are not set up for

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[118] Participant ID numbers

collaboration and disciplines are in silos (092). The overall lack of legal or policy requirements to collaborate could mean the quality of engagement effort is compromised with variable attempts at it and poor skill-sets to lead it[119]. Many organisations were seen to do something to drive collaboration but few were considered to actually champion the process because it is not a legal requirement or their primary function[120]. Participants cited opportunities to drive collaboration through the emerging experience in Wales with the Public Service Boards Area Statements, and in Scotland through the Marine Planning Partnerships, where simpler governance could optimise public benefit, especially if it encouraged a unifying vision. An interesting observation was made about the role of the Crown Estate (the main owner of the foreshore and seabed) doing little to support collaboration (168).

Consensus: organisation driving collaboration and their characteristics

The R2 findings were generalised into three statements for R3 verification and showed consensus (R3 Q6.1, 76%) that collaboration is mainly driven by initiatives established for the purpose of integration (e.g. Coastal and Estuary Partnerships), planning (e.g. Marine Planning Partnerships) or conservation (e.g. European Marine Site management groups).

R3	Statement	Total Participants Response n = number of participants % = proportion of participants					Total Consensus Agree + Strongly Agree	
Organisations Driving Collaboration		DS	D	A	AS	DK	*n=*	%
6.1	Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation.	0	14 16%	54 61%	13 15%	8 9%	**67**	**76%**
6.2	Community-driven, voluntary and non-governmental initiatives are effectively driving collaboration at the local and national level.	2 2%	24 27%	41 46%	16 18%	6 7%	**57**	**64%**
6.3	Government bodies, agencies and groups with more sectoral statutory responsibilities are more limited in their capacity to drive collaboration due to it not being a core part of their remit.	2 2%	13 15%	44 50%	23 26%	6 7%	**67**	**76%**

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[119] Example comments included: *"no organisation is making significant collaborative effort"* (123);*"we have rarely seen even the basics of genuine collaboration in the UK - this is an area for major innovation and learning"* (019).Participants' indicated that collaboration needs to be better resourced, with a clearer policy/legal requirement and skills training, combined with passionate individuals to drive it.

[120] Example comments included: *"I am not sure that driving collaboration is a priority for organisations where it is not their primary function. There are other more pressing matters"* (098). *"If collaboration is not a legal requirement, it's very difficult for authorities to prioritise it with the currently very tight budgets they have to work to"* (018). *"Open collaboration is hampered by lack of capacity and priorities within government and lead governmental agencies"* (075).

Participants highlighted the limited capacity of sectoral statutory bodies to drive (and possibly engage) in collaboration due to it not being a core part of their remit (R3 Q6.3, 76%). Partnership approaches are strongest if combined with staff capacity and continuity (R3 Q7.2, 93%) and the right skills to drive effective collaboration such as networking, facilitation, leadership and fairness (R3 Q7.1, 98%). Participants frequently commented on the funding commitment for collaborative effort, for example[121] *"A lot of the good work is driven by short term projects - more and longer term investment would allow effective partnerships to build and consolidate instead of constantly chasing money to carry on with their activities. Trust and longevity, are key components of successful partnerships that deliver successful projects"* (050).

Compared to partnership approaches, the setting of targets to drive collaboration was not considered a major driver at the current time (R2 Q11, $\bar{x}$=2.7) but in R3 showed consensus that there is value in further exploration of targets to drive collaborative effort (R3 Q7.3, 77%).

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
	Characteristics of Effective Collaboration	DS	D	A	AS	DK	n =	%
7.1	The right skills to drive effective collaboration include networking, facilitation, leadership and fairness.	0	1 1%	36 40%	52 58%	0	**88**	**98%**
7.2	Partnership approaches are the strongest characteristic of effective collaboration if combined with staff capacity and continuity.	0	2 2%	25 28%	58 65%	4 5%	**83**	**93%**
7.3	The value of targets to drive collaborative effort are worthy of further exploration.	2 2%	10 11%	50 56%	19 21%	8 9%	**69**	**77%**

Response Stability

There was strong response stability between R2 and R3 over the type of organisations that drive collaboration – those that are designed for the purposes of integration, planning or conservation - mostly the CEPs, EMS groups and MPPs. There was also good stability around the response that government bodies, agencies and groups with more sectoral statutory responsibilities are more limited in their capacity to drive collaboration due to it not being a core part of their remit. There was less stability around the value of targets to drive collaboration, with the low score in R2

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[121] Participant comments included: *"We need funding that can or may be unlocked by collaboration to drive partnership - real carrots"* (116). *"Need a driver for collaboration and funding commitment to allow continuity and capacity of staff to drive forward projects"* (123).

reflecting current practice, possibly due to the ranking requirement of the question[122], as the R3 consensus suggested potential in the value of further exploring targets to drive collaborative effort. No particular trends could be detected between participants attributes – of those who thought that setting targets to require collaboration most effective (*n*=10), their main interests were 'all' (*n*=4) or marine (*n*=2), and most (*n*=9) held roles as managers or advisors/consultants.

Consensus: actions to improve clarity around organisations roles and responsibilities

A barrier to driving collaboration identified in R1 was a need to improve clarity and understanding about organisations roles and responsibilities. Based on the most commonly cited factors from the R1 qualitative data analysis, criteria were tested in R2 (Q12) and R3 (Q8). Highest consensus was shown around the need to link services and co-ordinate management responsibilities, particularly in the government sector (R3 Q8.4, 93%). Agreement was also achieved on creating a single overview role for coastal matters at the national level (R3 Q8.1, 76%) but not at the local level (R3 Q8.2, 66%), although the level of disagreement was quite high (18% and 20%). There was inadequate agreement over divesting more responsibility from higher to lower tiers of government (R3 Q8.3, 62%) which might be expected from this 'expert' group of participants.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
	Actions to Improve Clarity and Understanding of Roles and Responsibilities	DS	D	A	AS	DK	n =	%
8.1	Creating a single overview role for coastal matters at the national level.	0	16 18%	45 50%	19 21%	9 10%	**64**	**71%**
8.2	Creating a single overview role for coastal matters at the local level.	1 1%	18 20%	36 40%	23 26%	11 12%	**59**	**66%**
8.3	Divesting more responsibility from higher to lower tiers of government.	3 3%	11 12%	40 46%	14 16%	20 23%	**54**	**62%**
8.4	Linking services and co-ordinating management responsibilities, particularly in the government sector.	0	0	47 53%	35 40%	7 8%	**82**	**93%**

Additional explanation was provided by 23 participants in R2, some of whom expressed concern about the forcing of choice in the question through the ranking process. Most discussion was about streamlining responsibilities - on the one hand, it was seen as a potentially attractive means of simplifying management by reducing the number of organisations and the need for networking. On the other hand, participants saw that there is no need for streamlining if the other (collaborative) measures were given more priority.

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[122] *"All these elements are important for success - difficult to rank and will vary on a case by case basis"* (153),

Participants considered the need for an incentive to collaborate, because regulatory bodies find it difficult to justify investment in this. Experience from the Catchment Based Approach (CaBA) which was driven by the Water Framework Directive was a good example, as were CCTs acting as a catalyst to attract funding to the coast. Much collaboration was driven by project-specific needs, with stakeholders contributing on an ad-hoc basis through consultations as they arise in relation to a specific duty. It was considered that people will only get involved when they think they can influence change, therefore participants suggested there is a need for interdisciplinary, *place*-based not *theme*-based investment and to find a local champion or representative to celebrate the coast. It was considered better to have a site focus than desktop-based approach which may lead to a lack of proper consultation/engagement. It was suggested that a Minister for the Coast with a support officer would help to drive investment from the national level. To achieve this, the following policy driver was proposed (R3 Q7):

- **Identify areas within the 25 year Environment Plan which mention collaboration to illustrate its value to support delivery [of the Marine Pioneer] (C1).**

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

➔ 77% consensus: 53% of workshop participants strongly agreed and 24% agreed, with 6% (*n*=1) disagreeing and 18% (*n*=3) saying 'don't know'.

Overall, this statement received 5% of the final vote and was ranked 9th out of the 14 top actions.

Workshop participants highlighted that partnerships often form in a crisis and collaboration can be taken for granted when working well. However, collaboration needs to be part of people's core remit to ensure service continuity. Relationship building gets lost with high staff turnover and short-term contractors and knowledge can get dispersed. The characteristics of effective collaboration include building up trust through regular meetings and conversations for which certain types of people skills are required. It was recognised that statutory consultations are very focused and it was questioned whether they could they be made looser and more flexible. A specific engagement officer is often necessary and the task itself should dictate how much collaboration is required[123].

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[123] By way of example, the identification of MCZs took a more bottom-up approach and a lot longer compared to a statutory consultation approach.

Regarding clarity around organisations' roles and responsibilities, workshop participants were hopeful that new forms of governance could emerge from the 25 year Environment Plan[124]. The proposed integrated area/natural capital plans don't currently apply to the marine space, but if the informal side of this was strengthened it could bring in larger numbers of people to join land and sea. Coastal Partnerships could be influencers however collaboration issues can emerge, such as a dysfunctional parent organisation. In marine space there is a culture of focusing on problems and using the tools available[125] rather than considering new forms of governance. Capacity is needed at the national and local levels, perhaps through an overarching plan (for the coast) with smaller plans embedded within it at the required scale (see theme D).

8.3   Leadership for Coastal Governance

Participants in R1 recognised that a lack of leadership and vision presents a barrier to coastal governance, and with the fragmented and complex institutional framework, it is not clear where leadership should come from. Participants were asked who is best placed to lead or champion the coast at different scales (R2, Q13) for which the results are shown in Figure 8.1.
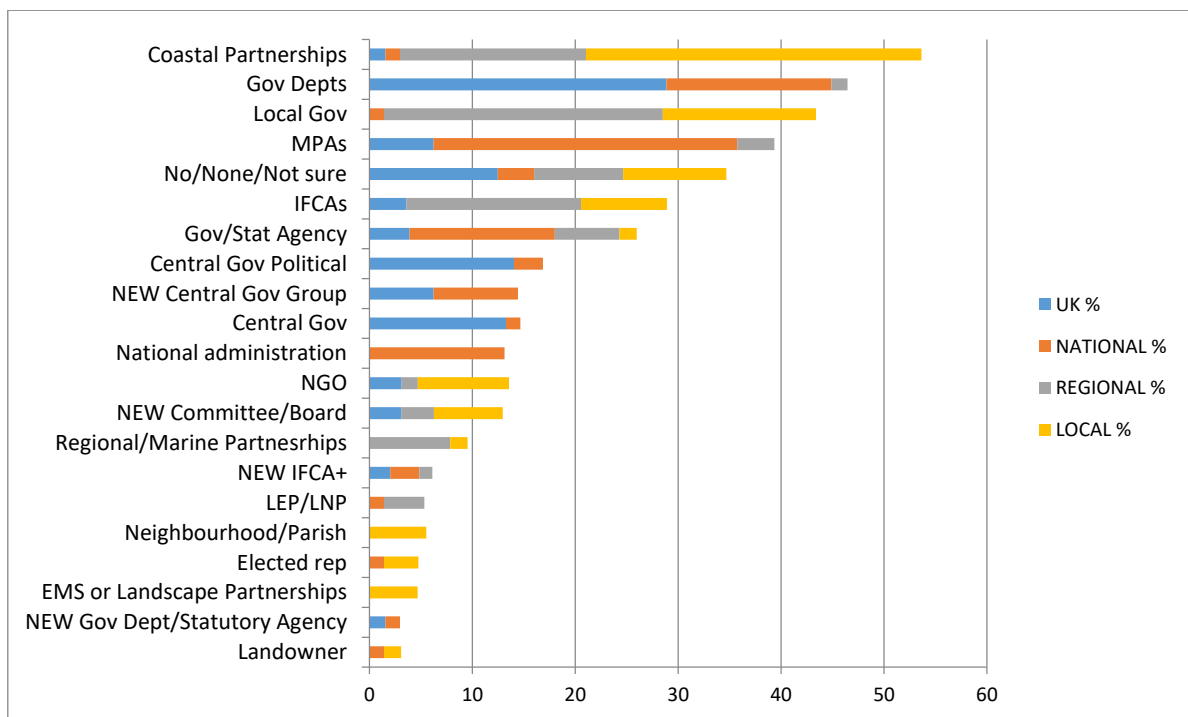
Figure 8.1 Number of participants identifying existing or new organisations best placed to lead or champion the coast at different scales (R2 Q13).

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[124] For example, could there be value in a Coastal Trust having a statutory role that also involved non-statutory representatives?
[125] For example, MPAs and 'maximum sustainable yield' for fisheries management.

An explanation of the results associated with each of these scales is provided in the R2 report (Appendix 3, Annex C p23-24). There were clear 'frontrunners' at each scale which were tested for consensus in R3. Overall, the most support was given to strengthen leadership at the regional and local scale (R3 Q9.3, 93% *n*=81) followed by national (89% *n*=78) and UK scale (85% *n*=75). This required further comparison with the R2 results considering the caution which had been expressed around devolving more powers or any new overview role at the local level.

Consensus

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Leadership for Coastal Governance could be strengthened:		DS	D	A	AS	DK	**n =**	**%**
9.1	At the UK scale from Ministerial and Government Departments;	0	5 6%	45 51%	30 34%	8 6%	**75**	**85%**
9.2	At the national scale through Marine Planning Authorities, but clarity and drive is needed to consider how coastal governance sits alongside other statutory agencies;	1 1%	4 5%	49 56%	29 33%	5 6%	**78**	**89%**
9.3	At the regional and local scale by Local Authorities and Coastal Partnerships with IFCAs playing an increasing role.	1 1%	3 3%	40 46%	41 47%	3 3%	**81**	**93%**

At the regional or sub-regional level, local authorities were most cited to provide leadership (R2 Q13, 27% n=17) followed by CEPs (18% n=12) and IFCAs (17% n=11). Suggestions for new leadership were made for a new committee/board (*n*=2) with representatives from regulators, community and experts or a new coastal system operator linking the coast to the inland catchment: *"The regional level will only respond if there is a legal duty to do so and there is funding available"* (123) and *"The emergence of sub-regional groups in England 'is interesting and organic"* (106)*.* This idea and collaboration at the local community/ecosystem scale was therefore tested again through R3 Q10.

Local Enterprise Partnerships (LEPs) were reported to lack focus on the coast[126] and MPPs might be an option if they were more embedded with the land sea interface (013). At the *"cross boundary level, coastal partnerships operate across both local authority and country divides and are often set up at a scale appropriate for that local community or ecosystem"* (090) and it was suggested that this

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[126] For example: "*Possibly a role for LEPs although ours is only really concerned with commercial development and road building*" (053). Other general observations included: "*co-locating marine, environmental, planning, regulatory and enterprise staff*" (031), the *"coast should be generally raised up the agenda in all relevant organisations"* (064); *"needs a bold vision and landmark projects"* (123).

approach could be taken further: *"A new coastal system operator body is needed: this should be linked to an inland catchment operator"* (111).

Other observations for leadership (R2_Q13) included the value of university research, marine SAC Relevant Authority Groups, 'enlightened' Harbour Authorities, an NGO such as the Marine Conservation Society, a charitable land owner such as the National Trust and *"NGOs/single issue campaign groups either at local or national level [who] may also play a role as coastal champions for particular areas"* (165). Overall, the results clearly show that leadership needs to come from the public sector, particularly at the UK and national scale. There was very little reference to the private sector, only through the role of LEPs as possible leads at the regional scale for England. Government departments, statutory agencies and marine planning authorities have a strong role to play at the UK and national scale and there were some useful suggestions about how this could be strengthened (above). The role of LAs, CEP and IFCAs at the regional and local levels is strongly supported by participants. However the wide spread of responses to this question (>20 types of organisation), the proportion of participants who didn't respond to one or more scales (40-50%) or were unsure of leadership (*n*=>20) illustrates the existing complexity and divergence of views over current coastal governance arrangements.

Workshop: Priority Actions

There were no specific implementation actions proposed by workshop participants. However, the priority action statements closely linked to the question of leadership were A1 (national policy requirement), A2 (shared vision), B1 (national strategy), C1 (local collaborative efforts) and E2 (vision).

Response stability

Results showed high levels of response stability emerging from the R1 qualitative data references to organisations through R2 and R3. Very useful insights were provided into the organisations best placed to lead or champion the coast at each scale. In R3 the recommendations were made clearer, to focus firstly on the regional and local scale, in particular through LAs and CEPs, followed by the UK scale from ministerial and government departments, then the national scale through the example of MPPs. The focus on four organisations best placed to lead or champion the coast was consistent across R2 and R3: LAs, CEPs, government departments and MPAs, suggesting that this is where leadership should be strengthened first.

8.4   Collaboration at the Local Community/Ecosystem Scale

A quarter of responses to the R1 survey identified value in improving coastal governance for the benefit of the coastal ecosystem and future resource sustainability (see Appendix 1F, R1 Report, p.12). This was explored further in R2 to identify who and what structures are best placed to encourage place-based governance. Participants were asked: *Which of the following initiatives would you prioritise to support collaboration at the local community/ecosystem scale?* Participants were asked to choose their top three in order of priority from a list of 16 identified by the researcher from the R1 data (see Appendix 2E, R2 report, p. 25-6).
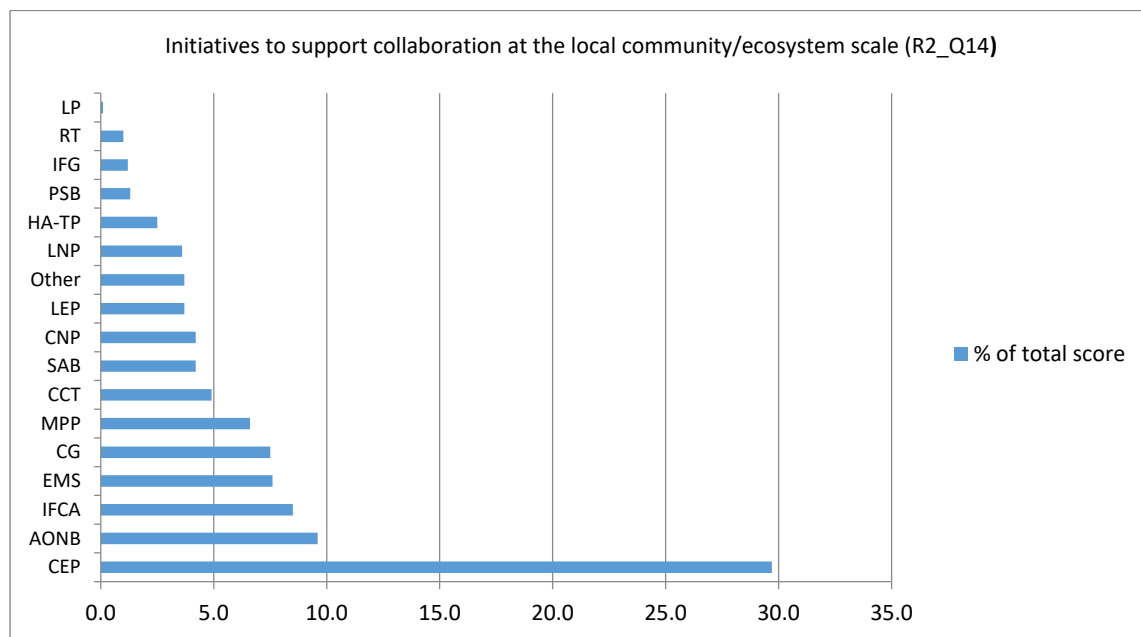
Figure 8.2 Initiatives to support collaboration at the local community/ecosystem scale (R2 Q14)

CEPs obtained one-third of the overall responses with 69% (n=77) participants choosing them within their top-three, and 45% (n=50) as their 1st choice. Analysis of the 50 participants who chose CEPs as their first choice illustrated that 26% of them were engaged in multisector initiatives in a voluntary capacity and of those, 42% were representative of regulators and 20% as mangers in sector roles. This reflects the level of invested time which is not part of their core remit or statutory duty. Of the R3 participants who 'strongly agreed' to build on coastal, catchment and marine partnerships, the average number of multisector initiatives they engaged with was $\bar{x}$4.2 (out of 7) which was close to the overall group average. Other results were much more evenly distributed across the other 14 initiatives which support collaboration, as shown in Figure 8.2. Other organisations/initiatives were identified by 19 participants including suggestions that local authorities could have a stronger role

and have a duty to consider the coast and that there is a need for collaboration across these initiatives[127].

The most common characteristics identified by participants to drive collaborative effort at the local community/ecosystem scale were cross-sector/multi-sector convenors who had good facilitation skills, were approachable, provided independence, promoted consensual working and balanced representation, had a sense of longevity, provided leadership (at all levels) and offered shared vision. Governance should be open, transparent and integrated with strong support from all levels of government. Access to information, knowledge and expertise are considered to be important. Partnership initiatives were considered to strongly drive collaborative effort due to their defined focus, often at a local scale, especially where they are seen as well supported, holistic groups with well-formed and trusted relationships leading to greater buy-in and self-regulation. Strength exists in the statutory role of initiatives such as Marine Planning Partnerships (Scotland) which may offer a route for voluntary coastal partnerships. However a clear structure, role and resources for implementation are important, with partners willing to share the effort and costs. A specific suggestion to support collaboration included utilising LEPs and PSBs to help lever in 'harder-to-reach' business sectors. The value in an overview body to support lots of smaller initiatives was suggested, based on the current existence of many initiatives each with a narrow focus. Networks supported by stronger legal measures were proposed. Collaboration across land and sea could involve stakeholders who wear multiple hats or an overview body that supports smaller-scale initiatives (098)[128].

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[127] A useful example was provided: the Cornwall Marine Liaison Group which brings together statutory and non-statutory, private sector, academics and others three times per year as an example of true collaborative working; however there is a notable absence of active CEPs in Cornwall.

[128] Other examples offered by participants included:

"The problem with many of the options above is that although they may offer excellent partnership working they aren't inclusive enough, focusing perhaps on only one or a few sectors (e.g. IFCA - fisheries and conservation, not necessarily other industry or recreation or tourism; Coastal groups [are] great for climatic forward planning or pollution control etc., but perhaps not great for recreation or fisheries".(102)

"Coastal partnerships offer a defined focus at a local scale. IFCAs provide a good link between local and national priorities, also offer clout with statutory role. LEPS are embedded regionally and are well established with hard-to-reach stakeholders and the business community, therefore would offer links that are rarely touched on at present".(038)

"Coastal advisory groups (CAGs) exist everywhere, but are perhaps too large for effective local community collaboration. Coastal and estuary partnerships are good for local engagement, but don't exist everywhere (042). Use of existing local and regional bodies is more effective. CAGs do work at ecosystem level, but have single focus" [on flooding and coastal erosion risk management].(075).

"I think that some form of statutory purpose is important to support buy in and longevity of the work (hence prioritising PSBs or coastal groups over coastal partnerships). Coastal partnerships have demonstrated that they can be highly effective in driving collaboration but the lack of core funding means that their activities and support can be sporadic".(088).

Consensus: Driving collaboration at the local community/ecosystem scale

As shown in the table below, the verification survey results indicated a high level of agreement to support collaboration at the local community/ecosystem scale through a cross-sector convening role (91% *n*=81 participants) which would build on existing and emerging governance structures such as coastal, catchment and marine planning partnerships (87% *n*=78 participants). It would explore new committee/board structures, particularly at the local level involving NGOs/third sector initiatives (71% *n*=63). There was some disagreement with this third statement about exploring new structures at the local level (13% *n*=11) and a number of participants who said 'don't' know' (16% *n*=14), which implies this would need further discussion to determine what it would look like.

Collaboration at the Local Community/Ecosystem Scale		DS	D	A	AS	DK	n =	%
							Agree + Strongly Agree	
10.1	To support collaboration at the local community/ecosystem scale, a cross-sector convening role is needed.	0	4 4%	36 40%	45 51%	4 5%	**81**	**91%**
10.2	This would build on existing and emerging governance structures such as Coastal, Catchment and Marine Planning Partnerships.	0	2 2%	44 49%	34 38%	9 10%	**78**	**87%**
10.3	It would explore new committee/board structures, particularly at the local level involving NGOs/third sector initiatives.	0	11 13%	39 44%	24 27%	14 16%	**63**	**71%**

Workshop: Priority Actions

Participants highlighted that our current approach to governance is more rights-based than process-based therefore limiting application of an ecosystem approach which involves various scales linked to ecosystem processes. However, community intelligence linked to ecosystem services was worthy of consideration. An example was provided for Wales where, under the Wales Environment Act, a statutory duty has been placed on NRW to deliver Area Statements and they can have fuzzy boundaries. It was noted that the degree of buy-in at the local level can depend upon timing of meetings (e.g. evenings to enable local participation) alongside continuity to enable relationship building and retain expertise. Concerns were raised about the accountability of remote leadership (i.e. Defra) and the cost of getting to meetings and volunteer time. Public bodies don't prioritise collaboration as it is not a core role - it requires a high level of resources and some don't see the importance of it. Co-ordination of effort is important to ensure efficient investment in collaborative

effort (e.g. EA representation from all departments) but there was a query about how and who could encourage government organisations to see the value of coastal/estuary forums.

Two priority actions were put forward as a result of the workshop discussions.

C2: Champion local collaborative efforts in order to inspire and demonstrate the difference it can make for delivery on the ground (CEPs)

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

→ **100% consensus**: 59% of workshop participants strongly agreed and 41% agreed.

Overall, this action received 13% of the final votes and was ranked **2nd**= out of the 14 top actions.

C3: Defra review of opportunities for staff promotion and development to encourage the retention of expertise and long term relationships with stakeholders.

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

→ **83% consensus**: 33% of workshop participants strongly agreed and 50% agreed whilst 17% said 'don't know'.

Overall, this action received 4% of the final scores and was ranked 10th out of the 14 top actions.

The recommendations under 'Topic Area C – Organisations/Institutional Framework' were overall considered the **third** (out of 4) most important priority area to improve collaborative governance for coastal stewardship. The full range of scores is shown in Appendix 3C, R3 report, p.79).

Response stability

Between R2 and R3 there was strong response stability over initiatives to support collaboration at the *local community/ecosystem* scale identifying CEPs, plus other initiatives which have a cross-sector convening role such as catchment partnerships, MPPs, AONBs, IFCA, EMS groups and CGs.

8.5   Theme C: Summary of Results

Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation. Community-driven, voluntary and non-governmental initiatives are effectively driving collaborative efforts at the local and national level. The organisations most driving collaboration are CEPs, MPPs and EMS groups. Government bodies, agencies and other groups with more sectoral statutory responsibilities (e.g. marine planning authorities, coastal groups for SMPs and LAs) are more limited in their capacity to drive collaboration due to it not being a core part of their remit.

This limits staff capacity to engage therefore partnerships are the strongest approach if combined with staff capacity and continuity. The right skills for effective collaboration include networking, facilitation, leadership and fairness.

To help improve clarity and understanding of organisations roles and responsibilities, linking services and co-ordinating management responsibilities was considered better than creating a single overview role for the coast - at the national or local level - or divesting more responsibility from national to local levels. Leadership mainly comes from public sector-led organisations and could be strengthened at the regional and local scale by LAs, CEPs and IFCAs. At the national scale, leadership could be strengthened through marine planning authorities, but clarity and drive is needed to consider how coastal governance sits alongside other statutory agencies. At the UK scale leadership could be strengthened from ministerial and government departments, especially if there was a minister for the coast and support officer. The value of targets to drive collaborative effort are worthy of further exploration. To support collaboration at the local community/ecosystem scale, a cross-sector convening role is needed, for which CEPs were considered the best placed alongside existing and emerging governance structures such as CaBA and MPPs.

Table 8.2 Summary of results for Theme C: Organisations and the Institutional framework

C: ORGANISATIONS and the institutional framework	CONSENSUS (%)			DIS	
R3 Question number and verification statements with the highest consensus Note: mean values out of 4.	**A+ AS**	AS	A	*DS+D*	**R2 Question number and summary of results** Note: mean values out of 7
R3_Q7 (S4) <u>Characteristics</u> of effective collaboration – 3 statements • The right skills to drive effective collaboration include networking, facilitation, leadership and fairness ($\bar{x}$3.57) • **Partnership approaches ($\bar{x}$3.66)** are the strongest characteristic of effective collaboration if combined with staff capacity and continuity. • The value of targets to drive collaborative effort are worth of further exploration	**98** **93** **77**	58 65 21	40 28 56	*1* *2*	R2_Q11 **Characteristics of effective collaboration – 7 drivers as sub-questions** - Most effective: **Partnership approaches** (40% of participants $\bar{x}$5.36), networking & facilitation skills ($\bar{x}$4.85) and staff capacity ($\bar{x}$4.32) - Staff continuity ($\bar{x}$3.35) scored less high than staff capacity ($\bar{x}$4.32). - Leadership skills medium score ($\bar{x}$4.19) - Least effective: Set targets requiring collaboration (39% $\bar{x}$2.69); knowledge exchange objectives ($\bar{x}$3.27).
R3_Q8 (S4) <u>Actions</u> to Improve Clarity and Understanding of Roles and Responsibilities – 4 statements • Linking services and co-ordinating management responsibilities, particularly in the government sector. • Creating a single overview role for coastal matters at the *national* level • Creating a single overview role for coastal matters at the *local* level • Divesting more responsibility from higher to lower tiers of government	 **93** **71** **66** **62**	 40 21 26 16	 53 50 40 46	*0*	R2_Q12 **Actions to Improve Clarity and Understanding of Roles and Responsibilities – 7 sub-questions** → **Linking services and co-ordinating management responsibilities ($\bar{x}$5.05, mode 7) least variation (sd 1.61)** → Creating a single overview role for coastal matters at the *national* level ($\bar{x}$4.42 mode 7 but highest variation (sd 2.15) → Creating a single overview role for coastal matters at the *local* level ($\bar{x}$4.61 mode 6) with lower variation but still high (sd 2.03) → Divesting more responsibility from higher to lower tiers of government ($\bar{x}$3.71) → More formal communication and networking ($\bar{x}$3.8) and more variation around the answer than: → Informal communication and networking ($\bar{x}$3.2); with both low level of agreement, therefore not carried into R3. → Streamlining powers ($\bar{x}$3.34)
R3_Q9 (S4) <u>Leadership</u> for Coastal Governance could be strengthened - …statements • At the regional and local scale by Local Authorities and Coastal Partnerships with IFCAs playing an increasing role. • At the national scale through Marine Planning Authorities, but clarity and drive is needed to consider how coastal governance sits alongside other statutory agencies • At the UK scale from Ministerial and Government Departments	**93** **89** **85**	47 33 47	46 56 46	*4* *6* *6*	R2_Q13 (OPEN) **Leadership for Coastal Governance could be strengthened** - Organisations at UK/National/Regional/Local: combined bar chart *OPEN question per scale: summary description based on Excel 'string'* - UK - National - Regional - Local
R3_Q10 (S4) <u>Collaboration</u> at the Local Community/Ecosystem Scale • To support collaboration at the local community/ecosystem scale, a cross-sector convening role is needed. • This would build on existing and emerging governance structures such as Coastal, Catchment and Marine Planning Partnerships. • …new committee/board structures lower consensus	**91** **87**	51 38	40 49	*4* *2*	R2_Q14 Q4 (top 3) 14a OPEN 14b OPEN **Collaboration at the Local Community/Ecosystem Scale** CEPs nearly 30% of scores followed by AONBs, IFCA, EMS, CGs and MPPs between 5-10% **Common characteristics** text summary
R3_Q6 (S4) <u>Organisations</u> driving collaboration - Government bodies, agencies and groups with more sectoral statutory responsibilities are more limited in their capacity to drive collaboration due to it not being a core part of their remit. - Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation. - Community-driven, voluntary and non-governmental initiatives are effectively driving collaboration at the local and national level.	 **76** **76** **64**	 **26** 15 18	 61 50 46	 *16* *17* *29*	R2_Q10 **Organisations driving collaboration** - CEP, MPPs, EMS (mean rank scores given) - Little collaborative effort: developers (30%), consultants (23%), central government (16%). - Substantial collaborative effort: CEPs (40%), EMS groups (18%), community-led initiatives (17%).

8.6 Marine and Terrestrial Planning Across the Land-Sea Interface (Theme D)

Theme D considers the effectiveness of marine and terrestrial planning for the coast, collaboration between marine plan authorities and options for improvement. The results in this chapter draw primarily on the highest levels of consensus found in the R3 statements, backed up by data from R2 which included analysis by participants scale and sector and from R1 their perspective in terms of geographical scale, role in multisector initiatives and quotes to illustrate key points. The scale and connectivity between plans and leadership for coastal planning are explored, together with ideas on other routes to effective planning. Three priority actions for implementation were identified.

8.7 Effectiveness of Marine Planning for the Coast

In R1, many participants commented about the strengths and weaknesses of marine planning in comparison with the more mature and prescriptive terrestrial planning system. A lack of connectivity between marine plan authorities and LAs was identified to cause implementation capacity gaps, but opportunities for better integration between the two planning systems were suggested. There was divergence of opinion in R2, on whether the marine planning system is considered effective for the coast (R2 Q15, $\bar{x}$=3.4) with only a small proportion saying don't know' (*n=16,* 14%).

Consensus

R3 proposed a bold statement to push for a consensus view. A statement was offered that "the marine planning system is *not* very effective across the land-sea interface for the coast *at the current time"*. The results indicated 76% consensus (*n*=68) with 14% (*n=12*) participants disagreeing and 10% (*n=9*) who didn't know. There was no further discussion about this statement at the workshop. However, the following sections report findings to address this outcome.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
		DS	D	A	AS	DK	n =	%
Effectiveness of Marine Planning for the Coast								
11	The marine planning system is not very effective across the land-sea interface for the coast at the current time.	1 1%	11 13%	43 48%	25 28%	9 10%	68	76%

8.8   Collaboration between Marine and Terrestrial Planning Authorities

The UK Marine Acts contain a requirement to 'secure compatibility' between plans due to the overlap between the marine and terrestrial planning systems[129]. The R2 (Q15) result indicated a fairly split response ($\bar{x}$=3.2), with 43% of participants scoring 2 or 3 (out of 7) and four participants suggesting that the marine planning system was 'not [working] at all' in securing compatibility between plans. A large number of participants (26% *n*=30) said they didn't know.

To identify options to improve collaboration between marine and terrestrial planning authorities, participants were asked to indicate their support for factors (identified from R1) which could improve collaboration (R2 Q17), in particular how weaknesses caused by overlaps and gaps in co-ordination effort could be addressed, as shown in Figure 8.3 below.
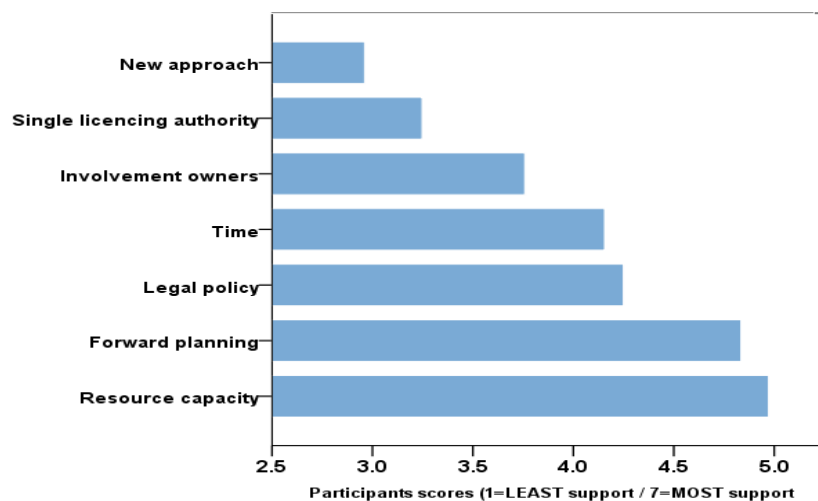
Figure 8.3 Improving collaboration between marine and terrestrial planning authorities (R2 Q17).

Analysis of the R2 results by grouping (Appendix 2E), indicated some potential variation between scale and sector responses, including a particular need to strengthen resource capacity/expertise in DA ($\bar{x}$=5, 63% *n*=72). More involvement of land, foreshore and seabed owners (e.g. TCE) was supported ($\bar{x}$=3.8) more at the regional and local level than UK or DA. Other factors were suggested

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[129] A one-page explanation of the legal duty to secure compatibility between plans was provided as a link from the R2 survey: UK Marine & Coastal Access Act (2009) Section 9 (2) (b) paragraph 3(1) and (2) with respect to securing compatibility with marine plans or Planning Act plans for areas which are related to the marine plan area); and Marine (Scotland) Act (2010) Schedule 1 3(2) [Marine Regional Plans]…must also take all reasonable steps to secure that any regional marine plan is compatible with the development plan for any area which adjoins.

including extending the remit of LAs or Parish Councils seaward[130] and closer working between central government departments.

Consensus

The results indicated 73% consensus (R3 Q12, *n*=65) around the recommendation that the overlap between the marine and terrestrial planning system to 'secure compatibility' between marine plans is *not* effectively encouraging collaboration in the coastal area at the current time, with only 11% (*n*=10) disagreement. This is a good example of how the Delphi-based process 'flushes out' consensus (or not) through iterative surveys as R3 drew out a consensus which was not evident in R2. As shown in below, the final results indicated 82% (R3 Q13, *n*=73 participants) consensus around the recommendation that resource capacity/expertise could be strengthened through the existing marine and terrestrial planning system, rather than develop a new approach for coastal planning. Only 8% (*n*=7) disagreed and 10% (*n*=9) didn't know.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Collaboration Between Planning Authorities		DS	D	A	AS	DK	n =	%
12	The overlap between the marine and terrestrial planning system to 'secure compatibility' between plans is not effectively encouraging collaboration between planning authorities and stakeholders in the coastal area at the current time.	1 1%	9 10%	42 47%	23 26%	14 16%	65	73%
13	Strengthen resource capacity/expertise through the existing marine and terrestrial planning system, rather than develop a new approach for coastal planning.	1 1%	6 7%	39 44%	34 38%	9 10%	73	82%

Workshop: Priority Action

To strengthen the existing planning system there needs to be more education of terrestrial and marine planners in the 'opposite' environment, in particular with best practice from terrestrial planners shared. It was suggested that a (decision-making) system like there is for NSIPs may be appropriate to encourage collaboration/a joint system between plans. More resources given to organisations for assessing coastal/transboundary and cumulative effects would be helpful. The need for more of an ecosystem approach to planning for the coast, which would include process thinking rather than spatial approaches, was recognised. Mismatch between the scale and timing of

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[130] Examples included: *"More buy-in by local authorities and possibly a statutory role beyond the tide line to the terrestrial limit (e.g. Germany)*; *"At the local level, local marine/coastal planning by Parish Councils who know their area well and more locally based enforcement with visible engagement by local officers".*

terrestrial and marine plans is not helpful. A re-look at terrestrial planning was suggested, with an enforced overlap between terrestrial and marine plans to be more integrated at a statutory level. The lack of understanding between terrestrial and marine plans could be helped by local partnerships (CEPs) which understand local issues. A single planning authority could extend (e.g. to 12nm offshore) with resources at the local level for accountability; providing a simplified system with better understanding of local issues through the bottom-up approach.

Priority Action

D1   Create a simplified local authority planning team with a process approach and resources and education to make holistic decisions.

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

➔ 61% consensus: 28% of workshop participants strongly agreed and 33% agreed whilst 22% disagreed and 17% said 'don't know'.

Overall, this action received 3% of the final votes and was ranked 11th out of the 14 top actions. The full range of scores is shown in the summary of action statements (Section 9.9).

8.9   Scale and Connectivity between Marine and Terrestrial Plans

Participants reported a weakness in connectivity between marine and terrestrial planning (R1 Q6, see Appendix 1F, R1 report, p.9). Beyond the legal duty to 'seek compatibility' between plans, participants were asked which measures (identified from R1), would be helpful to ensure representation of coastal stakeholders and communities in the planning process (R2 Q18). Participants gave most support to *statutory* coastal plans nested within marine and terrestrial plans (n=30 28% $\bar{x}$=5) and more investment in collaborative effort (n=27 25% $\bar{x}$=4.9). A high number of participants (n=27 24% $\bar{x}$=3.2) did not think *voluntary* coastal plans nested within marine and terrestrial plans would be helpful, which is interesting considering that is the current practice provided in many locations through coastal partnerships. This suggests that the existing voluntary plans are un-recognised/lacking recognition and need to evolve into statutory plans.

Table 8.3 Measures to support connectivity between marine and terrestrial plans (R2, Q18)

Measure	Mean score 1=lowest 7 = highest
Statutory coastal plans nested within marine and terrestrial plans	4.95
More investment in collaborative effort	4.87
Strengthen marine planning at the local scale	4.74
Strengthen terrestrial planning at the regional scale	3.64
Design a new planning approach focused on the coast	3.47
More specific regulation for coastal interests and activities	3.33
Voluntary coastal plans nested within marine and terrestrial plans	3.17

Strengthening marine planning at the local scale *($\bar{x}$=4.7)* may be a feasible way of achieving this as it was more supported than strengthening terrestrial planning at the regional scale ($\bar{x}$=3.6). There was limited support for designing a new planning approach focused on the coast (*n*=35 32% $\bar{x}$=3.5). In participants' feedback, the need to allow time for the existing approach to mature before introducing new measures was emphasised, particularly as there is little evidence to show whether current approaches are working for either marine or terrestrial planning.

Consensus

There was 81% (*n*=72 participants) agreement that statutory coastal plans nested within marine and terrestrial plans would be welcomed and could build upon existing voluntary plans. Only 7% (*n*=6) expressed disagreement and 12% (*n*=11) said 'don't know'.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
	Scale and Connectivity Between Marine and Terrestrial Plans	DS	D	A	AS	DK	n =	%
14	Statutory coastal plans nested within marine and terrestrial plans would be welcomed and could build upon existing voluntary coastal plans.	2 2%	4 5%	46 52%	26 29%	11 12%	72	81%

Statutory coastal plans would require one or more of the following: a legal driver (from the top); coastal policy within marine plans; developing the coastal concordat (make it statutory); local and educated authorities who can implement the policy (e.g. catchment partnerships). The aim would be to establish bottom-up engagement which informs joint spatial planning, providing the resources and education to feed into consultations. The MMO, EA and LAs would be key implementers.

Priority Action

D2   Co-located Coastal Partnerships and community partnerships which with government depts. could consult to feed into consultations.

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

➔ **67% consensus**: 17% of workshop participants strongly agreed and 50% agreed whilst 6% (*n*=1 participant) disagreed and quite a few participants (28%, *n*=5) said 'don't know'.

Overall, this action received 4% of the final votes and was ranked 12[th]= out of the 14 top actions. The full range of scores is shown in Section 9.9.

8.10   Leadership for Coastal Planning

The need for stronger leadership was indicated in the vision for better governance (R1 Q11 – see Appendix 1F (p.39). Most support was given to stronger direction for coastal planning (R2 Q19) coming from the national ($\overline{x}$=2.74/4) or regional/sub-regional level/county level ($\overline{x}$=2.69). Least support was expressed for stronger direction from the UK level (51%, *n*=55 $\overline{x}$=1.97) therefore indicating a clear role for DAs and the value of regional/local leadership.

Of 112 responses to this question, 31 participants chose to give further explanation for their response. Many participants re-affirmed the need for stronger direction being a combination of top-down and bottom-up approaches (see Theme A) including a suggestion that a national federal structure incorporating regional and sub-regional/local needs would be welcomed. Suggestions for stronger top-down leadership included legal mechanisms (e.g. nationally through the National Planning Policy Framework and strategic guidance for NI). Getting a UK-wide coastal planning policy would be hard due to the Devolution Act, however the DAs could enable regional/county or local commitment on the basis that UK direction can filter down to the local level. Overall, the UK level is seen as too far removed from coastal communities and there is too much difference between areas

for a UK-wide approach. National level leadership is mainly seen as an enabler and generator of political will and support.

The high level of interest in more regional leadership was further expressed as 'nested' plans and this being most effective from an implementation point of view, especially across the coastal boundary. There is a need to consider how well marine plans are working amid the fast changing arrangements of coastal groupings at the sub-regional level. The need for local community support was clear. The definition of scale was raised by a few participants on the basis that a local community may not align well with an ecosystem which is not necessarily local, but that geomorphological cells/discrete ecosystems are preferred over political boundaries.

Consensus

National and regional leadership is sought through improving coastal policy, to provide stronger direction and enable support and political will for implementation at the local level (R2 Q15, 87% *n*=77).

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
	Leadership for Coastal Planning	DS	D	A	AS	DK	n =	%
15	National and regional leadership is sought through improving coastal policy, to provide stronger direction and enabling support and political will for implementation at the local level.	0	4 5%	45 51%	32 36%	8 9%	77	87%

Participants discussed other ways to promote more effective planning for the coast (R2 Q20) which would include plans and planning at the local level needing to create more engagement, education and awareness between national and local community levels, to help provide clarity over roles and responsibilities. More communication and collaboration opportunities would be helpful but must be well resourced and it may be better to build on existing communication mechanisms than establish a new 'body' due to the already complex range of organisations. Staff need greater training and understanding, particularly local authority staff in marine planning and it would be helpful if MMO staff engaged more locally. There needs to be recognition that the coast is different to marine or terrestrial for which specific knowledge and experience is needed. This may enable better long-term planning and vision. A few participants recommended the establishment of national coastal policy which could lead to coastal plans at the appropriate local scale and/or coastal chapters in marine and terrestrial plans. Further research was recommended.

Basic principles need to be established by legislation, combined with bottom-up education of the public (e.g. the recent marine plastics campaign). Central government still needs more political will to drive sustainability. To support bottom-up direction, IFCAs and CEPs could co-locate. To support top-down direction, outline policies could be defined for the coastal zone, to include implementation at the local level i.e. planning control at the local level with statutory responsibilities. This could be achieved through establishing legislation to enable a single planning authority (out to 12nm) as referred to above in Section 8.8. IFCAs were identified as the body to bring LAs and others together (with terrestrial planning), supported by Defra and the MMO.

Priority Action

The agreed statement put forward by the table group for engagement in decision-making was:

D3   Legislation should be driven by bottom-up needs which would influence how local planning authority (simplified team) makes planning decisions.

Through e-voting in the plenary session, the level of agreement by all workshop participants was similar to D2:

➔ **67% consensus:** 17% of workshop participants strongly agreed and 50% agreed whilst 6% (*n*=1 participant) disagreed and quite a few participants (28%, *n*=5) said 'don't know'.

Overall, this action received 4% of the final votes and was ranked 12th= out of the 14 top actions. The full range of scores, are shown in Section 9.9. It is notable that the implementation action statements for Topic D on marine planning received overall the lowest priority and no participants ranked these three actions (D1, D2 & D3) with the highest priority for implementation.

Response stability

For all Theme D questions there was good consistency in question wording between R2 and R3. On the first two questions about the effectiveness of marine planning (R2 Q5, R3 Q11) and collaboration between marine planning authorities to secure compatibility (R2 Q16, R3 Q12), the R3 survey drew out more consensus than found in R2. Across the other three questions the surveys drew out strong areas of consensus which had been evident in R2.

8.11   Theme D: Summary of Results

Highest consensus was shown around strengthening national and regional leadership for coastal planning through improving coastal policy, to provide stronger direction and enable support and political will for implementation at the local level. There was also high consensus around strengthening resource capacity/expertise through the existing marine and terrestrial planning system, rather than developing a new approach for coastal planning. This should involve more forward planning, more legal and policy incentives, more involvement of land, foreshore and seabed owners (e.g. Crown Estate) and give time for marine planning to mature. Consensus was presented for statutory coastal plans nested within marine plans to address the difference in scale and connectivity between marine and terrestrial plans, which would be welcomed and could build upon existing voluntary coastal plans. This should be combined with more investment in collaborative effort, strengthening marine planning at the local scale and terrestrial planning at the regional scale.

Implementation actions proposed by workshop participants were for a **simplified LA planning team (D1); co-located partnerships (D2); and legislation driven by bottom-up needs (D3).** An overview of the results from Theme D is shown in Table 8.4 Summary of Results for Theme D: Marine and terrestrial planning for the coast.

Table 8.4 Summary of Results for Theme D: Marine and terrestrial planning for the coast

D: MARINE AND TERRESTRIAL PLANNING for the coast	CONSENSUS (%)			DIS	
R3 Question number and verification statements with the highest consensus Note: mean values out of 4. S=Scale question. Grey text = no consensus	**A+AS**	**AS**	**A**	***DS+D***	**R2 Question number and summary of results** Note: mean values out of 7 apart from R2_Q19 out of 4. S=Scale question. R=Rank question. O= open text response.
R3_Q11 (S4)	**Effectiveness of marine planning for the coast (1)** The marine planning system is not very effective across the land-sea interface for the coast at the current time.	**76**	**28**	48	*14*	R2_Q15 R(7)	**Effectiveness of marine planning for the coast (1)** ➔ Moderately (x3.4/7) with 30% (*n*=34) participants ranking score 3 and 20% (*n*=23) a score of 2 or 4. ➔ Response rate 85% (*n*=98) with 14% (*n*=16) 'Don't' Know
R3_Q12 (S4)	**Collaboration between Marine Planning Authorities (MPAs) (1)** The overlap between the marine and terrestrial planning system to 'secure compatibility' between plans is not effectively encouraging collaboration between planning authorities and stakeholders in the coastal area at the current time.	**73**	26	47	*11*	R2_Q16 R(7)	**Collaboration between (Marine) Planning Authorities and stakeholders ('secure compatibility') (1)** • Moderate/weak (x3.2) with 43% participants scoring 2 or 3. • Response rate 74% (*n*=85) with 26% (*n*=30) 'Don't' Know
R3_Q13 (S4)	**Options to improve collaboration between MPAs (1)** Strengthen resource capacity/expertise through the existing marine and terrestrial planning system, rather than develop a new approach for coastal planning.	**82**	38	44	*8*	R2_Q17 R(7) R2_Q17a Open	**Improving collaboration between marine and terrestrial planning authorities (8)** *%='most' important value 7* • More resource capacity/expertise (x5, 63% *n*=72) • Stronger forward planning objectives (x4.8) • More legal/policy incentives (x4.3) • Time for marine planning to mature (x4.2) • More involvement of land, foreshore and seabed owners (e.g. Crown Estate) (x3.8) • New approach *not* needed (x2.9, 48% *n*=50) • Single licencing authority for the coastal zone (x3.3 35% *n*=38)
R3_Q14 (S4)	**Scale and connectivity between marine and terrestrial plans (1)** Statutory coastal plans nested within marine and terrestrial plans would be welcomed and could build upon existing voluntary coastal plans.	**81**	29	52	*7*	R2_Q18 R(7) R2_Q18a Open	**Scale and connectivity between marine and terrestrial plans – representation of coastal stakeholders and communities in planning processes (7)** *%='most helpful'* • Statutory coastal plans nested within marine and terrestrial plans (x5, 28% *n*=30) • More investment in collaborative effort (x4.9, 25% *n*=27) • Strengthen marine planning at the local scale (x4.7) • Strengthen terrestrial planning at the regional scale (x3.6) • Design a new planning approach focused on the coast (x=3.5, 32% *n*=35) • More specific regulation for coastal interests and activities (x3.3) • Voluntary coastal plans nested within marine and terrestrial plans (x3.2 24% *n*=27).
R3_Q15 (S4)	**Leadership for coastal planning (1)** National and regional leadership is sought through improving coastal policy, to provide stronger direction and enabling support and political will for implementation at the local level.	**87**	36	51	*5*	R2_Q19 R(4) R2_Q19a Open R2_Q20 Open	**Leadership for coastal planning – stronger direction from: (4)** • National (Scotland, Wales, NI and England) (x2.74) with 'most support' (35% *n*=38) • Regional or sub-regional/county (x2.69) with 'most support' (31% *n*=34) • Local community/ecosystem (x2.19) • UK (x1.97) with 'least support' (51% *n*=55) **Other routes to effective planning (O)** • Bridge more engagement, education and awareness between national and local levels to clarify roles and responsibilities • More communication opportunities, well resourced, build on existing mechanisms • LA staff raining in marine planning and MMO local engagement.

8.12   RESULTS PART TWO:

Organisations, the institutional framework and planning: leadership for the coast

The findings from Theme A and B on the approach to governance and collaboration were explored in practical terms through Themes C and D on the current institutional framework and planning. Participants highlighted the complexities of current governance, with overlaps and gaps between organisations roles and responsibilities requiring better clarification and awareness. Three-quarters of participants considered that collaboration is actively embedded in what they do but many, particularly in statutory organisations, lack the staff capacity to drive it due to it not being a core part of their remit. Partnership approaches are considered the most effective way of overcoming this, rather than creating new structures for coastal governance. Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation, especially CEPs but also MPPs in Scotland, EMS groups, IFCAs and coastal groups at the local and regional scale in England. At the national scale, the marine plan authorities should lead, particularly across DA boundaries.

However, the organisations most driving collaboration could deliver better given more capacity and/or a firmer remit. The quality of collaborative effort needs to involve the right skills – networking, facilitation, leadership and fairness. The recommendation for a national strategy for the coast (B1) could help drive this through a longer-term approach, relying less on short-term projects and be 'fed' through a requirement for regular local monitoring and engagement, championing local effort (C2). This could in turn support the necessary staff capacity and continuity of collaborative effort to link services and co-ordinate management responsibilities (supporting statutory remits), which obtained higher consensus than creating a single overview role at the national or local level.

Regarding planning for the coast, there is a very clear need to address the mismatch between marine and terrestrial planning in terms of scale, with a preference to strengthening the two existing spatial systems, rather than developing a new approach for coastal planning. However, there was high consensus around the need for statutory coastal plans nested within existing marine plans. A simplified LA planning team (D1) could provide a way forward and/or co-locate coastal/estuary/marine and catchment partnerships (D2). These governance structures were considered to provide the necessary cross-sector convening role but targets to help drive the collaborative effort could be explored further. The public sector should continue to lead, with legislation more driven by bottom-up needs (D3) combined with stronger leadership from ministerial and government departments (e.g. a minister for the coast). National and regional leadership for

coastal planning could be strengthened through improving coastal policy (e.g. a national coastal strategy), to provide stronger direction and enable support and political will for implementation at the local level.

9   RESULTS PART THREE: STEWARDSHIP AND VISION

9.1   Overview: Results Part Three (Theme E)

A central theme of the research is to explore how collaborative governance mechanism(s) could improve stewardship of the coast. From participants initial perspectives from R1 on the extent, concept/meaning, drivers/mechanisms and barriers to stewardship, further questions in R2 and R3 gained their views on how to promote stewardship through incentives for societal/behavioural change and place-based governance. Theme E resulted in five priority actions for implementation from the workshop.

9.1.1   Extent and Meaning of Coastal Stewardship

Survey participants were given a definition of coastal stewardship in the *Participant Information Sheet* and asked (R1 Q10): *To what extent is stewardship embedded in what you do?*

Coastal Stewardship

The *outcome* of governance processes which improve the management of coastal resources and the health of the coastal ecosystem for future generations.

The response showed that one-third of participants (37% *n*=54) considered stewardship to be 'significantly embedded' in what they do, with another third considering it to be moderately embedded in what they do. Compared to collaboration (72% *n*=106 'significantly embedded'), participants feel less involved in stewardship activity. The incentive towards a stewardship approach (R1 Q10a, 43%) made only a few references to the coastal ecosystem *in itself* (5%), with other approaches to governance (44%) associated with its stewardship (e.g. evidence, institutions, legal and policy framework, coastal change, taking a long term approach, a commons approach and generating a sense of ownership). Custodianship and the role of a steward, guardian, local champion or leader were referred to and used more frequently than participation, stakeholder engagement, partnership working, collaboration or collective action. The incentive towards stewardship was referred to by the majority of participants in terms of benefits for the greater good, or sustainable use and a responsibility or duty to others. Many participants referred to natural capital, common goods, shared assets or resources implying a need to maintain the status quo and not allow deterioration. Others suggested that stewardship implied protecting, conserving, enhancing or recovering the environment to leave it in a better state for future generations. Overall, there was a fairly common understanding of the purpose and benefits of stewardship but limited views on *how*

to go about it beyond existing conservation-related activity. Further background is provided in Appendix 1F (R1 Report, p17-18).

9.1.2 Drivers/Mechanisms and Barriers to Stewardship

The approach to governance (R1 Q10b, *n*=820 references) was considered a key driver for stewardship (47%), in particular through the need for shared understanding, clarity/transparency and trust in decision-making. There was strong recognition of the role that bottom-up initiatives provide to drive stewardship and develop a sense of ownership over local resources. Stakeholder or public engagement/awareness, participatory or partnership approaches and collaborative/joint working are all seen as important approaches to governance which foster coastal stewardship. The value of a leader or local champion and taking a long term approach was highlighted. Incentives towards stewardship (16%) include having an aim, vision, common objective or shared value followed by caring for or valuing the coast, by interacting with it or being part of a coastal community. However, the existence of a conflict, threat, problem issue or peer pressure can also drive stewardship. Other participants cited sustainability and a sense of responsibility or mutual respect, political will/government support as key drivers.

The legal and policy framework was considered the third major driver for stewardship (10%). Legislative characteristics needed to drive stewardship included a strong and clear framework, local codes or byelaws with strong backing. The necessity for legal backing was identified, particularly when resources for voluntary approaches maybe vulnerable. EC Directives, particularly those supporting site designation and planning were helpful to agree aims and achieve a long term perspective. Other factors included the role of institutions particularly NGOs in stimulating stewardship through engagement projects, stewardship schemes, generating local ownership and their increasing role as a custodian in some cases. Evidence, data, information and knowledge were recognised as a key driver with education, training and capacity building being particularly important. Financial resources are often necessary to drive stewardship action.

The approach to governance (R1 Q10c, *n*=300 references) was also identified as a key barrier to stewardship (29%) - particularly the degree of understanding of the natural environment, the services it provides and how people's actions affect it. Poor links between people and their coastal environment and the need for more education/awareness and 'ocean literacy' were cited. Barriers around participatory/stakeholder engagement, public awareness, joint working and the lack of a bottom-up approach was more pronounced in scenarios around major development projects where community consultation has been inadequate. Other approaches to governance which present a

barrier to coastal stewardship include the siloed approach/lack of integration, lack of clarity/complexity and short-term approaches.

Resources (17%) were also identified as a key barrier due to the lack of long term stable funding mechanisms for engagement/awareness work, evidence/data collection and support for institutions co-ordination efforts. There is a strong link between resources and political will with reference to incentive (16%) followed by observations around inertia, disillusionment, increased competition for resources and cases of entrenched conflict. The need for sustainable use and benefits offered by the coastal environment are not well enough recognised to facilitate a long term approach. The focus on Brexit at the time of the research was cited as the strongest legal characteristic presenting a barrier to stewardship as it takes attention away from local action and investment, with potential negative consequences for the legislative framework in future. The UK's fragmented and complex institutional framework, combined with frustrations around the reduced support from central to local government and the advisory bodies are key barriers. Further background is provided in Appendix 1F (R1 Report, p18-19).

9.2   Vision for Better Governance

Ten themes were identified from participants response to a vision for better governance (R1 Q11, *n*=400 references), as shown in Figure 9.1 below. Further background is provided in Appendix 1F (R1 Report, p20).
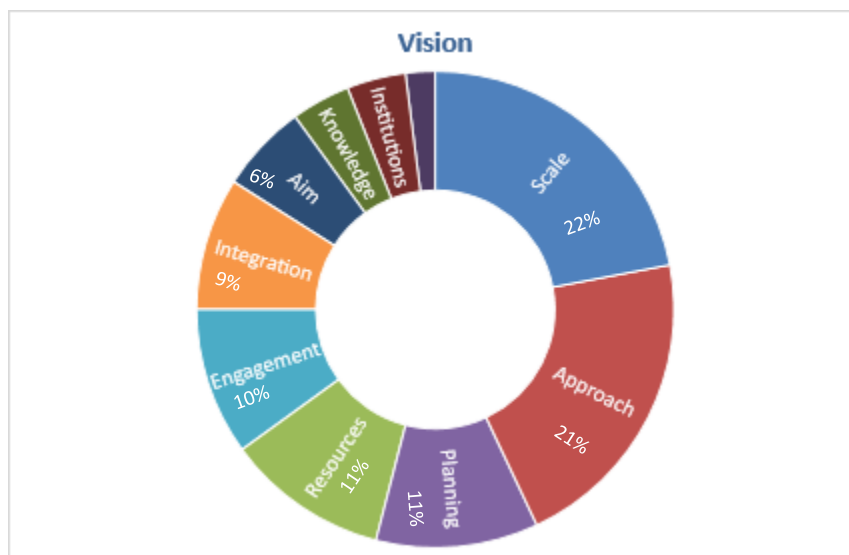
Figure 9.1 Factors associated with a vision for better governance of the coast.

Many participants commented on the scale of (42% *n*=71) and approach to governance (21%) with approximately half of these supporting local community engagement or bottom-up drivers. Statutory agencies would be better integrated and stakeholder-led governance structures well supported by them, with a clear overarching legal and policy framework that encourages connectivity between terrestrial and marine management. They suggested vision was needed for how the coast can be managed as a whole, which would involve clearer lines of communication, better knowledge of responsibilities, stronger leadership, engagement and awareness amongst coastal communities. A more democratic, transparent approach would further collaboration/partnership working. The possibility for enhancing an ecosystem approach through more place-based governance structures was considered worthy of further exploration. A long term approach would be embedded in planning and delivery, targeted at a scale that properly integrates land and sea. Adequate and sustainable financing was a key part of the vision, alongside efficient and competent bodies which are well co-ordinated and reflect the widely understood value of the coastal ecosystem. Ensuring good governance was recognised as key for health and well-being, with adaptive approaches providing resilience due to increased pressures from blue growth and climate change. Planning needs to address the mismatch in scale between regional marine plans and local authority plans; promoting a better vision of the coastal ecosystem.

9.3 Promoting Coastal Stewardship

Based on R1 feedback that coastal stewardship could be improved through stronger and clearer frameworks (reducing duplication, simplifying the complex institutional framework and giving stronger backing to local codes and byelaws), participants were asked: *To what extent does implementation of the following mechanisms promote stewardship of coastal resources at the current time? (R2 Q21).* A shortlist was provided, based on responses to the R1 survey and a review of legislation most relevant for coastal management.
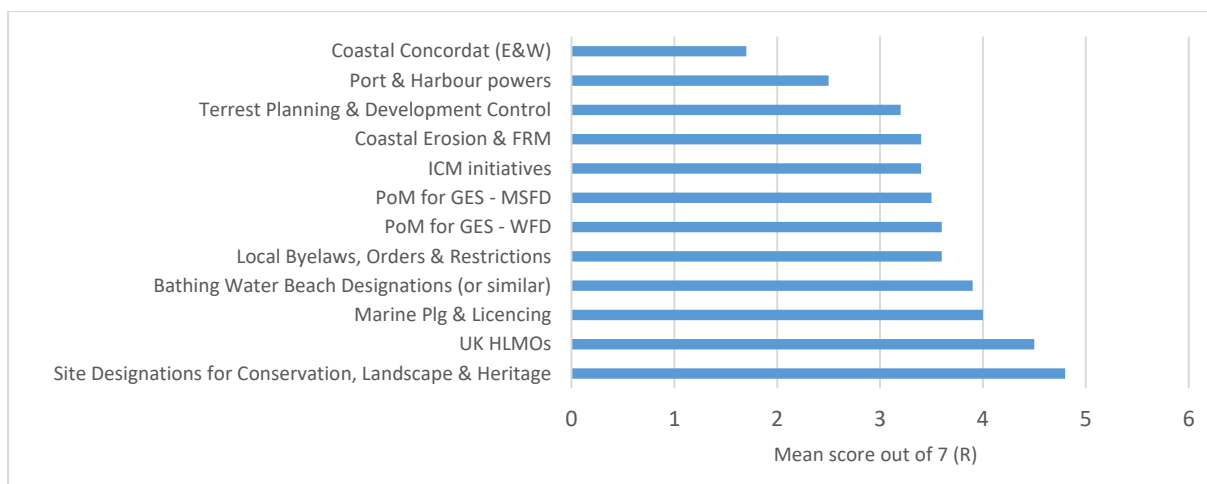
Figure 9.2 Mechanisms to promote coastal stewardship (R2 Q21).

As shown in Figure 9.2, site designations for conservation, landscape and heritage were considered the most helpful mechanism for promoting stewardship with 52% of participants (*n*=59) giving this a score of 6 or 7 and the highest mean score. The UK High Level Marine Objectives were considered important but quite a high number of participants (18% *n*=20) didn't know enough about them to give a score. Marine planning and licencing and bathing water beach designations were considered to be quite strong at enabling stewardship. Port/harbour powers and the Coastal Concordat for England & Wales were ranked lower, partly because 45% (*n*=48) participants didn't know enough about them. Short explanation for the above responses was provided by 25 participants who highlighted the large range of mechanisms being used, but suggested that they did not necessarily lead to behaviour change. The MSFD was cited in particular as an example of meeting regulatory targets without adding additional burden or affecting significant change. Initiatives such as EMS officers to support site management and ICZM partnerships had limited capacity due to reduced levels of funding and lack of political backing. Marine planning was considered too focused on win-win's and relying on consultations and mitigation rather than a precautionary approach. Fisheries byelaws were cited as quite effective but their lack of linkage with marine planning was an issue. The Coastal Concordat is seen as simplification of an application process, not a tool towards stewardship and its application in Wales was queried by two participants. There was a general feeling that more would be needed to promote genuine stewardship beyond the existing regulatory activities.

Participants were asked (R2 Q21b.): *Do you have any other ideas for legal, policy, non-governmental or social incentives which would enable better coastal stewardship?* Participants answers (*n*=38) were grouped into five categories as shown in Table 9.1 below (see Appendix 2E, R2 Report, p.35).

Table 9.1 Participants' ideas for enabling better coastal stewardship (R2 Q21b.)

Societal/behavioural change	Resourcing/capacity building	Top-down/national level / regulatory	Bringing together	Bottom-up
Promote sense of public/collective ownership	LEP sponsored staff post	Environment Act post Brexit	Statutory duty on LA to deliver ICZM	Improve knowledge and skills
Employ local stewards offering safe spaces for discussion	Levy	National Policy. Long term policy incentives Statutory ICZM plans for coastal areas.	Quality Awards	
Network of stewards	Secure finance	Marine Park Authority	Join up catchment and coastal coordination	
Prioritise ecosystem services to balance decisions (through terrestrial planning & CaBA)	Coastal land management recognised in its own right.	Resolve inter-departmental differences/silo mentality	Empower Local Authorities to take holistic decisions and avoid project funding	
Custodians of natural assets	Lever more support from the Coastal Communities Fund and Heritage Lottery Fund	Marine managers to get more involved in local communities	Research, knowledge & info co-ordination	Local communities trust marine managers to make right decisions
Natural capital approach	Invest in communication	Statutory duty towards net environmental/natural capital gain/public benefit	Marine Planning Partnerships and Inshore Fisheries	
Education inc curriculum & TV campaigns, training, apprenticeships.		Review and streamline legislative frameworks (e.g. integrate WFD & MSFD)	Joint marine terrestrial plans	
		Fisheries management 'wake-up' – need MSFD or equivalent as little protection through EIA outside MPAs.		

Consensus

Based on the above results and analysis, the statements proposed for verification in R3 (Q16) resulted in consensus that regulatory approaches promote stewardship to some extent, but would be strengthened through a review of the regulatory framework. The strongest agreement (90% *n*=73 participants) was for a national coastal policy and the proposal for statutory coastal plans was again supported (75% *n*=65 participants) with only 7% (*n*=6) disagreeing and 18% *n*=16) saying 'don't know' which showed good response stability in relation to planning (Section 8.7). There was also agreement about a statutory duty towards net environmental/natural capital gain for public benefit (77% *n*=66 participants). The streamlining of existing legislation was marginally agreed which was consistent with earlier findings.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Promoting Coastal Stewardship		DS	D	A	AS	DK	n =	%
16.1	Regulatory approaches promote stewardship to some extent, but would be strengthened through a review of the regulatory framework – including:	0	1 1%	57 70%	16 20%	7 9%	**73**	**90%**
16.2	National coastal policy;	0	5 6%	50 57%	23 26%	10 11%	**73**	**90%**
16.3	Statutory coastal plans;	1 1%	5 6%	46 53%	19 22%	16 18%	**65**	**75%**
16.4	Statutory duty towards net environmental/natural capital gain for public benefit;	2 2%	3 3%	37 43%	29 34%	15 17%	**66**	**77%**
16.5	Streamlining existing legislation;	1 1%	6 7%	46 53%	16 18%	18 21%	**62**	**71%**
16.6	Stronger fisheries management.	0	5 6%	26 30%	24 28%	31 36%	**50**	**58%**

Workshop: Priority Actions

It was proposed that a vision-making process is needed, building on the 25 year Environment Plan to create a national plan with local policies and statutory duties (e.g. AONB) to resource, plan and deliver. Incentives and education are needed and we need to move away from an approach based on trust vs. fear (traditional power/rules-led).

Two statements were put forward from this topic to the plenary session.

E1 **The sea is a public open space, managed using the 'triple-bottom-line' (society, economy, environment).**

➔ **95% consensus:** 78% of workshop participants strongly agreed and 17% agreed whilst nobody disagreed and only 6% (*n*=1) said 'don't know'.

Overall, this action received 15% of the final votes and was ranked 1st out of the 14 top actions.

E2 **We need a vision. Austerity is not a vision. A common cross-sectoral vision is needed.**

➔ **100% consensus:** 65% of workshop participants strongly agreed and 35% agreed whilst nobody disagreed or said 'don't know'.

Overall, this action received 5% of the final scores and was ranked 7th= out of the 14 top actions. It is notable how this was one of four final statements/actions which obtained full consensus with no participant disagreeing or saying they didn't know. The full range of scores is shown in Table 9.3.

9.4 Bringing Together and Co-ordinating Efforts and Initiatives

Based on the Theme A results (See Section 7.4.1) which indicated clear need to bring together top-down and bottom-up approaches, participants were asked 'how' this could improve coastal stewardship.

Consensus

There was most support for joining up catchment and coastal co-ordination (95% *n*=82) to which only 1 participant disagreed. Strong support was also given to joining up marine-terrestrial or coastal plans (86% *n*=75) and empowering LAs (80% *n*=70) but a few participants (*n*=6) disagreed with this. There was consensus around the suggestion that marine planning could be linked with inshore fisheries management (77% *n*=66) but with some disagreement (10% *n*=9).

	Improving coastal stewardship would also involve bringing together and coordinating efforts/initiatives such as:	DS	D	A	AS	DK	n = /89	% of participants
17.1	Joint marine-terrestrial or coastal plans;	0	6	49	26	6	75	86%
			7%	56%	30%	7%		
17.2	Linking marine planning with inshore fisheries management;	1	8	38	28	11	66	77%
		1%	9%	44%	33%	13%		
17.3	Joining-up catchment and coastal co-ordination;	0	1	52	30	4	82	95%
			1%	60%	35%	5%		
17.4	Empowering local authorities.	2	4	48	22	11	70	80%
		2%	5%	55%	25%	13%		

Workshop: Priority Actions

Visionary or decision-making processes which involve good coordination were highlighted[131]. The differing roles of a regulator with powers, duties and responsibilities, compared to those with advisory/campaigning roles and no responsibility were highlighted. The stewardship duties of a private limited company are less obvious than a community interest organisation with a regulator providing strong (external) scrutiny, but statutory functions can lever stewardship incentive[132].

Scale and local context was considered to be extremely important, so it was suggested that officials need fuzzy institutional boundaries in their remits to empower them towards an ecosystem approach or 'process outcomes'. The flexibility of regulators regarding staff direction (e.g. between the MoD, IFCAs and LAs) was considered helpful to maintain and deepen expertise. The agreed statement put for bringing together and co-ordinating initiatives to improve stewardship was:

E3   Officials need fuzzy institutional boundaries in their remits.

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

➔ **78% consensus:** 61% of workshop participants strongly agreed and 17% agreed, whilst 22% disagreed and none said 'don't know'.

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[131] Examples included Dartmoor National Park, South Devon Catchment Partnership and South Hams Estuaries Initiative collaborating towards a Charter for the whole of the River Dart.
[132] Welsh Water was offered as an example where regulatory oversight can lever stewardship action (through the role of OFWAT).

Overall, this action received 2.6% of the final votes and was ranked 12[th]= out of the 14 top actions. The full range of scores is shown in Section 9.9.

This is an interesting recommendation considering one of the main existing mechanisms which participants considered to promote stewardship were site designations, which have clear boundaries. It implies stewardship requires more systemic, process-oriented change to make a difference in future.

9.5   Societal/Behavioural Change to Incentivise Stewardship

Based on the need for societal/behavioural change identified from R2 Q12 and participants' ideas (see Table 9.1 above), R3 considered 'how' for the purposes of coastal stewardship.

Consensus

Building knowledge, skills and education (98% *n*=86) and focusing on mechanisms which will build trust in local communities (93% *n*=82) were most supported. There was also consensus (84% *n*=74) around securing longer-term finance and investment in communication rather than a project-based approach. Seeking to employ (a network of) local stewards promoting a sense of public/collective ownership was supported by 69% (*n*=61) with 12% (*n*=11) disagreeing and quite a high proportion 18% (*n*=16) of participants (relative to other statements) saying 'don't know'.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Addressing the need for societal/behavioural change to incentivise stewardship of coastal resources by:		DS	D	A	AS	DK	n = /89	% of participants
18.1	Focusing on mechanisms which will build trust in local communities;	0	2	47	35	4	**82**	**93%**
			2%	53%	40%	5%		
18.2	Seeking to employ (a network of) local stewards promoting a sense of public/collective ownership;	1	10	36	25	16	**61**	**69%**
		1%	11%	41%	28%	18%		
18.3	Securing longer-term finance and investment in communication rather than a project-based approach;	0	5	28	46	9	**74**	**84%**
			6%	32%	52%	10%		
18.4	Building knowledge, skills and education.	0	0	36	50	2	**86**	**98%**
				41%	57%	2%		

Workshop: Priority Action

The issue of building trust was discussed and it was noted that the best stakeholder engagement processes involve the broadest engagement, such as the Marine Conservation Zone (MCZ) projects which involved industry. It is important to ask who is not in the room and represent their interests.

For building knowledge, skills and education it was suggested that the process starts with society not the environment.

Two statements were put forward from this topic to the plenary session.

E4   Move towards a trust not fear approach to stakeholder engagement

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

➔ **84% consensus:** 56% of workshop participants strongly agreed and 28% agreed whilst 6% (*n*=1) disagreed and 11% (*n*=2) participants didn't know.

Overall, this action received 5.2% of the final votes and was ranked 7th= out of the 14 top actions.

E5   In all decision-making, ask 'who is not in the room'?

Through e-voting in the plenary session, the level of agreement by all workshop participants was:

➔ **89% consensus:** 67% of workshop participants strongly agreed and 22% agreed whilst nobody disagreed and 11% (*n*=2) said 'don't know'.

Overall, this action received 5.9% of the final scores and was ranked 6th out of the 14 top actions. The full range of scores is shown in Table 9.3 Implementation action statements: consensus and position.

9.6   Place-Based Governance: Connecting Scale and Stewardship

Participants were provided with a definition of a place-based approach[133] which had been provided alongside a definition of stewardship in R1 (Section 9.1.1) and asked: *To what extent do you agree with the following statement?* (R2 Q22) *"Governance at a scale which links natural coastal processes with people's sense of place will lead to stewardship of a coastal ecosystem"*

In response to this statement, 85% (*n*=95) participants agreed, with 27% (*n*=31) in strong agreement. Only 5% (*n*=6) disagreed and 11% (*n*=13) neither agreed nor disagreed. Additional suggestions were offered (*n*=33), emphasising the value in generating a sense of ownership and legacy value "*this is really key to engagement and enforcement*"; "*coastal governance only really works if its designed to be specific to the area of coast in which it operates*". The use of recognised administrative boundaries around ecosystems as a primary governance area was expressed as an aspiration (particularly in cross-border areas). However there were caveats and challenges: not all people will engage with the scale required to link natural coastal processes with sense of place when an

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[133] For the purposes of this research, a place-based approach to governance is defined as bottom-up and focused on meeting the needs of a local community and ecosystem to support sustainable livelihoods.

ecosystem maybe much larger than a coastal community. However it isn't just about scale, stewardship is likely to demand more than new governance. It would be challenging to avoid tiers of governance, although some of the most effective governance appears to be where there is less regulation and more local control – people can gravitate to protecting what is local, but this can be a barrier to change. Unfortunately one participant suggested that the current approach to marine planning is the antithesis of a place-based approach to promote local stewardship.

Consensus

The statement was adjusted for verification in R3 and obtained 94% (*n*=84) consensus:

'Governance at a scale which links people's sense of place with the coastal ecosystem will improve stewardship action'.

The higher level of consensus could have been due to the subtle change in wording, and/or the change in participants' perspective through the iterative survey process, or losing participants who disagreed: 26 dropped out between R2 and R3. However the increase in consensus level went from 27% (*n*=31) to 56% (*n*=50) who strongly agreed, which is a third of the original participants in the whole process (*n*=168) and only one participant disagreed.

R3	Statement	Total Participants Response					Total Consensus Agree + Strongly Agree	
Place-Based Governance		DS	D	A	AS	DK	n = / 89	% of participants
19.1	Governance at a scale which links people's sense of place with the coastal ecosystem will improve stewardship action.	1	0	34	50	4	**84**	**94%**
		1%		38%	56%	5%		

Workshop

There was no priority action put forward from this discussion. The stewardship recommendations under 'Topic Area E' were overall considered the **second** (out of 4) most important priority area to improve collaborative governance for coastal stewardship.

Response stability

Assessing stability between R2 and R3 was not a primary aim of research in this theme. As illustrated in the summary of results in Table 9.2 Summary of results for Theme E: Stewardship and visionthe R2 question on existing mechanisms promoting coastal stewardship was not comparable with the R3 questions, which factored in the findings on governance with more detailed questions. These looked at potentially novel approaches to bring collaborative governance and stewardship motivations

together and most obtained good levels of consensus, as stand-alone questions. The final statement on place-based governance showed stability in consensus.

Only a third of participants at the outset considered that stewardship was significantly embedded in what they did. This reflected in a higher number of 'don't know' responses for this theme (particularly when asked about questions in relation to fisheries management).

Table 9.2 Summary of results for Theme E: Stewardship and vision

E: STEWARDSHIP and VISION	CONSENSUS (%)			DIS (%)		
R3 Question number and verification statements with the highest consensus Note: mean values out of 4. S=Scale question. Grey text = no consensus	A+AS	AS	A	DS+D (DK)[1]	**R2 Question number and summary of results** Note: mean values out of 7 apart from S=Scale question. O= open text response.	
R3_ Q16 **Promoting Coastal Stewardship** Regulatory approaches promote stewardship to some extent, but would be strengthened through a review of the regulatory framework including: - National coastal policy - Statutory duty towards net environmental/natural capital gain for public benefit - Statutory coastal plans - Streamlining existing legislation - Stronger fisheries management	73 73 66 65 62 50	20 26 34 22 18 28	70 57 43 53 53 30	1 (9) 6 (11) 5(17) 7(18) 8(21) 6(36)*	R2_Q2 1 S(7) R2_Q2 1a. (O)	**Promoting Coastal Stewardship** i. Site designations for conservation, landscape and heritage (x4.8) ii. UK HLMOs (x4.5) iii. Marine planning and licencing (x4) iv. Bathing water beach designations (or similar) (3.9) v. Local byelaws, orders and restrictions (inc fisheries) (3.6) vi. Programme of Measures for EGS – EC WFD (3.6)
R3_ Q17 **Bringing Together and Coordinating Efforts/Initiatives** Improving coastal stewardship would also involve bringing together and coordinating efforts/initiatives such as: - Joining-up catchment and coastal coordination - Joint marine-terrestrial or coastal plans - Linking marine planning with inshore fisheries management - Empowering local authorities.	 95 86 77 80	 35 30 33 25	 60 56 44 55	 1(5) 7(7) 10(13) 7(13)		vii. Programme of Measures for GES – EC MSFD (3.5) viii. ICM initiatives (3.4) ix. Coastal erosion and flood risk management (3.4) x. Terrestrial planning and development control (3.2) xi. Port and harbour authorities (2.5) xii. Coastal concordat (England & Wales) (1.7) Response rate 92-98% (n=106-113) lowest on PHP (xi) and CCON (xii); highest on DES (i) and BWB (iv)
R3_ Q18 **Addressing the Need for Societal/Behavioural Change** Addressing the need for societal/behavioural change to incentivise stewardship of coastal resources by: - Building knowledge, skills and education. - Focusing on mechanisms which will build trust in local communities - Securing longer term finance and investment in communication rather than a project-based approach. - Seeking to employ (a network of) local stewards promoting a sense of public/collective ownership.	 98 93 84 69	 57 40 52 28	 41 53 32 41	 0(2) 2(5) 6(10) 12(18)		
R3_ Q19 **Place-based Governance** *"Governance at a scale which links people's sense of place with the coastal ecosystem will lead to stewardship"* (x3.6 out of 4, sd 0.63[2]) Response rate 94% (n=84)	 94	 56	 38	 1(5)	R2_Q2 2 S(7) R2_Q2 2a (O)	**Place-based Governance** *"Governance at a scale which links natural coastal processes with people's sense of place will lead to stewardship of a coastal ecosystem"* (x5.61 out of 7, sd1.25). 85% (n=95) agreed, 27% (n=31) strongly. 5% (n=6) disagreed and 11% (n=13) neither agreed/disagreed. Response rate 99% (n=114)

DK= 'Don't Know'. Quite a high proportion of participants answered DK in Theme E relative to other themes where levels were typically around or below 10%.

[2] Mean values are not comparable between R2 and R3 because a 7-point Likert scale was used in R2 and a 4-point scale in R3.

9.7   RESULTS PART THREE: Stewardship and Vision

Only one-third of participants are significantly involved in stewardship work, but the majority (over 80%) participated in this final section of the three surveys. Their existing activity and knowledge was reflected in the R2 responses, where they identified familiar drivers, including site/status designations, the UK's HLMOs, marine planning and local legislation and to some extent EC measures of GES and ICZM initiatives. In R3, these findings were explored for their contribution to improve or incentivise coastal stewardship, alongside ideas from the literature (see Chapter 4).

Highest consensus was found around addressing the need for societal/behavioural change through building knowledge, skills and education, focusing on mechanisms that build trust in local communities and securing longer term finance and investment in communication rather than a project-based approach (R3 Q18). Adequate consensus was not found over employing a network of local stewards to promote a sense of public/collective ownership, with a relatively high proportion of participants disagreeing or not knowing how to respond (30%) although many more agreed (69%) than disagreed (12%).

Consistent with the findings from Theme A-D, the need to bring together and coordinate efforts/initiatives for coastal stewardship obtained high consensus. Specific support was given to joining up catchment and coastal coordination (95%), marine-terrestrial or coastal plans (86%) and empowering LAs (80%). A number of participants were unsure about linking marine planning with inshore fisheries management (13%) but more agreed (77%) than disagreed (10%). Also consistent with the findings from R2 to R3 was a shift from supporting the bottom-up to top-down approach slightly more. For promoting coastal stewardship there was strongest agreement towards a review of the regulatory framework through a national coastal policy (73%) above statutory coastal plans (65%) or a statutory duty towards net environmental gain (66%). This suggests stewardship (perhaps more than collaborative governance) needs to be driven from top-down. However, these consensus levels were lower than the need to drive societal/behavioural change which would be anticipated at all levels.

 Finally, there was high consensus to support *governance* at a scale that links people's sense of place with the coastal ecosystem (94%) This final statement expresses the need for the connectivity between the approach to governance, institutional framework, planning and stewardship - and the scale for delivery. It provides a platform from which to frame the findings of this research.

9.8   OVERVIEW OF FINDINGS

The results described below are shown in percentages (%) with question numbers (Q) quoted from the final R3 Verification Survey (*n*=89 participants). Where an implementation action statement was produced from the workshop (*n*=21 participants), this is shown with a reference letter (A1-E5) together with a percentage of participants and ranking (out of 14).

9.8.1   Approach to governance and collaboration (Theme A and B)

Approach to Governance across the Land-Sea Interface

There was a clear recommendation towards facilitating linkage between top-down and bottom-up approaches to governance (Q1 95%) with a slight leaning towards bottom-up support. Continued investment in bottom-up direction and decision-making is needed (Q1 83%). However there is demand for a stronger and clearer national framework (Q1 93%) and statutory approaches, supported by facilitating networks (Q3 91%). During the workshop it was recommended that these aims could be brought together through regular local monitoring and engagement, sustained by a national policy requirement (A1 (Q1) 95%). There is a need to bring people together through shared vision, underpinned by appropriate governance and sustainable finance (A2 (Q2) 100%).

Collaboration to Strengthen Coastal Governance

There is a clear recommendation to strengthen collaborative effort across the land-sea interface (Q4 100%). This includes more cross-sector and cross-boundary collaboration (Q5 98%), increasing staff capacity to help deliver this (Q5 89%) and strengthening voluntary initiatives (Q5 87%). Incentives to deliver require a long-term (as opposed to project-based) approach (98%) incentivised by political will (96%), policy (94%) and legislation (82%).

9.8.2   Organisations and the institutional framework (Theme C)

Effective collaboration is driven by the right skills (Q7) – networking, facilitation, fairness and leadership (98%); partnership approaches if combined with capacity and continuity (93%); and perhaps targets to help drive collaborative effort (77%). Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation (Q6 76%). Community-driven, voluntary initiatives are effectively driving collaboration (Q6 64%). Government bodies/agencies are limited by their sectoral duties and statutory responsibilities, with collaboration not a core part of their remit (Q6 76%). A review of the 25 Year Environment Plan to identify where investment in collaboration is valued was recommended by the workshop participants (C1 (Q6) 77%).

There is a need to improve clarity and understanding of roles and responsibilities, which could be achieved by linking services and co-ordinating responsibilities (Q8 93%) plus creating a single overview role for coastal matters at the national level (Q8 71%) and local level (Q8 66%). Leadership for coastal governance (Q9) is needed at the regional and local scale (93%), national scale (89%) and UK-wide scale (85%). A Defra review of staff capacity to provide stronger leadership, expertise and continuity of support would be helpful (C3 Q10 83%).

There was unanimous agreement to champion local collaborative effort (C2 Q10 100%) which was ranked as the 2nd highest priority by workshop participants. A high degree of consensus was shown towards supporting collaboration at the local community/ecosystem scale through (Q10) a cross-sector convening role (91%) building on existing partnerships (87%) and exploring new committee/board structures (71%).

9.8.3   Marine and terrestrial planning for the coast (Theme D)

The online survey research revealed that the marine planning system is not very effective across the land-sea interface at the current time (Q11, 76% participants). Furthermore it was highlighted that the overlap between the marine and terrestrial planning systems to 'secure compatibility' is not effectively encouraging collaboration between planning authorities and stakeholders in coastal areas (Q12, 73%).

Three suggestions were made about how to strengthen marine planning for the coast:

i)   National and regional leadership to improve coastal policy, provide stronger direction, enable support and political will for implementation at the local level (Q15 87%);

ii)   Statutory coastal plans nested within marine and terrestrial plans (building on existing voluntary plans) (Q14 81%);

iii)   Strengthen resource capacity/expertise through the existing marine and terrestrial planning systems, rather than develop a new approach for coastal planning (Q13 82%).

Workshop participants made further suggestions about how to implement these recommendations:

i)   Legislation driven by bottom-up needs (Q15 D3 67%)

ii)   Create a simplified local authority planning team (Q12 D1 61%)

iii)   Co-locate CEPs, IFCAs and other community partnerships (Q14 D2 67%).

The expert opinion provided by this research therefore suggests working with the existing legal framework for marine (and terrestrial) planning but strengthening the way it works through specific coastal policy. The legal/policy framework should allow for coastal plans to be nested within the marine and terrestrial planning systems, based on voluntary plans that already exist in some areas.

It is recommended that this is driven by a bottom-up approach i.e. that the legislation/policy be applied where it is needed. Delivery could be enabled through creating a simplified local authority planning team which could focus on the land-sea interface and/or co-locating partnership effort that may already exist in the form of CEPs, community partnerships (e.g. CCTs) and IFCAs.

9.8.4   Coastal stewardship (Theme E)

Workshop participants concluded that a national coastal policy would go a long way towards promoting coastal stewardship (Q16 90%). Policy delivery could be enabled through a statutory duty towards net environmental gain (Q16 77%) and statutory coastal plans (Q16 75%). Workshop participants unanimously said that we need a common cross-sectoral vision which is not provided through austerity (E2 (Q16) 100% =7th) to manage the sea as a public open space using the 'triple-bottom-line' approach (E1 (Q16) 95% 1st).

There is a need to bring together and co-ordinate efforts/initiatives (Q17) through:

i)   Joining up catchment and coastal co-ordination (95%);

ii)   Joining up marine-terrestrial or coastal plans (86%);

iii)   Empowering LAs (80%).

Implementation could be enabled through fuzzy institutional boundaries (E3 78% =12th).

The need for societal/behavioural change (Q18) would be addressed through building knowledge, skills and education (98%). Focusing on mechanisms which will build trust in local communities (93%) could be enabled by securing longer-term finance and investment in communication effort instead of project-based consultations (84%), possibly through a network of local stewards (69%). Overall it was suggested by workshop participants that we need to encourage a trust not fear approach to stakeholder engagement (E4 84% =2nd) and in all decision-making ask 'who's not in the room' (E5 89% =6th). Overall, governance should be at a scale that links people's sense of place with the coastal ecosystem (Q19 94%).

9.9   Summary of Action Statements

Implementation actions identified at the workshop are listed in Table 9.3 below with the level of agreement/dis-agreement or uncertainty expressed through the e-voting in the plenary presentation (Appendix 4E). This was followed by an overall position/priority rank for each action, which was indicated through final votes by using coloured dots on posters.

Table 9.3 Implementation action statements: consensus and position[134]

ACTION STATEMENT		Agree	Dis-agree	Don't Know	Overall Position		
TOPIC AREAS		%	%	%	TOTAL POINTS	Rank	%
A1	Regular local monitoring and engagement sustained through national policy requirement (linked to 25yr Environment Plan)	94	6	0	17	=4	11
A2	Bring people together through shared vision (e.g. biosphere) underpinned by appropriate governance structure which attracts sustainable finance	100	0	0	20	=2	13
B1	National strategy for the coast at/above central government to integrate depts. [Cabinet Office level].	72	6	22	17	=4	11
AB: APPROACH TO GOVERNANCE					54	First	35
C1	Identify areas within the 25yr Environment Plan which mention collaboration to illustrate its value to support delivery [Marine Pioneer]	76	6	18	7	9	5
C2	Champion local collaborative efforts in order to inspire & demonstrate the difference it can make for delivery on the ground (CPs)	100	0	0	20	=2	13
C3	Defra review of opportunities for staff promotion and development to encourage the retention of expertise and long term relationships with stakeholders [Defra].	83	0	17	6	10	4
C: ORGANISATIONS/INSTITUTIONAL FRAMEWORK					33	Third	22
D1	Create a simplified local authority planning team with a process approach and resources and education to make holistic decisions	61	22	17	5	11	3
D2	Co-located coastal and community partnerships which with government depts. could consult to feed into consultations.	66	6	28	4	=12	3
D3	Legislation driven by bottom-up needs which would influence how local planning authority (simplified team) makes planning decisions.	66	6	28	4	=12	3
D: MARINE PLANNING					13	Fourth	9
E1	The sea is a public open space, managed using the 'triple-bottom-line' (society, economy, environment).	94	0	6	24	1	16
E2	We need a vision. Austerity is not a vision. A common cross-sectoral vision is needed.	100	0	0	8	=7	5
E3	Officials need fuzzy institutional boundaries in their remits.	78	22	0	4	=12	3
E4	Move towards a trust not fear approach to stakeholder engagement	83	6	11	8	=7	5
E5	In all decision-making, ask 'who is not in the room'?	67	22	11	9	6	6
E: STEWARDSHIP					53	Second	35

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[134] Note that the consensus levels from the workshop are lower overall. This is due to the limited number of votes (sticky dots) given to each participant to help prioritise between the final set of implementation actions.

10 DISCUSSION

10.1 Introduction

This discussion chapter answers RQ3 *How could collaborative governance be enhanced to improve stewardship of UK coastal ecosystems?* It fulfils objective 4: to explore the results in comparison with the literature, and provide the foundations for the recommendations in the next chapter.

The thesis began with the assertion that the UK coast is a valuable but complex space, lacking strategic consideration in decision making, partly due to challenges around its definition (Chapter 2). A fragmented approach to governance has evolved and the consequences are becoming apparent through the gradual deterioration in coastal ecosystem health. Governance difficulties often stem from a lack of knowledge of ecosystem services, functioning and dynamics which could be resolved through better recognition of the coast as a socio-ecological system (Section 2.1). With coastal communities on the frontline of climate change impacts from sea level rise, flooding and coastal erosion, there are pressing needs for re-consideration of our approach to governance (Section 2.2).

The socio-legal approach to this research involved an 'open minded' method which considered the legal background and current context for governance, with an exploration of options for future direction. Chapter 3 argued that recognising and sustaining collaborative governance approaches could enable better governance and stewardship action, leading to healthier and more resilient coasts (Section 3.5). The evidence from the literature is evaluated in this chapter alongside options for improvements which gained consensus amongst the research participants (Chapters 7-9), to propose a route-map towards better governance. Chapter 10 draws together the socio-legal context presented in Phase 1 of the research (the literature review) with existing expert opinion from Phase 2 (the Delphi-based process) and Phase 3 (Delphi verification and workshop outcomes). This discussion (Phase 4) is sub-divided into three parts to reflect the structure of the literature review and results chapters.

Firstly, the discussion considers how to embrace the challenges with our current approach to coastal governance and the benefits of doing so. Secondly, the discussion proposes how collaborative governance could be enhanced through statutory and non-statutory approaches: which institutions are considered best placed to drive it; and how they could be strengthened through interventions at the national, regional and local levels. Based on the findings, a case is presented for approaches to governance which cross jurisdictional (spatial and sectoral) boundaries to obtain stronger representation of the coastal socio-ecological system (SES) in decision-making. This could be achieved through the proposition for a 'coastal-based approach' and SES units which focus on

implementation capacity across the land-sea interface. Thirdly, a socio-legal route-map to advance stewardship is offered, building on existing participatory engagement mechanisms. Coastal stewards would support place-based governance to strengthen coastal SES identity. A stronger character and 'voice' in decision-making could be achieved through trusteeship and guardianship. Particular emphasis is paid to England, drawing in comparisons from the devolved countries. Finally, a critical evaluation of the Delphi-based process and reflections on the validity of this research are provided.

10.2   Embracing the Challenges of Our Current Approach to Coastal Governance (Part One)

This research proposed that the current approach to coastal governance is lacking compared to the high value associated with coastal spaces for society, resources for the economy and its environmental importance. Over the past fifty years, the framework for coastal governance has been driven by a top-down approach, resulting in a complex range of legal, regulatory, policy and planning approaches. This includes a wide range of environmental designations to protect habitats, species, landscapes and natural resources based on a sustainability paradigm. A large number and range of organisations have powers, duties and institutional responsibilities towards the management of land and sea which meet at the coast. The regulatory approach, combined with a legacy of ownership and private property rights, dominates over emerging evidence towards the value of a commons approach to governance. Chapter 3 illustrated how collaborative governance approaches to support the coastal environment are growing, and opening up new forms of governance and institutional arrangements. Many types of partnership work, networks and community initiatives for coastal areas, which disperse power, have evolved in recent decades and are active and emerging. Yet, there remains no commonly understood or accepted (institutional) framework or driver for coastal policy, planning and delivery within or across the UK. This was brought to light by participants who expressed early in the research process that 'coastal policy is not popular anymore' and that 'we are an island nation which has turned its back upon the sea'. Previous attempts towards ICZM have weakened and to some extent been replaced by marine policy and planning, with a tendency for knowledge to exist in either terrestrial or marine domains rather than straddle both. Participants confirmed the assertion that attempts towards integration have lacked sustained implementation effort, with no obvious coastal policy or 'agenda' at the current time and no legislative or significant drivers.

10.2.1   Facilitating linkages for shared governance

This research presented an opportunity to bring together experts actively involved in coastal decision-making from marine, terrestrial and coastal perspectives, to consider future direction for

coastal governance. They engaged in a year-long journey through three iterative surveys and a workshop, to express their own and explore others views using a Delphi-based forecasting method. At the outset, participants shared views on the strengths and weaknesses of the current approach to governance then explored opportunities for the potential benefits of improving governance.

Overall, participants considered the legal and policy framework and the institutions in place to be strong, but they affirmed the picture presented by the marine horrendogram (Figure 2.4) - that there are weaknesses in the fragmented approach to governance. Participants highlighted a lack of integration, ecosystem approaches and leadership; challenges around the transparency and accountability of organisations and their inadequate capacity for monitoring, enforcement and collaborative effort. It was shown that implementation of the regulation (rather than its design) is compromised by the lack of capacity to work most effectively with it. Some of these challenges are offset by bottom-up approaches which help to fill the external collaboration gap discussed in Section 2.7. Participants recognised the benefits of engaging stakeholders to support clearer and more transparent interactions, giving greater legitimacy and buy-in to management. The adoption of approaches akin to collaborative governance theory seemed to be an accepted 'norm' with three-quarters of participants considering that collaboration is significantly embedded in what they do. However, expectations to involve local communities in decision making or encourage them to take ownership of issues are not being met, with weaknesses in communication and inadequate resources leading to 'improper localism'. The existing approach to engagement is often limited to formal and statutory consultations on projects, plans and development proposals but participants felt that co-design, management or community-led decision-making (bottom-up) approaches to governance are more supported. Collaboration is restricted by a lack of incentive and resources (e.g. staff capacity) to do so and the general approach to governance of the coastal ecosystem *as a whole* (or holistically) is considered weak.

Limited references were made to the integration and implementation mechanisms described in Chapter 2 – the Duty to Co-operate, Power of Competence, Coastal Concordat and joint planning/committees introduced through the Localism Act – implying that their implementation is weak. Participants suggested that the large number of planning, licencing and regulatory processes running in parallel may require top-down direction to resolve[135]. Clearer direction and strong

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[135] This is evident in recent moves (October 2020) by the MMO/Defra to strengthen the coastal concordat and enlist the sign-up of more Local Authorities to streamline the licencing process.

leadership from the national level is needed to help fund collaborative effort - with clearer communication and understanding needed to override the complexity in coastal governance.

10.2.2 Shared governance

There are differences in perspective over whether regulatory authorities should lead engagement to meet strategic aims or whether it is achieved through more shared governance such as co-creation, collective action and place-based governance. Existing UK coastal governance approaches were characterised in the middle of participation scales (Section 3.3.2). Generating a bottom-up sense of local ownership and enabling more decision-making at the local/regional level presents an opportunity to improve access to knowledge, citizen science and more informed planning and decision-making. Such an approach equates with the aspirations of the UK High Level Marine Objectives, Defra's 25 Year Environment Plan and the MMO's Marine Pioneer project recommendations, which include recommendations for place-based governance using natural capital approaches and systems modelling.

Evidence from the literature and the research participants suggests there is a need to focus more on integration and participation mechanisms through bottom-up approaches (A1, R3 Q1), but practitioners are looking towards the top-down approach to help fund collaborative effort (A2, R3 Q2). Research participants were very clear that the overriding need is to bring these approaches together through linking mechanisms, building on the existing governance framework, rather than establishing a new approach. Examples of how to link the approaches include investing in local monitoring, citizen science and engagement and facilitating networks to better engage with statutory processes (R3 Q3). The value of collaborating over an evidence base for knowledge-sharing is evident in the success of The Rivers Trust[136]. Networks encouraging engagement between statutory processes and with communities are also evident in the work of CEPs, IFCAs (England), MPPs (Scotland), PSBs (Wales) and other regional/ecosystem and community-based initiatives. These voluntary networks and 'soft' institutional arrangements can improve accountability, long-term and integrated approaches, and improve the effectiveness of legislation and policy, especially if communities take stronger ownership and responsibility for its implementation. These features of collaborative governance are likely to support stewardship action and vice-versa (Section 3.5). Further consideration of appropriate governance structures to support shared governance, are

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[136] The Rivers Trust grew significantly to support delivery of the Catchment Based Approach (CaBA) and retain a large role in supporting Catchment Partnerships, supported by funding from the Environment Agency, to provide data and evidence around the health of rivers and performance of the partnership approach (Arlin Rickard and Rob Collins, *pers.comm*, 2020). For further information see: https://www.theriverstrust.org/ and https://catchmentbasedapproach.org/ (accessed 13.11.2021).

therefore needed, in particular to attract finance for sustained delivery (R3 Q2 A2). Stronger (statutory) obligations which lever collaborative effort may be required and will be explored further below.

10.2.3   Sustaining finance for collaboration

Capacity constraints and funding across the UK have an impact on people's ability to deliver the most effective management, planning, governance, localism, development, communication and partnership working with stakeholders: research participants reported difficulties around trying to promote sustainability in an unsustainable funding environment. The importance of taking a long-term, as well as an integrated approach to collaborative governance was recognised, reducing emphasis on short term project approaches[137]. Embedding a systems and natural capital approach into decision-making may highlight the need to support collaborative engagement, by inflating the consideration of the social and environmental value of natural resources in decision-making (Rees *et al.*, 2020). Leadership is needed to make this happen, therefore research participants suggested it could be achieved through a national policy requirement (possibly linked to the 25YEP); an underlying duty towards networking; and/or a national strategy for the coast which will require political will and policy incentives (R3 Q5). These routes would give the bottom-up approach and mechanisms which support collaborative coastal governance more legitimacy (Weston and Bollier, 2013; Section 3.4). However, uncertainty remains about the incentive to make this happen.

To sustain finance for collaborative effort, the benefits must be apparent. Research participant's recognised that improving approaches to coastal governance would bring benefits such as greater clarity, accountability, trust and buy-in to management. To facilitate this, growing awareness of non-use value and promotion of a commons approach to governance, could reduce coastal 'grab' scenarios. Participants suggested that more decision-making could be undertaken at the local/regional level, providing well-funded local management and enforcement to generate an income stream. This evidence equates with the findings of the Marine Pioneer project (Lannin, 2021) which promoted sustainable financing options to support place-based decision-making. A more joined-up or holistic approach, in addition to increased consistency could be obtained, particularly through partnerships and political engagement at the landscape scale[138]. Opportunities exist through

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[137] Government policy was considered to be moving in the right direction to implement sustainable financing with examples including the South West Economic and Environment Partnership, Natural Capital Initiative wholescapes thinking guidance (Acreman, Maltby and Bradshaw, 2018) and recommendations from the Marine Pioneer projects (Lannin, 2021).

[138] In England, regional governance has been strengthened through Local Nature Partnerships and Local Enterprise Partnerships – but they have limited focus on the coast.

marine planning (discussed below), experience from the regional Marine Planning Partnerships in Scotland (Crawford, 2019) and through the Wales Future Generation Act. They could help shift the emphasis from short term project approaches to a long term approach. In turn, the benefits of improving engagement in coastal governance are likely to improve the ability to implement the legal, regulatory and policy framework which in turn lead to better conservation, resource sustainability and community resilience.

Participants concerns about *how* the existing legal, regulatory and policy framework is implemented demonstrate why the *socio*-legal approach for this research was helpful. The collaborative effort between (and within) institutions, together with their links with stakeholders and coastal communities, is considered key to improvement. However, evidence suggested that the powers and duties of existing organisations are not enough to resource collaborative effort, as it is not part of their statutory remit. There remains the possibility of the legal system offering something new to drive better implementation of existing powers/duties, which was not identified by practitioners at the current time.

10.3   Opportunities for Enhancing Collaborative Governance (Part Two)

With the inherited legal and regulatory framework considered a strength overall, the role of institutions in how to implement it becomes key to better governance (Theme C). This section explores the finding that additional (staff) capacity is required for linking mechanisms. It explores how this could be realised through the existing, or adjusted, organisational and institutional framework to fill the governance gap (Section 2.7).

The drivers and barriers to collaboration appear to be highly interconnected. At the level of central government through a review of staff capacity (and continuity) in Defra; at the institutional level by enabling staff to think beyond their immediate statutory duties and have the resources to engage third party facilitators; and at the non-statutory level to provide enough continuity of funding to maximise benefit and avoid the dis-benefits of short-term funding. Empowering community involvement, by increasing understanding of who has what regulatory responsibilities, and engaging them in monitoring effort, could help to lever collaborative governance.

The discussion will now address two questions over how to enhance collaborative governance by supporting external collaboration:

- How to incentivise collaboration through statutory duties and existing institutions;

- How to strengthen non-statutory initiatives to support collaboration.

At the end of the discussion of the Part Two results, the question of whether new legal incentives are needed to incentivise collaborative mechanisms, will be raised, before discussion of the Part 3 results on a longer term vision and stewardship.

10.3.1 Statutory and non-statutory mechanisms

The literature and primary research presented evidence that better collaboration could override the complexity of current institutional arrangements. However, stronger mechanisms are needed to improve collaborative governance between and within institutions and between them, other stakeholders, and coastal communities. As shown in Chapter 3, collaborative governance emphasises shared power and joint decision-making (Section 3.2.2; Blaney, 2003; Walker, 2011). The research participants considered that UK Government bodies/agencies with coastal responsibilities are limited in their ability to share power and encourage joint decision-making. The priority placed on statutory duties is not always conducive to sharing power, encouraging joint decision-making or collaborative governance. Instead, collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation; community-driven, voluntary and non-governmental initiatives - which have less direct power and very limited duties. In addition, the powers and duties of statutory bodies often pertain to a specific sector or priority, therefore the drive for collaboration is constrained by the nature of the silo. Statutory bodies also run the risk of operating *ultra vires* if they extend too far beyond these duties. Consequently, staff working for statutory organisations, are focused on delivering their statutory remits (Table 2.1 Governance roles of statutory and advisory bodies with legal responsibilities for the coast in England), whereas staff employed by non-statutory partnerships have more flexibility.

Incentives have been introduced to share decision-making through the duty to co-operate, the power of competence and diversifying finance at the local level, but these mechanisms have less leverage than accounting to central government for the delivery of statutory targets. Initiatives designed to encourage collaboration, such as CEPs or CCTs have no statutory powers, with limited mandate (and capacity) to get statutory bodies to collaborate, resulting in continued domination of a siloed approach. Despite two decades of government policy towards integration and calls for co-operation and co-ordination, the recent legal and policy framework leaves a gap between ideals and practical implementation. Encouraging collaboration is considered key to success, but the incentive has to be justified by clear linkage between the value of the investment and the delivery of statutory

targets. Table 10.1 highlights the difference between statutory duties and non-statutory objectives of different types of organisation.

Table 10.1 Examples of statutory duties and non-statutory objectives of key organisations.

ORGANISATION TYPE	EXAMPLE	STATUTORY duties	NON-STATUTORY objectives
STATUTORY PUBLIC BODY	Marine Management Organisation (MMO)	Contribution towards sustainable development through marine planning and licencing under the MaCAA (2009). Includes duties to engage with stakeholders.	Marine, catchment and landscape pioneer projects (with Defra backing). Application is unclear as engaging in stewardship activity beyond statutory duties could risk operating *ultra-vires*.
NON-GOVERNMENTAL ORGANISATION (NGO)	Marine Conservation Society, WWF-UK, The Wildlife Trusts	National NGOs often collaborate with government to evolve policy and maybe financed for certain projects, but they have no statutory duty towards the public interest.	Charity status: actively promote awareness of the marine environment involving members in campaigning and direct action from national to local level with trustees, officers and volunteers.
COMBINED (STATUTORY) COMMITTEES	Inshore Fisheries and Conservation Authority (IFCA)	Balance conservation and fisheries management (MaCAA, 2009) through a regional committee made up of local authorities and national appointees with technical expertise.	IFCA powers and duties are prescribed in legislation. Engaging in stewardship activity beyond statutory duties could risk operating *ultra-vires*.
	Coastal Group Shoreline Management Plan (SMP)	No statutory role but closely aligned to EA & LA flooding and coastal erosion risk management (FCERM) policy.	Focused on LA co-ordination for the coastal fringe for FCERM purposes (rather than user management). Public consultation on SMPs.
NON-STATUTORY INITIATIVES	Catchment Partnership	Support delivery of EAs statutory requirements i.e. Good Ecological Status under the Water Framework Directive (EC, 2000) and River Basin District (RBD) policy and project delivery across the whole catchment.	Charity and/or Company partnerships typically hosted by a Rivers Trust or Wildlife Trust, actively promoting community engagement at the catchment scale through catchment co-ordinators, officers and trustees/directors.
	Coastal/Estuary Partnership	No specific statutory responsibilities, but support partners delivery loosely linked to background ICM policy (e.g. HLMOs, NPPF, MPAs) and project delivery across a section of coast or estuary.	Few have formal charity status but the goodwill of funding partners and host bodies with voluntary supporters levered towards a 'whole' ecosystem approach at the local level, employing estuary/coastal officers, typically overseen by a voluntary steering group.

To further elaborate on the difference between the organisations with statutory duties and non-statutory objectives, Figure 10.1 (below) indicates how existing organisations with statutory duties (shown in blue) work in relation to the coast, compared to formal (statutory) and informal (non-statutory) collaboration mechanisms (shown in orange). It illustrates how the policy and statutory planning framework splits land and sea with an overlap between the mean high and mean low water mark. It also illustrates the role of key statutory bodies working 'top-down' and entirely non-statutory initiatives working from the 'bottom-up'. In addition, there are combined committees which have statutory responsibilities bringing in advisors/community representatives. It demonstrates the difference between:

i)   Statutory bodies (national): the MMO, EA and LAs who have statutory duties with a marine and/or terrestrial focus, and some overlap of duties which span the land-sea interface (e.g.

for planning, flooding and coastal erosion risk management, as illustrated in Chapter 2 Table 2.1).

ii) Joint committees (regional): IFCAs statutory functions are supported by committees involving a combination of public body representation (e.g. LA members) and independent representatives (e.g. MMO appointees) with independent experts/community representatives (similar to RFCCs[139]). LNPs and LEPs support strategic terrestrial planning, primarily constituted from LAs and the private sector, with the appointment of independent experts. They predominantly focus on the terrestrial environment, although a few have a coastal focus with the primary objective to support biodiversity or economic development. SMP coastal groups bring together LAs, land drainage authorities (EA & IDBs) and associate partners such as statutory advisory bodies (e.g. Natural England) to identify and advise on strategic planning for shoreline protection and restoration based on sediment cells. Some have a wider engagement platform for elected members to represent the public[140].

iii) Non-statutory initiatives (local): CEPs and CaBA partnerships engage statutory and non-statutory partners in collaborative projects. They also support delivery of statutory duties, guided by statutory partners who participate on an ad hoc basis (e.g. through annual contributions to sit on steering groups).

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[139] IFCAs and RFCCs have a similar governing structures, bringing together members appointed by lead Local Flood Authorities and independent members with relevant experience across catchments and shorelines, to inform investment plans and understand local issues to balance local and national priorities (see https://www.gov.uk/government/groups/south-west-regional-flood-and-coastal-committee#papers (accessed 15.12.2020)

[140] By way of example, the Severn Estuary Coastal Group states that *'The members [of the Elected Member Forum] were involved through a forum, building trust and understanding with the Client Steering Group. The EMF fully endorses the plan's findings and was instrumental in obtaining Local Authority approvals'* In addition advice was sought from key stakeholders in order to inform the preparation of the SMP – considered to be organisations and individuals directly affected by coastal processes along the SMP frontage over the next 100 years. Around 200 stakeholders were identified. https://severnestuarycoastalgroup.org.uk/wp-content/uploads/sites/4/2016/02/Item-1-SMP19.pdf. However, this approach is not universal: the South Devon and Dorset Coastal Advisory Group does not appear to have a similar forum: https://sdadcag.org/groupmembers.html (accessed 15.12.2020).
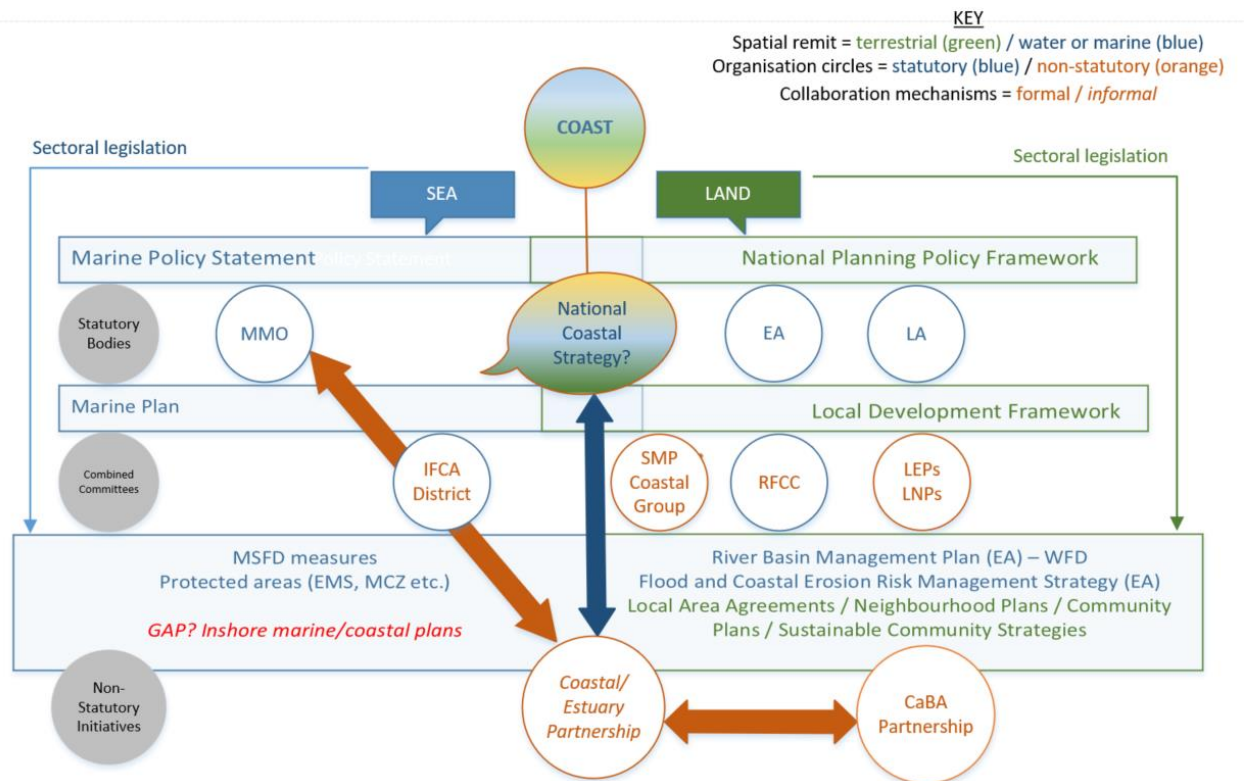
Figure 10.1 Statutory and non-statutory mechanisms to support collaborative coastal governance in England.

Research participants indicated that CEPs, EMS management groups and IFCAs are most effectively driving collaboration, with CEPs the only mechanism focused entirely on the land-sea interface and covering a wide range of management issues. They undertake two basic functions: supporting information exchange between statutory partners; and community awareness raising/engagement activity through forums, focus groups and voluntary projects/activities. They differ from CaBA partnerships in that they do not operate under any specific national policy framework. The EA support CaBA Partnerships to enable delivery of River Basin Management Plans and WFD; but there is no equivalent provision for implementation of the MSFD (now UK Marine Strategy) at the local level: CEPs are not mandated to do this. This highlights how CEPs could fulfil an implementation gap, with their non-statutory role supporting statutory functions. Research participants expressed support for their role, but the challenge remains regarding their power and capacity to override regulatory and statutory siloes.

We now turn to how to strengthen collaborative governance at the national, regional and local levels, building on the existing institutional framework pictured above.

10.3.2   Policy incentives and nationally driven mechanisms

Suggestions for new leadership at the national scale included a new Ministry for Coastal Affairs, a cross-ministerial board, a UK Select Committee/Cabinet Office and/or a linking mechanism across government departments. At the local level participants strongly supported the role of LAs, CEPs and IFCAs in England, MPPs in Scotland and PSBs in Wales. Overall, results clearly indicated that leadership needs to come from the public sector.

Workshop participants suggested a way to start incentivising collaboration was to identify areas within the 25 YEP which mention collaboration to illustrate its' value to support delivery (R3 Q6 76% - C1). There are two direct references to collaboration in the 25 YEP which are relevant: promoting collaboration between the health and environment sectors; and recognition that using and managing our seas sustainably will require multilateral collaboration. There is also reference to *"joining forces with local stakeholders to find the most appropriate ways of drawing down the riches of the sea in a sustainable way"* (HM Government, 2018b, p.106)*.* However, there is no specific reference to the coast or land-sea interface. Moreover, commitment is made to completing marine plans and to work with adjacent marine plans. The only reference to LAs in this regard is the desire for them all to be signed up to the Coastal Concordat. The aim is to generate long term efficiency savings for regulators, advisors and applicants and reduce costs to the applicant (developer) through better working, including less time needed for individual discussions with all the bodies concerned. The coastal concordat may make the regulatory process more coordinated but it is hard to see how it makes it more transparent. A few participants recognised that the perceived need for streamlining becomes less important if collaborative mechanisms are given enough priority to be effective (R2 Q12 p.228).

Both the 25 YEP and Coastal Concordat fall short of supporting strategic planning for the land-sea interface and collaborative governance, including the engagement of coastal communities, as they continue to rely on consultation processes associated with individual development/licencing decisions. The MMO has made efforts to raise awareness with a guide to marine planning and encouraging LAs to sign up to the Coastal Concordat. In addition, the Marine Pioneer recommendations suggest 'integrated planning and delivery needs good governance' and 'community empowerment' (Lannin, 2021) and also refers to stewardship, but it falls short of specifying how to deliver it. Legislative and policy drivers to encourage land-sea integration exist (Section 3.3), but defined and realistic proposals for how to implement the ambition are still lacking.

10.3.3 A new national coastal strategy to drive political will and policy momentum

Research participants proposed that collaborative governance could be driven by renewed political will and policy momentum through a national strategy for the coast (B1 72% ranked the 4th most important implementation action by workshop participants). They suggested that this could be actioned at/above central government to integrate departments from the Cabinet Office level (not Defra) to involve all regulators and could lead to strengthening voluntary initiatives and legal incentives in the process. This recommendation was motivated by a perception that there is a need for a statutory duty and/or requirement for collaboration which involved socio-economic duties as well as the environmental objectives, from which ICZM policy and CEPs originated. A new national coastal strategy could lead to more reliable long-term funding through mutual interest and involvement from all relevant stakeholders, generating a stronger vision for the coast. A national strategy could promote leadership, offer a single overview role for coastal matters and potentially divest more responsibility from higher to lower tiers of government, thereby improve clarity and understanding of roles and responsibilities. A national coastal policy could lever the commitment to collaboration through existing regional mechanisms: marine plans, LEPs and LNPs in England – to focus more on the coast at the regional scale. It could also lever stronger collaboration between the MMO and LAs, incentivising local monitoring and engagement (R3 Q1).

Leadership through a national coastal strategy and renewed coastal policy could help to fuel local leadership and delivery to override the current top-down and siloed approach. However, it is hard to see where mobilisation would arise. Research participants suggested lobbying by coastal fora to coastal MPs, and an apolitical platform offering long-term and cross-bench support (perhaps through the House of Lords) obtaining political will to withstand sectoral powers. The emerging Coastal Communities APPG[141] has the potential to address this recommendation by increasing political attention. It is not within the scope of this research to dwell further on the content of any new national coastal strategy or policy, apart from to suggest that it should build on previous ICZM policy effort and enable a focus on coastal resource sustainability to meet other areas of government delivery for integrated, place-based delivery and coastal community resilience.

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[141] The new All Party Parliamentary Group (APPG) for coastal communities, stems from a representation by the Local Government Association, Coastal Partnerships Network and Coastal Communities Alliance to the Treasury, with a call for coastal towns to have their own Minister (CMS, September 2020). https://www.parallelparliament.co.uk/APPG/coastal-communities (accessed 08.04.2022)

10.3.4 Compatibility of plans across the land-sea interface: the role of Marine Planning Authorities

The Marine Acts were considered by research participants to be an important legal and policy driver for collaboration (R1 Q9b). Aspirations included a new public agency as a 'go-to' place which could help to improve integration, including across the land-sea divide in coastal areas. Yet the Marine Acts were not clear about *how* the marine planning authorities (MMO, Marine Scotland, Welsh & NI Governments) would achieve integration through the specified compatibility between new marine plans and the long-standing terrestrial planning system. A specific commitment to seek compatibility requires the stronger involvement of LAs – there was little specific evidence around the extent to which this was happening and the mechanisms used. Research participants perceived that marine planning had the potential to drive more integration but it has not yet had enough time to mature[142]. A more comprehensive approach to planning, policy and its implementation could be achieved by facilitating collaborative initiatives which build their agenda and actions through consensus to get buy into the plans (Gray and Purdy, 2018; Dukes, Firehock and Birkhoff, 2011; Walker, 2011; Emerson and Nabatchi, 2015b). It has also not helped that the plans only contain policy rather than spatial allocations, which could evolve through the next iteration. The MMO-led Marine Pioneer programme (2017-2021) concluded that integrated planning and delivery required stronger community ownership and mechanisms which would support multi-level collaborative governance[143].

10.3.5 Nested coastal plans to support regional marine plans and their local delivery

Coastal planning and ICZM effort though the 1990s and 2000s waned as momentum grew around the Marine Acts, with some of the aspiration for integration effort remaining in the background through the NPPF, MPS and HLMOs (Section 2.7). The overlap between marine and terrestrial planning was designed to help ensure integration, but the difference in scale and limited staff capacity for active connectivity between marine planning authorities and LAs presents a barrier to fuller engagement (R3 Q11: 76%). The duty to 'secure compatibility' between each other's plans lacks the power to drive effective integration/implementation. The research participants offered clear recommendations to strengthen resource capacity/expertise through the existing two systems

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[142] The reality across England has been a core marine planning team with regional staff to support stakeholder engagement, which has not enabled the MMO to champion coastal collaboration at a local scale. One or two regional MMO planners need to engage with many more Local Authorities, therefore offering very limited capacity (if any) to engage at the level of Parish Councils and other coastal community groups with marine plan consultations.
[143] The Scottish approach to regional marine planning has enabled more capacity within the regions. CEPs received additional capacity to drive MPPs (often based in the same office/team). In England (and Wales) voluntary CEPs have been asked to support the marine plan process on an ad-hoc basis. Sharing of experience between these two approaches and analysis of the pros/cons, would be informative.

(rather than develop a new approach for coastal planning - R3 Q13 82%) but recommended statutory coastal plans nested *within* marine and terrestrial plans, perhaps building on existing voluntary plans (R3 Q14 81%). This could include increased communication and collaboration between devolved administrations to apply a more cohesive approach to planning across national boundaries.

Nested coastal plans would support implementation at the local level (R3 Q15 87%) especially if backed up by national and regional leadership through a national strategy for the coast. The workshop participants suggested the creation of a simplified local authority planning team to help achieve this (D1 from R3 Q12: 61%), due to a mismatch between the expertise of land-based planners and marine- planners and the need for more common ground. This could also help to address the mismatch in timing between the planning cycles.

Statutory status for nested coastal plans

Support for statutory coastal plans was higher than voluntary plans (R2 Q18 p.236) but could build on existing voluntary plans to become statutory guidance within the marine and terrestrial planning systems. Strengthening marine planning at the local scale was more supported than strengthening terrestrial planning at the regional scale. The workshop participants suggested that co-located CEPs and CCTs could help to achieve this (D2 from R3 Q14: 67%)[144]. Collaborative capacity in marine plan implementation appears higher in Scotland through the MPPs, than in Wales or England. CEPs in England or Wales are not currently resourced to provide a routine role in supporting marine planning. The consensus for nested coastal plans suggests they would be a lever to encourage the MMO, Welsh and NI Government to strengthen stakeholder (including community) engagement in marine plans, whether or not the plans became part of the statutory marine (and/or terrestrial) planning system. All Scottish regional marine plans are already statutory, with the engagement process supported by non-statutory MPPs.

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[144] Across England, the first iteration of regional marine plans involved the MMO engaging directly with stakeholders through workshops and consultation processes, sometimes supported by CEPs. The 2nd iteration of marine plans could helpfully involve more coastal community engagement to ensure buy-in to the plan policies (particularly if they become spatial). In Scotland, MPPs are evolving with the support of coastal partnerships (such as the Clyde Forum and Solway Firth Partnership) specifically to foster communication and engagement in regional marine plans. This is presenting challenges and opportunities around governance, stakeholder representation and citizen engagement (*pers comm.* Isabel Glasgow & Anthony Gallagher, Chairs of the Clyde Forum and Clyde Marine Planning Partnership, 2018-2020).

Fulfilling the LSI mandate democratically

A national coastal strategy could therefore enshrine a commitment to nested coastal plans which would fulfil the LSI requirement for marine planning. However, democratic accountability needs to be resolved – there is disparity between terrestrial local plans being accountable to the local demographic system, while devolved and English regional marine plans sit under the Secretary of State and devolved ministers. Several options exist to take this forward, for example:

- The Scottish MPP model which offers a route to bridging the link between national planning policy and local politics, building on the work of the Scottish CEPs.
- CEPs could support the evolution of new nested coastal plans in England, Wales and NI and help to resolve the perceived deficiencies in engagement with marine plans. Many already have voluntary coastal/estuary plans and strategies which could be strengthened. This could help to release sustained investment for bottom-up initiatives and aid implementation of national strategy.
- Encourage engagement through the leadership of Parish Councils, (as demonstrated at Tollesbury, Essex) through a Neighbourhood Plan asserting ownership of the foreshore. It is yet to be tested but could have interesting implications for strengthening licencing and enforcement with visible engagement by local officers/ community leaders[145].
- Other 'joint' committees such as the IFCAs have democratic accountability through the membership of local councillors, but their functions are currently limited to fisheries & conservation.

The local ecosystem focus of IFCAs, coastal groups for SMPs and CEPs, is considered to be more meaningful to local stakeholders than larger marine regions which have been criticised for drawing arbitrary lines across perceived coastal ecosystems (e.g. Lyme Bay and the Severn Estuary). Unfortunately, it is possible that there is a lack of political and economic incentive to properly resource marine planning and enable it to be fully accountable at the local level. Opportunities associated with the 'blue growth' agenda could redirect attention away from the environmental and social well-being of coastal communities towards the national economic potential from our coasts and seas, although strong counter-arguments are emerging for restoring coastal and marine habitats to help provide carbon storage (Estuarine and Coastal Sciences Association, 2022). Maritime 'growth' may have provided strong incentive for the marine planning system, but involving coastal

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[145] Roger Lankaster *pers.comm (2019).*

communities in coastal and marine planning is more likely to lead to social acceptability and less demand for (expensive) enforcement action later on.

In summary, national/regional leadership through a new national coastal strategy could lever the political will and policy momentum for nested (statutory) coastal plans. This could realise the resource capacity and expertise to effectively encourage collaboration at the local level. Coastal plans nested within the existing terrestrial and marine planning processes could be a hook upon which to focus this collaboration and achieve better land-sea integration. Building on existing collaborative mechanisms may be the easiest way to achieve these aims, particularly if experience from the MPPs in Scotland is utilised. It could help inform the evolution of CEPs to work more closely with the marine planning authorities, LA planners and perhaps local Parish/Town Councils. This presents a route to fulfil the LSI mandate democratically.

10.3.6   Strengthening collaborative governance through regional and local partnerships

Research participants considered that collaboration is best driven by initiatives established for the purpose of integration, planning or conservation with CEPs, LAs and IFCAs identified by participants to offer the strongest models. Other collaborative mechanisms such as EMS management groups, coastal groups and RFCCs are recognised as valuable, but aren't as broad in their remit, stakeholder representation or engagement.

CEPs and the IFCA model

As shown in Figure 10.1, CEPs and IFCAs are most active across the land-sea interface at the local and regional level, engaging stakeholders in a wide range of management issues and decisions from fisheries byelaws, habitat protection, recreation and access, to awareness raising and voluntary activities relating to any socio-economic or environmental issues.

- IFCAs were strongly supported by research participants for their democratic governance arrangements as they bring independent expertise (appointed nationally) together with local councillors and public financing. IFCAs appear to present a good model of collaboration and accountability, bringing diverse voices together for fisheries and conservation management. However, their ability to represent multiple coastal interests is limited to their remit towards fisheries and conservation. Extending the IFCA governance model to include management of recreational activities such as bait digging, angling, jet-skiing and bathing water use, with local authority representatives accountable alongside independent experts appointed by the MMO, could be worthy of further investigation.

- CEPs and the partnership approach are considered the strongest ways – alongside LAs – to lead coastal governance at the local level, but capacity to facilitate the collaborative effort is lacking. Frequent past reference to CEPs being 'talking shops' may reflect the lack of commitment and authority that these partnerships have experienced. However, research participants clearly recognised the benefits, therefore there may be other power factors at play (Gray and Purdy, 2018). Learning from the evidence presented by CaBA about their returns on investment would be helpful[146].

Despite three decades of ICZM evolution and a previous government ICZM strategy, there is currently no national policy or recognised framework under which CEPs operate. There is a voluntary and informal network of officers - the Coastal Partnerships Network - established by them in 2006. The role of CEPs in facilitating communication between institutions; *and* facilitating dialogue between communities and decision-makers across the LSI, was recognised in the formation of MPPs in Scotland. They are evolving to support statutory inshore marine plans, in a similar manner that other CEPs could do in England, Wales and NI. Whilst 'partnership working' is well understood for its value, a key limitation lies around recognition of the need or value to invest in longer-term entities to foster facilitation, rather than project-based and short term partnership arrangements. Questions can be asked such as '*What are the additional gains from investing in an institution or mechanism designed to focus on communication*' as it is possible that the well-established CEPs are verging on evolving new institutions for governance which pose questions about the role and effectiveness of existing institutions. This may play into and provoke re-consideration of much wider political approaches to governance at the local level which are beyond the scope of this research.

This research has highlighted recognition around the need for and value of collaborative effort, but additional proof will be needed through evidencing existing practice. Associated with this are likely to be fears and reservations around the representativeness and power of these entities as identified in earlier literature (Section 3.3.2; Fletcher, 2003; McKenna and Cooper, 2006). This is especially important due to inconsistencies of practice/experience driven by individual characters and their ad-hoc funding opportunities. But *without* collaborative cross-sector and multi-scale collaborative *effort,* institutions are more likely to continue working in their siloes and less likely to engage wider members of society in their decision-making. CEPs are the only multi-disciplinary, cross-sector

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[146] Partners involved in CEPs who were interviewed in 2007-08, indicated that there are financial benefits to working in partnership (Entec, 2008) but further work to evaluate their effectiveness has not been forthcoming. Comparable evidence is available from Catchment Partnerships which has shown returns on investment of at least 3 to 1 (e.g. CaBA, 2018) but more evaluation work is needed around the effectiveness of CEPs as mechanisms to support collaborative governance.

collaborative framework that attempts to bring all interests together and (therefore) most closely offers a route to governance at the scale of the coastal SES (across administrative boundaries). To take this argument further, there is therefore a need for more open debate about the role, function, power and duties of CEPs as institutional entities capable of supporting governance across borders. Their relationship/synergy with IFCAs also warrants further exploration, as does the accountability model of the IFCAs for inshore fisheries in relation to the role of MPPs in Scotland.

Leadership through partnerships, people skills and targets

Research participants indicated that the right skills to drive effective collaboration, includes strong networking, facilitation, fairness and leadership skills. It requires people who don't have competing interests in order to act as an 'honest broker'. Their skills need to be met with capacity and continuity to sustain their collaborative effort, with partnership working part of people's core remit. Targets to drive collaborative effort are lacking, particularly for the coast where CEPs would benefit from a similar annual monitoring and evaluation programme that exists for CaBA partnerships (a condition of their annual funding from the Environment Agency). This is emerging at the time of publication of this thesis, through the 'Championing Coordination Programme (3Cs)' led by the Environment Agency.

Research participants suggested that collaboration across land and sea could involve stakeholders who wear multiple hats. To some extent this already happens, with local 'leaders' who may be involved in different interests participating in CEPs, LA councillors/officers participating in different stakeholder groups such as Coastal Groups for SMPs, RFCCs, IFCAs and EMS and/or landscape-scale partnerships such as AONB committees. The active engagement of trusted stakeholders who can represent multiple interests fairly and openly, is not actively stimulated or formalised 'from the top', but there may be potential to encourage it further. A lack of leadership and expertise emerged as a key barrier and to override institutional barriers, significant incentive or resources are required. No legal drivers were identified to act as a barrier to collaboration (R1) but some participants suggested that leadership would only arise if there is a legal duty to do so as well as funding (R2 Q143 p.230).

10.3.7   Crossing jurisdictional (spatial and sectoral) boundaries for coastal SES units

Historical boundaries (e.g. LA administrative areas) often split a coastal SES such as an estuary (e.g. the Severn Estuary, Dee Estuary, Solway Firth) and may not be fit for purpose to meet the demands of sustainable natural resource management. Research on place attachment, empathy and interactions for sustainability (e.g. Brown et al 2019) lean towards suggesting that vision and new approaches to governance should avoid boundaries and borders to develop new institutions which

serve to define and organise the population to be governed at a scale which fits more closely with an ecosystem or new 'imaginary unities' (Section 3.1). Research participants' final recommendation for governance at the scale of an ecosystem supports this assertion. Yet there has been limited research on practical mechanisms or legal designs for collaborative governance regimes (Cameron and Darren, 2011; Emerson and Gerlak, 2014). Institutional structures can make or break collaborative processes & create new governance processes. Likewise, collaborative processes can lead to the creation of new institutions as described in Section 3.2. Based on the assertion that bottom-up, co-design and commons approaches to governance are becoming more common-place, and mechanisms such as CEPs, IFCAs and MPPs are recognised for their ability to support collaborative governance, it follows that institutions such as these could evolve more strongly to govern across jurisdictional boundaries for new coastal SES units.

This research has shown little consideration amongst practicing professionals of whether CEPs, LEPs and LNPs in England, which currently cross administrative borders, could evolve further beyond the voluntary and project-based effort to longer term, secure institutions focusing on the coast. The literature recognises that connecting institutions across levels and scales can enhance capacity to deal with change (Folke, 2007; Berdej and Armitage, 2016; Brown *et al.*, 2019 and others; Section 3.1.2). Distancing humans from nature can create the conditions for over-exploitation, whereas place-attachment may provide the foundations for stewardship. There is therefore potential for a win-win through the creation of institutions across boundaries which support collaborative governance. Although new mechanisms to support collaborative governance are not all about institutions, as social and cultural practices are very important, the role of institutional practices and their recognised forms could become increasingly valuable.

At the outset of this research a small proportion of research participants (8%) considered the coastal ecosystem itself to be a driver for collaborative effort (R1 Q9b). Further explanation about driving collaboration at the local community/ecosystem scale was given in R2 (Q14b p231) where strong support for CEPs was based on their defined focus. This was especially evident where they are seen as well supported, holistic groups with well-formed and trusted relationships leading to greater buy-in and self-regulation. Strong and clear planning across boundaries was recommended, with alignment of the processes of plan making for land and sea being resolved through a national coastal strategy and/or nested coastal plans as discussed above. Through the Delphi-based process, consensus grew around planning at a scale which is meaningful and related to, or embeds both 'natural' processes and people's sense of place and identity. This was seen as a driver towards commitment and ownership of a coastal ecosystem as suggested by authors such as Depledge and

Bird (2009) where personal attachment and health-related opportunities are inter-connected. Strong consensus emerged about the need for a cross-sector convening role at the local community/ecosystem scale that would build on existing and emerging governance structures such as coastal, catchment and marine planning partnerships. The statutory duty placed on NRW to deliver area statements in Wales, that can have fuzzy boundaries, may be a mechanism to encourage community engagement linked to ecosystem services, as suggested by research participants in the workshop (R3 Q10 p265).

These results lead towards further investigation of the dynamics of boundary and bridging organisations, deliberative democracy and the possibility of evolutionary governance for coastal ecosystems. Existing informal and non-statutory mechanisms could drive stronger leadership, particularly if led by a new national coastal strategy and a statutory duty toward nested coastal plans. It could lead to simpler/more transparent governance to optimise public benefit, especially if it encouraged a unifying vision. Existing collaboration is mainly driven by combined committees (such as IFCAs) and non-statutory (often short-term) projects and initiatives supported by CEPs. The latter do not sit under any overarching legal or policy framework, but are the only collaboration mechanism with a broad/neutral perspective co-ordinating multiple sectoral demands on coastal resources. These partnerships are encouraging statutory bodies to work together as well as coastal communities to engage in decision-making – demonstrating multi-level collaborative governance. However, they lack consistent monitoring and evaluation so it is difficult to report on their effectiveness and it is well-known that across the country there are very mixed experiences of their impact and success. However, the evolution of the proposition for a coastal based approach 'CoBA' (Bradshaw *et al.* 2020) is evidence that support for renewed effort towards the coast is gaining momentum.

10.3.8   The proposition for a coastal based approach: 'CoBA'

Following the Delphi-based *UK Coastal Governance* research, the proposition for a coastal-based approach (CoBA) emerged in 2020-21 (supported by the author). It builds on the catchment based approach (CaBA) to increase attention towards the coast as a SES, requiring more investment in integration across the LSI through CEPs, providing an 'umbrella' between two planning systems and existing sectoral and statutory obligations towards the coast. Figure 10.2 illustrates the CoBA proposition to *"bridge the gap in the overlap"* between policy and planning objectives and

governance mechanisms (Earll *et al.*, 2020)[147]. The concept has been promoted by a 'CoBA committee' involving representatives of the MMO, EA, NE, LGA, IFCA Association, NGOs and the Coastal Partnerships Network and individual CEPs[148]. The proposition suggested that there should be full coverage of CEPs around the coast of England to facilitate stronger governance at the local and regional levels. Momentum is developing through the EAs 'Championing Coastal Coordination (3Cs)' programme (Damian Crilly, *pers.comm.*, October 2021), which supported 13 initiatives including two 'CoBA trials' for Cornwall and the Severn. It also involves consideration of the need for a national supporting framework including a new national coastal 'hub' to build on the existing work of the Coastal Partnerships Network.

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[147]CoBA website: https://uwe-repository.worktribe.com/OutputFile/7244505 (accessed 09.04.2022).

[148] https://msep.org.uk/the-coastal-based-approach/ (accessed 09.04.2022).

Figure 10.2 The Coastal Based Approach (CoBA) Proposition

Bridging the gap in the overlap through a Coastal Based Approach: CoBA
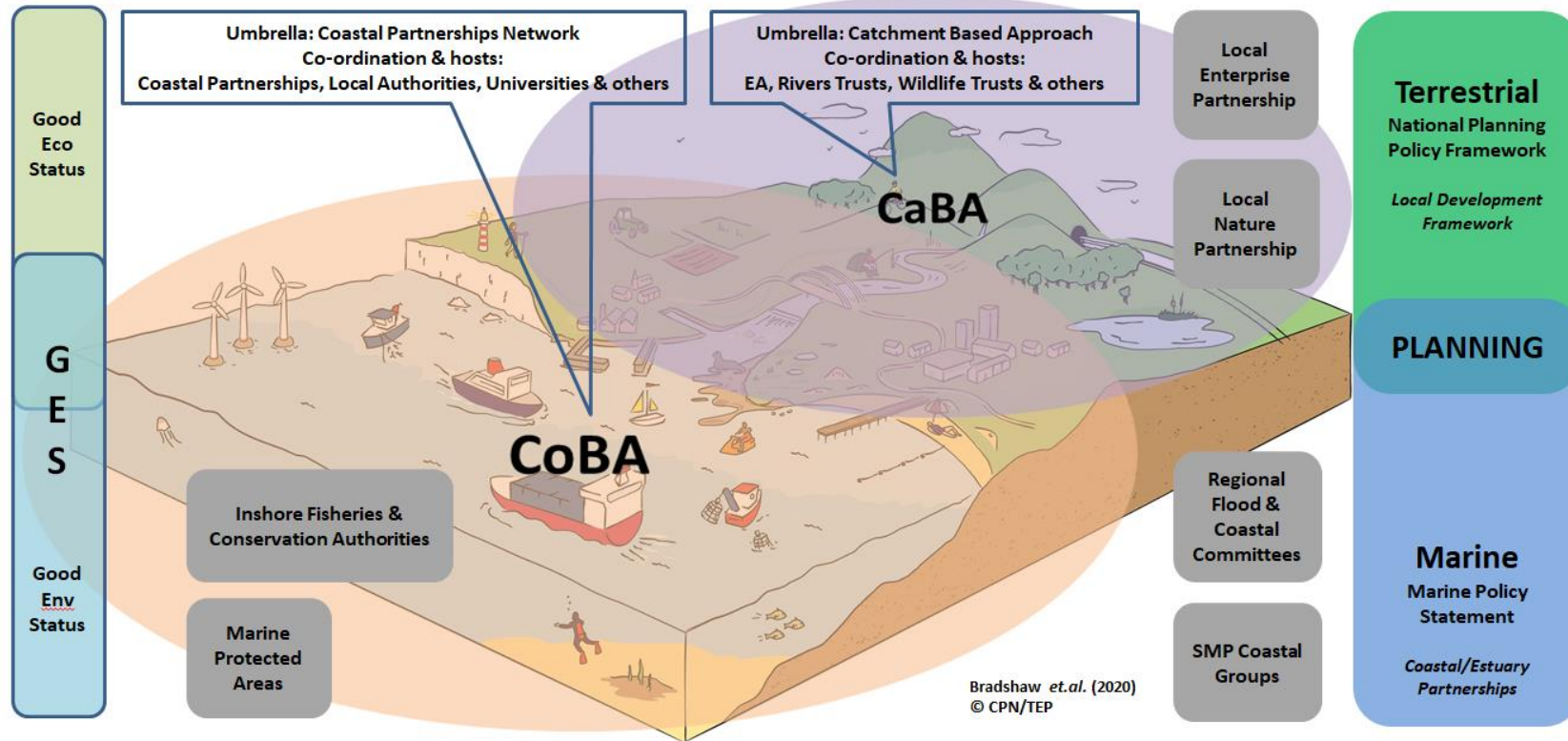
NOTES

Grey boxes are sector/issue-focused groups, committees or partnerships. CaBA/CoBA are cross-sector collaboration networks.

CaBA delivery is supported by over 100 Catchment Partnerships. The equivalent mechanism exists in around 60 voluntary Coastal/Estuary Partnerships.

Terrestrial & Marine Plans are statutory. Catchment & Coastal Partnerships are non-statutory but support statutory delivery, including the achievement of Good Ecological Status for Clean and Plentiful Water, and Good Environmental Status for the UK Marine Strategy.

10.3.9 Implementation capacity to full the governance gap

Before we turn to the final area of results for discussion around stewardship, it is valuable to crystalize the effort needed to address the implementation gap through existing governance arrangements, based on research participants' recommendations. In Chapter 3 the existing legislation for the coastal & marine environment was reviewed and the argument presented that there is a lack of join-up between the regulatory 'siloes'. This assertion has been verified by the Delphi-based participants who overall considered that the existing legal framework is adequate, but its implementation is the bigger issue.

Policy incentives towards the coast and collaboration were more supported (or perhaps perceived to be more realistic) than legal incentives to strengthen collaboration (R3 Q5.7 82%). In the absence of changes to existing legislation or any radical shift in the regulatory responsibility of existing institutions, the capacity for implementation and the way in which regulatory bodies work together, is crucial to the future success of marine plan implementation and achieving integration between the two planning systems, as well as managing the many other demands and potential conflicts between coastal resource users. Coastal 'grab' (Bavinck, 2017) is a real issue facing many coastal communities which may intensify if blue growth aspirations are to be met, including for example, renewable energy targets from offshore windfarms and aquaculture development in Scotland. Coastal communities on the frontline of climate change impacts - such as sea level rise and increased storminess - require support from the EA and LAs to identify adaptation pathways.

Research Q3 asked '*how can collaborative governance be enhanced?*' Firstly, recognition of the problem needs a higher profile: coasts are at the forefront of change and there needs to be a focus on decision-making across the land-sea interface. Secondly, there is a need to strengthen leadership. Specific recommendations included developing more locally specific planning guidance (e.g. nested coastal plans), better monitoring and science communication, extending MPs constituencies into inshore waters and/or promoting IFCA-style governance for other sectors. Extending MPs' remits into inshore waters could be a useful first step to levering LA engagement in marine plans through resourcing policy officer time to consider land-sea interactions in terrestrial planning. A national coastal strategy could encourage political will and commitment, delivered through nested coastal plans and better resourcing land and marine planners, ideally with a dedicated LA team. This may be resisted by government and industry as 'another layer' of bureaucracy, but the marine planning authorities could develop nested plans (on a voluntary or statutory basis) within regional marine plans as part of their duty to 'seek compatibility'. This would be especially useful for Wales which only has one

national marine plan. Cross-border estuaries such as the Severn and Dee could benefit from stronger management at the ecosystem scale. However, not all coastal challenges are dealt with through the planning systems. Flood and coastal erosion risk management is primarily the responsibility of the EA and LAs, beyond land use development or marine plans. Other policy objectives, for example those surrounding protected area management and fisheries, are resourced by different agencies: Natural England & Defra. Significant interests such as aggregate dredging, energy and ports, are managed by The Crown Estate, Department for Business Enterprise/Trade and Industry with the strong background influence of the Treasury on government leadership. The case for integrated planning and delivery has been made in the recently published Marine Pioneer recommendations, which also recognise the key role of multi-level collaborative governance. Yet the commitment to resourcing it probably has to come from central government, in recognition of the value of investing in longer term partnership approaches. Natural capital accounting is gaining traction and could help recognise and realise this, but is currently lacking clarity over how it will be implemented.

Socio-economic benefits to communities, including employment and wellbeing, are closely linked to the health of the coastal ecosystem and better decision-making. An integrated/ecosystem approach was considered to offer benefits such as reducing conflict, increasing scope for multiple gains and potentially providing more innovation. Several respondents recognised that community 'ownership' engenders stewardship but not necessarily growth, which may inhibit motivations for collective action. This therefore raised further questions about the role of property rights and duties, the responsibilities of institutions towards stewardship and how to enable a paradigm shift from current approaches. Strategic leadership, political will and capacity to support bottom-up approaches appear key to making this happen. Linking mechanisms to drive collaborative coastal governance are considered most important, but research participants made little reference to public bodies' duty to cooperate or their power of competence, which might be used to greater affect.

10.3.10 Summary (Part Two)

The following questions were posed at the beginning of Section 10.3 regarding how to resolve the implementation gap through collaborative governance:

- How to incentivise collaboration through existing/new statutory duties and institutions;
- How to strengthen non-statutory initiatives to support collaboration.

The research showed that to enhance collaboration, stronger capacity and investment is needed in co-ordination and collaborative effort, both within existing institutions (e.g. enabling staff time) to support delivery of their statutory functions, and through sustained investment in longer-term capacity building (non-statutory) networks at the regional and local level (particularly through CEPs, MPPs and IFCAs). The form which these collaborative mechanisms take in order to encourage stewardship at the most appropriate scale, will be addressed in the next section in answer to RQ3 *'How could collaborative governance be enhanced to improve stewardship of UK coastal ecosystems?'*

The discussion will now turn to the final set of results from the Delphi-based process around stewardship and compare them with the literature review of socio-legal options discussed in Chapter 4. This also addresses the outstanding question about whether more legal incentives towards the coast and/or collaborative mechanisms are desirable.

10.4   Route-Map to Enhance Collaborative Governance for Coastal Stewardship (Part Three)

This final section of the discussion will consider participants views on stewardship in relation to the literature and the socio-legal options identified in Chapter 4. This is presented as a route-map, building on how to improve collaborative governance discussed in Part Two, to improve stewardship through participatory engagement mechanisms (PEMs), trusteeship and guardianship.

The literature on collaborative governance and the discussion above, suggested two routes to improvement: collaboration between decision-makers; and connectivity between communities and decision-makers. Collaboration between decision-makers and the mechanisms available to strengthen linkage between organisations delivering the legal and policy framework have been the focus of discussion in Section 10.3 above. Both aspects of collaborative governance should support stewardship, but the focus of this final discussion section is the latter: community engagement with decision-making bodies to generate stewardship. The premise that collaborative governance can support stewardship was discussed in Section 3.5. It raised further questions about the rights and duties of owners who, in this instance, are the regulators and institutions that drive decision-making over resource use because of their responsibilities to implement the law and protect the public interest. Through the socio-legal options (SLOs) described in the literature review, the discussion now turns to the design of the legal and regulatory system *in itself* and how it could be strengthened to encourage stewardship, based on the views of research participants. The discussion proceeds on the

assumption that better governance would give more respect to coastal SES units as asserted in the previous section, with decisions taking more account of the functioning of the natural system as opposed to jurisdictional (spatial and thematic) boundaries. This would stimulate longer term planning as opposed to short term (and reactionary) project objectives. It responds to the call for increasing accountability to stakeholders and updating approaches to resource management to emphasise stewardship (Armitage, Charles and Berkes, 2017).

10.4.1 Perceptions of stewardship and visions for improvement

The term 'stewardship' has not been prominent within the sustainability paradigm despite much investment in participatory engagement, but it is beginning to emerge. When research participants' were asked about the concept of stewardship historical connotations, of looking after/taking care of the earth featured quite highly in the results. There was some reference to commons thinking and generating a sense of ownership (R1 Q9a) with visions of stewardship involving the role of a steward, guardian, local champion or leader. Interestingly, these terms were referred to more often than participation, stakeholder engagement and partnership working (R1, Q10 p.194). This implies an awareness that current 'engagement' mechanisms may be lacking when it comes to generating stewardship action.

The drivers, mechanisms and barriers for stewardship were considered to be dependent upon the approach to governance (R1, Q10), where strong recognition was given to bottom-up initiatives which help to develop a sense of ownership over local resources and drive stewardship (as discussed in the previous Section 10.3). However, participants reported a strong link between the availability of resources and the (political) will to incentivise stewardship. It therefore seems that the existing regulatory approach has tended to create 'managers of the earth' (as asserted by James Lovelock, 1992 – see Section 4.1, p.77) thwarting any inherent (or remaining) human instinct towards the limits of natural resource use. The regulatory approach, serving to balance private property rights, may have hindered the cultivation of local responsibility to connect and conserve resources. The sustainability paradigm has created awareness of duties to future generations, but the governance system and dominant free-market economy does not do enough to encourage people to care for more than their own interests or be answerable to wider society (Lucy and Mitchell, 1996; Worrell and Appleby, 2000). Governance processes and the dominant regulatory regime may have actually undermined the ability of local actors and communities to steward local resources (Bennett *et al.*, 2018).

Stewardship mechanisms

When participants were asked about drivers which could promote stewardship for the coastal ecosystem, they often identified site designations and the framework provided by the High Level Marine Objectives. There was a good level of support for existing mechanisms but a general feeling that more would be needed to promote genuine stewardship beyond the existing regulatory activities. This equates with the assertion by Reid and Nosh (2016) that there is a need to identify where different mechanisms can produce real improvements on the current position. ICZM initiatives which stimulated creation of the existing CEPs were not ranked highly by research participants as stewardship mechanisms (x=3.4/5), suggesting that they are more associated with governance processes than stewardship action. CEPs were established for sustainability purposes, but in an era of *un*sustainable coastal governance, may now be considered limited in their abilities to green the systems of law and governance (Bosselmann, 2016) - recalling that the difference between sustainability and stewardship is the inclusion of the wider public interest and other (non-human) species. As shown in Section 10.3, the capacity of CEPs to fill the governance gap is hindered by the lack of staff capacity to invest in collaborative effort.

Ideas for enabling better coastal stewardship produced many interesting suggestions. Most were top-down ideas associated with the regulatory system (rather than bottom-up) including statutory plans/duties, resolving inter-departmental silo mentality and meeting expectations associated with the Environment Act (2021). These suggestions probably reflect the perspective, experience and knowledge-base of the participants, many of whom were 'experts' from the public sector and NGOs, rather than individuals already working within communities. Never the less, there were many thoughts around encouraging societal/behavioural change, such as a network of local stewards who could offer safe spaces for discussion and act as custodians of natural assets. A particular interest was to further explore the role of a leader or local champion for place-based governance. This equates with the recommendations of Cockburn et al. (2019) that there should be a focus on stewards as agents of change for place-based stewardship. They need to be empowered by funders and policy-makers to perform a *"socio-ecological balancing act"* which brings together stewardship and collaboration (Cockburn, 2018) and builds social capital from participation. Research participants identified recommendations for stewardship which were similar to those for collaborative governance: the need to avoid project funding and empower LAs (and others) to take holistic decisions to support stewardship; encourage joint planning across land and sea, with marine managers more involved with local communities.

The importance of scale to incentivise stewardship

When offered a vision for what better governance of the coast would look like in the future, the highest proportion of comments from research participants (22% *n*=71, R1 Q11) related to the scale of governance, with approximately half of these supporting local community engagement or bottom-up drivers. This finding supports the assertion of authors who claim that engagement should be well matched to temporal and scalar fit (Davidson, 1998); that we should organise society on the basis of natural [territorial] units which people can identify with (Attfield, 2015); and that participation techniques which are well matched to local social-ecological conditions lead to institutional acceptance and 'social fit' (DeCaro and Stokes, 2013).

Participants' visions involved better integrated statutory agencies with stakeholder-led governance structures well supported by them. There would be a clear overarching legal and policy framework that encourages connectivity between terrestrial and marine management. Research participants suggested that a long term approach would be embedded in planning, targeted at a scale that properly integrates land and sea, with planning addressing the mismatch in scale between regional marine plans and local authority plans (i.e. nested coastal plans). Participants cited the possibility for enhancing an ecosystem approach through more place-based governance structures, so that the coast could be managed as a whole, with governance utilising networks designed for the purpose. This further illustrates the value of stronger identification for coastal SES units which could build on the work of existing SMP coastal groups, CEPs and other community initiatives which already recognise social value. Building on collaborative governance at this scale could involve approaches to governance which cross LA and other jurisdictional boundaries (i.e. based on the landscape-scale). Regional marine plan areas are based on large areas which may be convenient for development planning, but are too strategic for coastal communities to associate with. Scale of governance is the key to generating empowerment and agency within local communities to support institutional capital (Bennett et al 2018).

Landscape stewardship for coastal SES units

Participants' ideas on mechanisms to promote coastal stewardship (R3 Q16) included a review of regulatory approaches: strengthening them through national coastal policy; statutory nested coastal plans; net gain commitments; streamlining existing legislation; stronger catchment and coastal co-ordination; empowering LAs; and stronger fisheries management which could be aligned with marine planning (Section 10.3). In the final workshop, these findings led to participants promoting recognition of the sea as a public open space, managed

using 'triple-bottom-line' principles. They proposed the need for a common cross-sectoral vision (beyond austerity) with officials recognising fuzzy institutional boundaries in their remits.

Examples of visionary processes involving good co-ordination at the landscape scale were offered by research participants, such as the Dart Charter which brought Dartmoor National Park together with the Catchment Partnership, South Hams District Council and the AONB Estuary Partnerships. LAs and/or CEPs could work more collaboratively across administrative boundaries with the MMO towards nested coastal plans in a similar manner. Such place-based networks, involving statutory and non-statutory/voluntary partners engaging across boundaries, encourage citizen engagement in knowledge sharing and decision-making. This supports the assertion by Cockburn et.al (2018; 2019) that the landscape scale is a suitable level of analysis and action for stewardship. CEPs are beginning to work more closely with CaBA partnerships, which have extensive experience of working at the landscape scale, but there is still a need to develop theory on collaboration at this scale. More creative approaches to place-based governance may rely less on regulatory approaches and more on market-based or civil society mechanisms and innovations to gain a more holistic and long term approach to engagement.

High consensus amongst research participants proposed *"Governance at a scale that links people's sense of place with the coastal ecosystem."* (R2 Q22 85% *n*=95).

There were reservations about whether people will engage with the scale required to link coastal processes with sense of place when an ecosystem may be much larger than a coastal community. Silbernagel et al (2015) found this to be a limitation where people's sense of obligation to coastal stewardship did not necessarily match scientific evidence. However, as suggested by the Dasgupta review (2021) transformative change is necessary and may be achieved through social embedding (i.e. behaviours based on the knowledge that some people can quickly influence the action of others). People's sense of place will differ in scale depending upon their experiences and outlook, but overall the results suggests that to improve stewardship, there is a need for coastal governance which increases stakeholders and communities understanding of the coastal ecosystem (and their place in it) more than what exists under current arrangements. Understanding the coast as a 'system' is more likely to lead to decisions which work with natural processes and are based on retaining the health of that system. The inherent problem in UK coastal governance is that there is little recognition of the coastal ecosystem function *as a whole* in decision-making. Development decisions are made on a site and project basis and strategic planning falls between terrestrial and marine, lacking a

systems perspective across the land-sea interface. New approaches to embed ecosystem services and natural capital assessments into planning and decision-making to deliver net gain, should help to increase recognition of systems perspectives.

The issue of scale was particularly evident in the suggestion that current marine planning was considered to be the antithesis of a place-based approach, because the large scale of marine plan regions presents a barrier to local community engagement. Effort may be required to raise awareness of the natural ecosystem functions and restore connections between users in communities, which is more challenging at this large scale. When people's understanding (of a coastal ecosystem) connects to and enhances their sense of place, their stewardship action then depends on motivation and capacity (Bennett et al, 2018). The question then becomes 'how' to embrace stewardship action in the governing system.

10.4.2   Building on existing participatory engagement mechanisms

Chapter 4 and the previous discussion section illustrated the existing range of participatory engagement mechanisms (PEMs) which facilitate collaborative governance and potentially support/enable stewardship. The discussion now considers how current practitioners' views as described in the research findings could lead to strengthening PEMs and how socio-legal options associated with trusteeship and guardianship could evolve.

Community voice engaged at an earlier stage of decision-making

Community engagement in decision-making involves multiple approaches and the UK is generally quite inclusive when it comes to public consultation. However, as research participants highlighted, there are too many project-based consultations which are limited to defined timescales, during which it can be challenging to get interests effectively represented. Repeated consultations tend to 'wear-down' communities from ongoing engagement in top-down decision-making, disenfranchising them and having the opposite effect to incentivising stewardship. Constrained project/plan development consultation timelines can lead to a lack of proper community engagement in many decisions and limit input to longer term planning. Strategic consultations can be too 'high-level' with policy and plan formation deemed of limited current relevance to the public. More inclusive mechanisms for engagement are needed, which enable communities to be heard at earlier stages of decision-making, and their views incorporated into strategic planning so that they develop a sense of common ownership over the outcomes. This is more likely to lead to simpler decision-making over specific projects and community 'self-regulation' which can save costly enforcement action. However, the

communication structures/mechanisms to enable early, inclusive and contiguous community engagement are lacking.

Longer term commitment to partnerships and coastal community-based projects/initiatives

Empowering collaborative governance mechanisms with continuity of service and capacity is more likely to engender a sense of stewardship in communities. However, UK coastal governance is littered with a series of short-term projects and partnerships, such as CCTs[149], Landscape Partnerships and coastal project-based initiatives[150]. CEPs have existed in over fifty locations over the last few decades (Figure 3.3 Coastal and estuary partnerships (Coastal Partnerships Network, March 2022)), but there are gaps in coverage and mixed experience of their effectiveness - many rely on inconsistent and inadequate funding. Nevertheless, the collective knowledge and engagement activity of CEPs and initiatives could lead to more stewardship if there was ongoing reliable investment, perhaps along the lines of other partnerships supported by government, such as LEPs and LNPs[151]. Initiated by the 2010-2015 coalition government, these partnerships were encouraged to be self-sustaining strategic partnerships and work with public bodies.

It was recognised that the MMO would work with other Defra delivery bodies to support coastal LNPs "*by sharing MMO strategic priorities for an area with them*" (Defra, 2012 p.5). These partnerships cross administrative and institutional boundaries and the bodies are bound by the duty to co-operate to have regard to their views on strategic planning matters. However, few LEPs and LNPs appear to focus on the coast, therefore incentives may be needed to work with them in coastal areas[152]. Based on the points raised above regarding scale, this

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[149] Coastal Community Teams were an initiative of MHCLG set up in 2015 which led to 146 teams receiving £1.46 million to help unlock barriers to economic development and create sustainable economic growth and jobs. This led to the award of grants to 295 projects across the UK totalling over £174 million through the Coastal Communities Fund/Great British Coast initiative between 2012 and 2020. These innovative investments focused on socio-economic regeneration of coastal communities and Government analysis suggested that for every £1 invested there was potential to create up to £8 to boost coastal economies. The initiative was championed politically by a Coastal Communities Minister (Jake Berry) until mid-2019. MHCLG withdrew support in 2020.

[150] The Coastal Partnerships Network identified over 350 coastal projects/initiatives which seek to improve the coastal environment for people and wildlife, but many are time-limited (Lew, CPN 2020).

[151] The 2010-2015 Coalition Government led the establishment of Local Enterprise Partnerships and Local Nature Partnerships as described in Chapter 3. They demonstrated central Government commitment to support collaborative effort for economic growth and biodiversity, although support to the former (LEPs) continues to be substantially more than the latter (LNPs). In response to the Natural Environment White Paper, WWF-UK summarised their view on the evolving nature of LNPs and LEPs at that time (September 2011) as "*While WWF welcomes the establishment of the Local Nature Partnerships, we have some concerns that the creation of separate bodies to deal with particular local issues (economy, environment) will lead to a siloed approach that does not promote sustainable development at the local level. To be effective, LNPs must be given the same level of support (financial and administrative) and recognition within the planning system as Local Enterprise Partnerships*".

[152] Simon Cripps *pers comm*, (2021) Dorset LNP Chair wrote to Rebecca Pow MP (Defra Environment Minister) asking for clarification of whether Nature Recovery Networks were to include the coast and foreshore, but the response was not definitive. The approach is to be trialled in Cornwall.

would need to be at a more local level to support stewardship and could utilise or connect better with existing CEPs (where they exist).

The political and institutional framework for collaboration over economic and environmental purposes has therefore been generated and is active through the full coverage of LEPs and LNPs. Socio-economic opportunities were stimulated by CCTs for a period of time, however, longer term support to CCTs, LNPs and CEPs is lacking as they rely on short-term funding opportunities and partners for skills, expertise and co-ordination effort - with little ongoing impetus from central government[153]. The growing literature on the value of social networks, bridging organisations, participative and deliberative democracy (Section 4.4.5), suggests that longer term investment in this direction would be valuable.

Putting the coast and the social agenda on an equal partnership footing

The initiatives of three government departments towards supporting collaboration, partnership working, and community engagement have been illustrated: LEPs from BEIS; CCTs from MHCLG; and LNPs and 'CaBA' Catchment Partnerships (via the EA) from Defra. It has been proposed that the *"gap in the overlap"* be fulfilled through 'CoBA' would support CEPs which aim to bring social, economic and environmental objectives together through a neutral platform for collaboration. The duty to co-operate and power of competence, amongst other collaborative governance mechanisms, could be utilised to greater affect by existing institutions.

The research participants' recommendation for a national coastal strategy was to embed 'coast' at the Cabinet Office level in order to integrate across and between government departments to ensure better delivery of existing regulations. At the moment, co-ordination between them appears to be left to the regional level with very little join-up between central government departments. This does little to incentivise collaboration at the local level or across the land-sea interface for the coastal SES. Partnerships established for socio-economic or environmental purposes fail to meet the real challenge of meeting sustainability rather than 'sustainable growth' which is divorced from ecosystem and public health. Compared to public

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[153] The question of scale and coverage may be one of the reasons why Coastal Partnerships have not been extensively recognised by central Government. They are more local than LEPs and LNPs but larger than individual CCTs – equating more to the transient Landscape Partnership projects. The latter were perhaps closest to the remit of Coastal Partnerships, encompassing a broad range of socio-economic interests as well as looking to care for the landscape and biodiversity at the landscape-scale, crossing LA boundaries around clearly recognised landscapes and their nearby communities. The work of CCTs in individual communities has linked in with the work of CEPs at the local level in an ad-hoc manner, not driven by policy or government, but recognised through the voluntary co-ordination effort of the CPN, the Coastal Communities Alliance and LGA Coastal SIG through the 'One-Coast' initiative. The incomplete coverage of CEPs may also present a challenge to central government recognition of their role (see Appendix 7).

bodies operating at the coast (LAs, EA, MMO, IFCAs) and partnerships with 'economic' or 'environmental' purposes (LEPs, LNPs, AONBs), CEPs offer a focus on the land-sea interface and a neutral convening platform to represent public interests informally to decision-makers. They are able to bridge links with and between staff with statutory powers and duties and encourage community engagement in consultations and voluntary management (e.g. beach cleans) – stimulating a 'social' role to care for the coast.

10.4.3 Coastal stewards for place-based collaborative governance (SLO1)

Incentives are needed to encourage collaborative governance across the LSI. The following section describes how the socio-legal options for collaborative governance identified in Chapter 4, could evolve to encourage stewardship based on perspectives offered by the research participants.

Powers, duties and regulators acting in the public interest

Duties of public bodies towards good management of the foreshore (The Crown Estate Act, 1961) and for good governance of our seas (Defra 2009) underpin the assertion that more could be done to enhance collaborative governance for coastal stewardship. There is a lack of clarity over how these duties are delivered due to complexities and uncertainties about what level of stewardship of the resource is in the 'public interest'. This research has highlighted a clear desire to bring the 'top-down' decision-making role of institutions closer together with the bottom-up interests of coastal communities, with the sea considered a public open space which should be managed to meet social, economic and environmental purposes. The current government ambitions for a green recovery and the levelling-up agenda could be supported by partnerships which work across these three pillars of sustainability and foster commons theory and collective action. Representation of the coastal SES system is a little researched topic, but CEPs are relatively unique to the UK and a locally known starting point for people to engage with planners and decision-makers. However, they operate in a poorly sustained vacuum, lacking any strategic government policy or national framework, other than the informal volunteer-led Coastal Partnerships Network.

Regulators have statutory duties towards the public interest but the extent to which the regulators deliver their statutory duties *in the public interest* could be open to question. For example, the aims of the Coastal Concordat are to streamline the licencing process for developers with a single point of contact (avoiding the need to deal with multiple regulators). This is a valid form of 'integration' in a complex space, but such 'streamlining' may compromise opportunities for public engagement in decision-making. Further streamlining

was not well supported by research participants who also posed the question of 'who's not in the room?' which should be asked more frequently.

Fiduciary responsibilities on owners: The Crown Estate and regulatory limitations

An opportunity exists to help resolve challenges across the land-sea interface through stewards, who could take more account of ownership responsibilities. On land the dominant and accepted norm is private ownership, where over one hundred years of planning laws, licencing and regulation have exerted control over resource use and exploitation. At sea - including the foreshore - over half of the resource is (still) largely owned by TCE which has a duty to hold it in trust for the public. It could therefore be argued that there are more opportunities for open access and co-management to generate stewardship. TCE have supported valuable stewardship initiatives such as the Aggregate Levy Sustainability Fund and CCTs through MHCLG. However, the duties vested in the Crown are largely exercised by the regulators which have somewhat divorced decision-making from the fiduciary responsibilities of the state and influenced interpretation of what is in 'the public interest'. In many locations, coastal communities are disenfranchised from decision-making, particularly over nationally significant infrastructure projects where decisions are made by the Secretary of State. They have seen the (accidental) privatisation of resources through the centralised licencing of fisheries, aggregate dredging and coastal developments. Existing regulatory requirements to consult stakeholders/users on a case-by-case basis over planning/development projects and licences can leave a gap in strategic leadership, limiting shared governance which would require a more inclusive approach.

Statutory bodies such as NE and the EA have and continue to actively support an increasing number and variety of partnerships which aim to bring organisations and communities closer together to support management, with CEPs often playing the role of a bridging organisation. They increase understanding and awareness, but as participants and academics have indicated, the short term project approach and limitations on their ability to fully represent different interests, has rendered them weak compared to the power vested in (disjointed) regulatory activity. Collective vision and effort is needed and could come be incentivised by TCE as the main owner of the foreshore, with their legal obligations towards stewardship.

Participants in this research did not substantially recognise the underlying responsibility of TCEs stewardship duty or the government (state's) fiduciary duties to represent the public interest. They did, however, recognise a high level of current interest in governance mechanisms which take account of non-use rights through new policy approaches such as the

Natural Capital Initiative and Defra's 25 YEP. Participants strongly supported action towards a net gain obligation, which is progressing in government policy at the time of writing. This brings with it a sense of collective responsibility and stewardship, but few mechanisms are currently recognised for *how* it will be delivered. If it is placed as an obligation on developers it will further exacerbate the limitations discussed above around top-down approaches to consultation and short-termism[154], lacking placement within the context of a more holistic or 'wholescape' approach to marine management (CaBA, 2022). In addition, as the prevailing political paradigm is still based on private ownership and capitalism (rather than common inheritance and equitable distribution of resources) there are risks that the natural capital approach will embed private property rights more deeply rather than empower collective action. The value of co-management approaches have been recognised by the MMO in their marine pioneer programme. There is therefore a need to harness the ambition for natural capital evaluation and net gain, through governance mechanisms which reduce institutional barriers and reflect non-use value in decision-making (Leonard and Regan, 2019).

To harness this momentum in society and strengthen new approaches to governance, place-based governance is gaining traction and was reflected by participants as a useful way forward to bridge the link between people and ecosystems, land and sea. Yet significant questions remain about *how* to implement the ambition in relation to the existing institutional framework and whether further leverage in law is necessary - existing fiduciary responsibilities are not well understood.

Property owners and staff within regulatory bodies need to be better connected with each other for their powers and duties to serve the public interest. They are 'stewards' over finite resources with a duty of care to future generations. Their obligations could be met more easily if they were to help generate a stronger sense of stewardship amongst those that benefit from the resource and who are well placed to help care for its longevity. Examples of existing coastal governance mechanisms which work *with* the coastal ecosystem and have the potential to generate a stronger sense of ownership, include the coastal groups, where sediment cells are used to assess coastal erosion risk management through Shoreline Management Plans; CEPs facilitating communication networks with non-statutory plans/strategies across locally recognised areas such as estuaries or bays; and CCTs driven by

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[154] The performance of Environmental Impact and Strategic Environmental Assessments (EIA, SEA) does not appear to be enough – perhaps because the work is typically undertaken by consultants on behalf of the developer; perhaps because the criteria are too narrow to consider the impacts on the coast holistically as a SES. Perhaps a coastal-specific form of SEA could aid LSI for marine and terrestrial planning.

local individuals focused on specific restoration projects. However, none of these (or other approaches) carry legal obligations with statutory weight, or even continuation of policy/funding to maintain their momentum. They are advisory, voluntary and informal with greater potential to bring understanding of a coastal ecosystem together with community perspectives, needs and aspirations[155].

As the primary landowner of the foreshore and inshore marine environment/seabed, TCE has stewardship obligations (as discussed), but is rarely a key stakeholder in coastal community deliberations, despite having a country-wide suite of local coastal stewards and substantial coastal property holdings[156]. There is some disconnect between private interests and their property rights (short termism), and the duty on public bodies to represent the (longer term) public interest in decision-making. Embedding greater understanding of coastal ecosystems is a good starting point to generate better stewardship action for communities to engage more actively in decision-making and planning. However, the severity of the problem may require stronger leverage over ownership rights and duties.

Progressing coastal SES units

As discussed, a greater sense of place and connectivity with coastal ecosystems could evolve through recognition of coastal SES units. SES units already exist to a large extent through knowledge of coastal processes with the allocation of sediment cells, if they were combined with knowledge of the socio-economic connections around a coastal area. It is likely that many CEPs, Forums, CCTs and projects have arisen on that (logical) basis, but to improve coastal governance across the country, the identification of coastal SES units could embed a more complete coverage of partnerships which are focused on encouraging collaboration between institutions and with local coastal communities. Such an approach may emerge from the proposition for CoBA, for which a helpful next step would be to map institutional management scales alongside geographically distinct coastal ecosystems. CoBA has illustrated many overlaps in the scale at which institutions are working, but also gaps in the provision of networks that can facilitate communication and collaboration between them across the land-

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[155] When the Environment Agency/Local Authorities (and their consultants) have attempted to suggest shoreline management options which may compromise short-term private and landowner interests (e.g. loss of farmland, business or property relocation) the public bodies have faced an uphill battle: they are starting from a very low base of understanding the threats (from climate change) and connectivity with the ecosystem. There is a gulf between their outlook and the need to take adaptation plans seriously enough to compromise the status quo. This can lead to the emergence of community groups reacting to plans being imposed on them. By way of example, the Gloucestershire Severn Estuary Stakeholder Group emerged from a group of private landowners concerned about loss of their farmland and SMP proposals to re-align/set-back the shoreline. This community-led group has been well facilitated independently of government and engage with the EA, LAs and wider stakeholder interests.

[156] An exception would be in the Isles of Scilly where the Duchy is far more known & communicative at the local level. TCEs portfolio includes substantial coastal property holdings principally agriculture land and property: https://www.thecrownestate.co.uk/our-leadership/people/neil-jacobson/

sea interface. Mapping coastal SES units could lead to acknowledgement of the gaps, overlaps between institutions (formal and informal, statutory and non-statutory) as well as highlighting the potential value in sustained co-ordination effort from the bottom-up. Full coverage of CEPs is offered as a potential solution to meet the aims of the CoBA initiative. It could build on synergies between CEPs and SMP coastal units. The proposition could be taken further through the identification of 'champions' associated with each coastal SES unit to help communicate the ecosystem 'voice'[157]. Estuaries may portray a sense of identity more easily than expansive areas of open coast where there are fewer clear boundaries (e.g. Cornwall[158]) but both would benefit from assessment of the scale at which physical processes align with governance (administrative) boundaries and peoples sense of place in communities.

Step one (SLO1) summary

A role for coastal stewards to champion coastal SES units therefore exists and could be achieved as step 1 of the route-map, founded on the research participants' recommendations to:

i)   formalise connections between and within statutory bodies, by investing in staff capacity for communication, cooperation and collaboration;

ii) sustain longer term finance for collaborative capacity through CEPs and similar initiatives, reducing emphasis on the short term project-based approach;

iii) improve connectivity between top-down and bottom-up approaches through:

- a new national coastal policy/strategy;
- a Minister for the Coast providing leadership;
- nested coastal plans encouraging MMO and LA collaboration;
- co-locating CEPs and CaBA partnerships.

These actions could go a long way to enhance collaborative governance for coastal stewardship. The identification of stewards for coastal SES units would enable stronger association between coastal communities and the natural physical system (based on existing sediment cells and other place-based criteria).

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[157] A helpful example exists in the characterisation of Lyme Bay (a physical unit) as the 'Jurassic Coast' brand which has generated substantial income across Devon and Dorset, or the River Severn Estuary/Mor Hafren (in Welsh) becoming known more simply as the 'Severn Sea' across the devolved boundary.
[158] The Cornish coastal AONB is extensive and previous CEP initiatives for the Fal, Fowey and Camel have waned. An EA funded 'Championing Coastal Coordination' project (2021-22) will trial the CoBA approach to explore the potential need/value of smaller coastal 'units' for governance.

For transformative change there are additional opportunities to build on the powers and duties of the state to act in the long term public interest towards stewardship. To evolve values, build trust, and create an ability to move from adaptive management to adaptive governance (based on the split ladder of participation by Hurlbert and Gupta, 2015 - see Figure 4.2), additional mechanisms may be needed to achieve consensus, self-management and co-ownership to retain/restore ecosystem health. Significant time and effort are required for co-creation and co-delivery to build long term communication networks, build trust and empower place-based governance - which may require some alteration of the structures and institutions of governance. The following section presents step two of a route-map for strengthening existing PEMs and partnerships with 'stewards' supported by trusteeship duties, stimulated by a national obligation for delivery at the local level.

10.4.4 Coastal trustees and engaging the absentee landlord (SLO2)

The need for better legal tools for stewardship has been discussed in relation to public ownership and the limitations of the existing regulatory regime. Trusteeship was presented as an opportunity to strengthen stewardship action through two approaches:

i) charity/company law to give steward's *as trustees* more legal status; and

ii) the public trust doctrine (PTD) to promote stewardship by owners, regulators and trustees.

As was shown in Table 4.1 *Different types of coastal, estuary and marine partnerships and their current legal status.*, there are few CEPs or similar mechanisms which have legal status. Those that do tend to be effective at attracting higher levels and more sustained funding, particularly from the private sector (e.g. Pembrokeshire Coastal Forum[159]). This suggests potential exists for market-based investment whilst ensuring reliable means of engagement (Kelly, 2012). Non-statutory social institutions such as CEPs and similar initiatives could evolve further through charity and/or company law.

Coastal Trustees

Few CEPs have achieved consistent enough support and financial security to evolve towards any formal independent legal (i.e. charity) status[160]. Exceptions exist including the Pembrokeshire Coastal Forum, the Solway Firth Partnership and Thames Estuary Partnership

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[159] Pembrokeshire Coastal Forums budget is substantially higher than any other CEP according to research conducted in 2018-19 by the author, due to close alignment with the renewables sector.

[160] Many Catchment Partnerships and others have, through the support of an umbrella body such as The Rivers Trust or The Wildlife Trust for example supported by annual grants from the EA to support WFD delivery.

which have charitable status, and in some cases parallel companies (Table 4.1). Potential exists to utilise charity law to expand this approach and meet the research participants' recommendations to improve connectivity between top-down and bottom-up approaches. Greater collaboration between institutions and coastal communities could be achieved through furthering the role of coastal trustees, strengthening the position of individuals involved in existing or new CEPs, CCTs or other engagement/facilitation mechanisms for coastal SES units.

A role for coastal trustees to champion coastal SES units could be achieved as step 2 of the route-map, building on the research participant's recommendations, to:

- Create a network of local stewards;
- Drive regulation in line with bottom-up needs;
- Fulfil a statutory duty towards environmental net gain.

CEP steering group representatives contain a combination of individual experts and statutory advisors who could help to strengthen and secure their role by establishing more formal trustee status. Experience from AONB partnerships, CaBA partnerships and other charities incorporated as Charitable Incorporated Organisations and/or Charitable Incorporated Companies could be utilised, particularly where this status levers opportunities to attract more sustainable finance. Precedence has been set by Rivers Trusts which establish their own Trustees of Charities (and Directors of linked Companies) to oversee a catchment. They facilitate communication between stakeholders and engage citizens in monitoring and project work which raises the profile of the river catchment *as a whole*, engendering a stronger sense of collaboration and stewardship. The model of IFCAs is also relevant where voluntary representatives from the community are nominated and appointed by the MMO to sit alongside local councillors and officers in joint committees, but these are typically at a larger scale than CEPs. Individual trustees obligated by the Charities Commission, would bring a soft legal obligation to existing informal arrangements, building on existing mechanisms to provide more continuity and capacity.

Engaging the absentee landlord through the public trust doctrine

As the major landowner of the foreshore and inshore marine environment, TCE role seems somehow lacking – particularly at the local level. TCE have property rights which enable significant revenue generation from coastal landholdings and the licencing of aggregate dredging, offshore energy installations (amongst others). The extent to which the revenue generates benefits *in the public* interest may be questioned. TCE duty towards the public trust

(explored in Chapter 4) and origins of the public trust doctrine suggest it may apply to existing stewardship obligations. TCE could be more actively involved in building on the existing socio-legal and institutional framework, the duty to cooperate, and voluntary efforts of CE Ps, CCTs and similar community groups to further their stewardship duties at a scale that links people's sense of place with the coastal ecosystem[161]. Existing CEPs and CCTs are already working at a scale which could strengthen people's sense of place with the coastal ecosystem, but their efforts require stronger drivers to lever additional staff capacity to improve collaboration between existing institutions, and strengthen linkages between them and coastal communities. TCE would have the clout to re-inforce or re-address the duties on regulatory bodies to better represent the *long term* public interest at a meaningful scale.

Further to strengthening the role of volunteers as trustees (above), investment could be levered through application of the public trust doctrine to the duties of TCE to help drive this approach. It has the potential to make TCE less of an absentee landlord and place its stewardship obligations more directly at the heart of local coastal governance. It could re-address and renew current legislation to guide and monitor existing trustees (e.g. in TCE) and secure their duty to act in good faith through the government obligations which are tied to TCEs fiduciary 'trust' responsibilities. The PTD may require case law to prove its application, but could help to conclusively decide the nature and extent of public rights over the foreshore of England and Wales. It would enable the coast to be held in trust through guiding principles for management, possibly with a nominated tribunal and appeal options. The PTD offers an opportunity to inject fiduciary duties into government action with the courts stepping up to confirm whether the doctrine (still) exists in common law and whether it could help to over-ride some of the complexity that has arisen from so much environmental regulation by increasing inclusiveness (Brewer and Libecap, 2009; Weston and Bollier, 2013; Soliman, 2014b; Wood, 2014). The PTD could then be embellished through an Act of Parliament or revisions to The Crown Estate Act (1961). As discussed in Section 4.6, this offers innovation which could give the commons approach real standing in law (Bollier, 2014) with coastal stewards facilitating collaboration, backed by coastal trusts and trustees fulfilling legal recognition of the PTD.

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[161] When regional government in England was abolished, Pickles (2010) said "Citizens across England identify with their county, their city, their town, their borough and their neighbourhood". In a similar vein, coastal communities may identify more with their local (coastal) ecosystem to give them a sense of place (e.g. bay/estuary).

Step two of the route-map would increase the status of trustees in charity/company law (as recommended by Rees *et.al*[162]). Evidence is emerging of how this could give 'status' to natural ecosystems in local decision-making, such as in North Devon where the Marine Pioneer programme recommendations supported by UNESCO Biosphere Reserve which has trust status with an active set of trustees. A local stewardship council has also been established to advocate and implement the newly acquired world surfing reserve[163]. The creation (or furtherance) of coastal trusts could help to fulfil PTD obligations**.**

Step Two (SLO2) Summary

The evolution of coastal stewards and trustees involved in steps 1 and 2 can be evidenced in current practice. However, application of the PTD would require substantial legal scrutiny based on an interpretation of common law, case law and international law. The PTD was not recognised by research participants, but the role of TCE and its stewardship obligations were identified. A notable risk involved in pursuit of the PTD is how the courts or new legislation would define public interest/benefit and whether it would secure the difference between sustainability and stewardship (Section 4.5.3). We now turn to step 3 of the route-map which could build on or evolve separately from step 2.

10.4.5   Coastal guardians and a journey for wild law (SLO3)

Legal standing was described in Chapter 4 to illustrate how a coastal ecosystem could gain legal personality. It could lever support for existing formal and informal governance arrangements, to build on mechanisms which help to reflect the long term public interest and that of the functioning ecosystem. Research participants expressed strong consensus over identifying who is 'not in the room' when decisions are taken and it could be argued that an answer to this question could be the ecosystem *itself*. In R1, research participants considered a legal duty towards stewardship as the third major driver (after approach to governance and incentive), based on a perception that legislative characteristics to drive stewardship could include a strong and clear framework (as well as) local codes or byelaws with strong backing. Legal duties to date have been based around the regulatory framework, the complexity of which has been highlighted as a barrier to stewardship. The Marine Acts provided new legal duties through the designation of Marine Protected Areas, which have been a major focus for the NGO community over the past decade, but linking this with community stewardship is

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[162] As recommended by the recent Natural Course initiative (see Rees et al 2021).
[163] Save the Waves Coalition: https://www.savethewaves.org/north-devon/ (accessed 12.02.2022)

proving challenging. Coastal communities don't necessarily understand the importance of marine ecosystems or movement of sediment as fundamental to future ecosystem health.

Regarding a guardianship approach, Stone (1972; 1999) suggested that there will be resistance to giving a 'thing' rights (i.e. natural objects or the ocean), until it can be seen and valued for itself. In recent years, modern assessment tools such as EIA, SEA, ecosystem services and natural capital accounting, are used to represent the value of natural resources in decision-making and could lead to more claims (in court). However, even with these tools, it is still likely that people will favour the short term interests of the human individual, development benefits or community over the long term interests of an ecosystem. A body of common law and/or statute law may be needed to give the ecosystem a stronger voice. Combined with trusteeship, coastal community spokespersons could represent a coastal SES unit's legal personality or nominate a legally-appointed guardian.

Building on the trustees of a third sector engagement initiative such as a catchment (CaBA) or coastal partnership (CEP) - as in SLO2 - could provide the foundations for guardianship by the partnership *being* the appointed guardian. These partnerships bring together and share understanding of the duties of different regulatory bodies; consult industry and society about their needs and desires; and then have a responsibility to take the longer term view based on the knowledge of the ecosystem they represent. They could make governance more co-ordinated, effective and accountable and offer a way of giving the environment more legal standing through the backup role of the courts. Guardianship and wild law offers a route that could build on mechanisms which help to reflect the long term public interest and avoid the governance gap between our management of land and sea. The Delphi-based survey results showed that current practitioners recognise the value of stewards and champions - and the role of a guardian was mentioned by a small number of participants. However, few current coastal 'experts' are likely to be familiar with wild law (Cullinan, 2011) or any potential mechanism for its implementation as proposed here.

Visualising future scenarios for guardianship

Defining a coastal SES unit upon which a legal personality could be bestowed will be challenging. Lawyers are likely to require distinct boundaries rather than fuzzy boundaries, which are harder to define along the coast than for a river basin watershed. However, trustees of CEPs would make a good starting point to represent the coastal SES unit and judge the extent of the 'boundary' on an issue by issue basis. The definition of coastal sediment cells for SMPs and coastal groups across England could form the basis of future (legal) interpretation.

A precedence of incentivising private companies towards stewardship has been set through the water companies for rivers and catchments (OFWAT), which suggests a similar approach could be taken to regulating and incentivising stewardship of sediment (e.g. OFSED) and provide the foundations for coastal protection. The evolution of the CoBA may help to define the basis upon which coastal SES units, trustees and legal personality could emerge. Progress of the localism agenda and the example from Tollesbury, Essex where a Parish Council extended its neighbourhood plan onto the foreshore, indicate assertive community efforts to take ownership. If LAs funding continues to be squeezed and they are not empowered to be more assertive in marine planning, coastal communities are likely to seek alternative mechanisms towards self-empowerment. This may enable re-assessment of the boundaries for governance, enabling them to be more 'fuzzy' and based on coastal SES units which would join more easily with catchment co-ordination. In the marine environment, the MMO could link inshore fisheries management into the marine plan process with IFCAs (in England) becoming marine plan implementation bodies at the local level. In Scotland the existing MPPs could take on inshore fisheries management responsibilities utilising experience of the IFCA model. In Wales and NI new, coastal SES units could become the basis for integrated and more devolved governance nested within their national marine plan and spatial strategies.

Step Three (SLO3) Summary

These research findings have illustrated a potential route to foster stewardship through building on voluntary connections between and within statutory bodies through PEMs (SLO 1); to strengthening trusteeship duties through charity/company law and the fiduciary responsibilities of the state based on the PTD (SLO 2); and to further these models to a scenario where a coastal SES unit would be represented by guardians who have legal personality (SLO3). Guardianship could effectively give legal underpinning to the voluntary approach which could increase trust and accountability in communities, leading to stewardship action which has the potential to reduce costly regulation and enforcement. It would evolve emphasis from implementing regulatory powers towards the duties of owners (including the state).

10.5   Route-Map Summary

Collaborative governance mechanisms are proposed to respond to the demand for adaptive and place-based governance. With increasing recognition that there needs to be more focus on the estuarine and coastal environment for flood and coastal erosion risk management and

marine planning, coastal SES units could emerge from the CoBA proposition[164]. As shown in Figure 10.3 Collaborative governance framework and route-map for coastal stewardship., the research recommendations propose a strengthened approach to coastal governance with new institutional collaboration mechanisms (Column A), complemented by a socio-legal route-map for stewardship which builds on existing participatory engagement mechanisms (Column B). Existing CEPs and joint committees provide a strong starting point for recognising coastal SES units and coastal stewards, from which civil society could more strongly utilise trusteeship duties and assert guardianship rights. It is proposed that coastal assemblies would embody the recommendations from this research, providing a leadership hub through which investment in collaborative governance could be sustained, at a scale which brings coastal communities and ecosystem functions together.
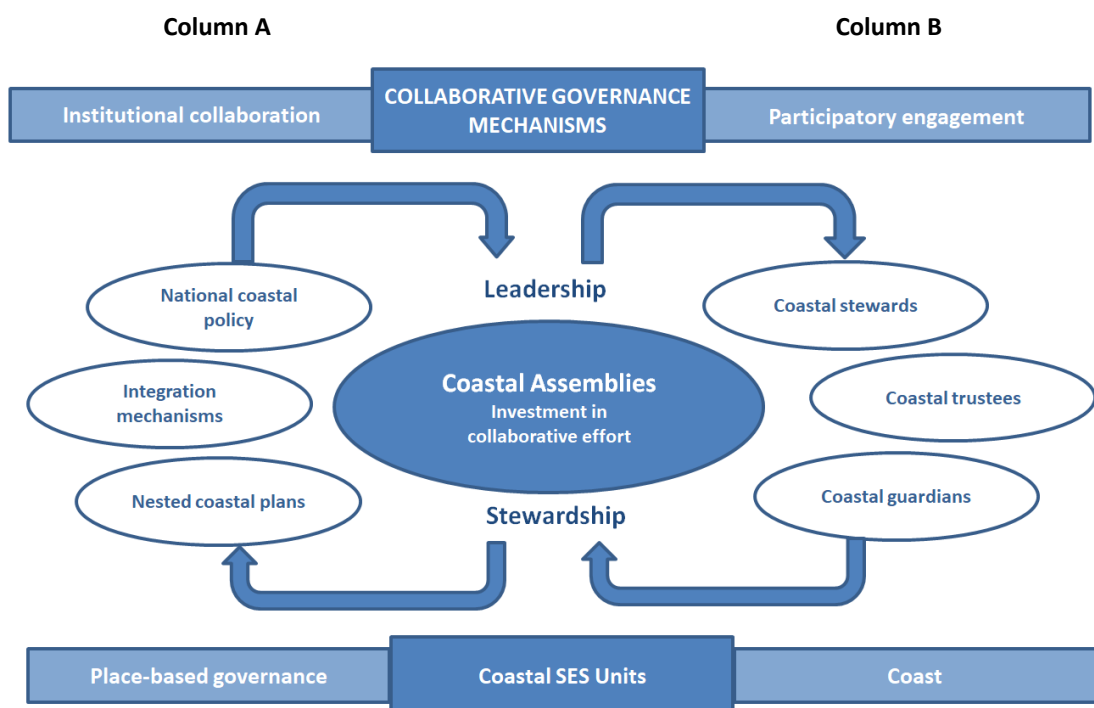
Figure 10.3 Collaborative governance framework and route-map for coastal stewardship.

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[164] These assertions have been forthcoming through personal communications with CoBA committee members during 2020-2022, including Damian Crilly (EA) and Aisling Lannin (MMO).

10.6 Critique of the Research Method

This research set out to identify future direction for coastal governance utilising the insights gained from experts from a wide range of perspectives. Based on pre-existing knowledge of the field and evidence of the complexity inherent in our approach to coastal governance, a Delphi-based method was considered appropriate, due to its ability to identify consensus and its forecasting quality. Response levels were high and remained strong through three online surveys and the workshop. This section critiques the research strategy and method and presents some perceived limitations surrounding the results. It also highlights validation procedures used to mitigate them. Finally, a perspective on the potential application of the Delphi-based method for further research in the growing field of marine social science is offered.

10.6.1 Data Retrieval and Analysis

The high recruitment into R1 enabled broad representation of participants' perspectives and a strong baseline for later interrogation and data retrieval. However, a key learning from the survey design was the use of multiple open text boxes in R1. The 168 extensive responses resulted in a prolonged period of analysis at the outset of the Delphi-based process and delayed the planned timeline. The high response also limited depth of engagement with individual participants' perspectives, but the opportunity to evidence strong consensus from a high number of participants, was considered most valuable to inform future direction. There was a steep learning curve associated with the use of multiple software platforms to handle the large amount of data, which also slowed down the iterative aspect of the Delphi-based process. This might have impacted the drop-off rate, but due to the high initial response and >50% retention through all three rounds, was not considered to limit the overall nature of the results.

10.6.2 Survey and workshop design limitations

The survey structure may have influenced some of the participants' answers due to the following:

- Offering a definition of collaborative governance may have focused participants responses on certain aspects of governance (i.e. co-operation, communication) but definition was offered to encourage deeper thinking along these lines rather than more diverse interpretations of governance (e.g. multi-level, network, participatory).

- The R1 vision question followed the stewardship section so may have influenced the high proportion of comments around scale, as half referred to local community engagement or bottom-up drivers.
- There was limited feedback from the verification steps: reports of the results were provided after each round to enable feedback for input to the next round of question design, but experienced limited take-up by participants.

The workshop involved a sub-set of the research participants but could have been opened out for a wider post-group consensus stage by inviting a 'fresh' perspective on the outcomes of the Delphi-based process and its additional validation.

10.6.3 Straddling qualitative and quantitative methods

Research which straddles methodological approaches (qualitative to quantitative methods) doesn't have a simple 'home' for ease of comparison with as many other studies, but it has the advantage of exploring participants' perspectives in different ways. This aspect of the Delphi-based method was helpful as participants were able to express themselves fully, before being asked to consider more concretely their strength of opinion on a narrower set of ideas. The method allowed the inquiry to be steered towards areas of most interest from the R1 results and the literature (e.g. the role of a leader/local champion to drive stewardship), to explore whether consensus could be found through the iterative approach.

10.6.4 Consensus vs dissensus

Following R2, an enthusiastic participant suggested that identifying the dissensus amongst the participants could be more interesting than firming up areas of consensus. A policy Delphi-based approach would have focused more on dissensus and probably revealed some very interesting results. However, it was perceived at the outset of the research (based on ICZM practitioner experience) that there were a very wide range of views which presented a barrier to future direction around coastal governance and a lack of policy for the coast (with ICZM having stalled). This research therefore set out with a clear intention to find future direction for coastal governance upon which expert could agree, with the aim of making positive recommendations to government. The Delphi-based method was chosen specifically to identify consensus 'beyond the researcher' due to the risk of bias identified at the outset.

10.6.5 Participants perspectives

By seeking consensus through the Delphi-based method, less attention was given to drawing out differences between participants' perspectives. The large dataset served to illustrate a

broad range of different perspectives based on participants' roles, interests, scale and sector engagement (rather than demographics). These participant attributes indicated the potential for bias in the data and the result was that more participants were obtained from government, academia and conservation sectors, with fewer from industry/private sector or communities.

The number of participants in each category was not high enough to generate statistical significance and justify the use of inferential statistics, therefore the analysis was limited to descriptive statistics qualified by an overall awareness of the potential bias in the dataset. This was not considered a substantial weakness in the results since the sectors most represented were more likely to offer expertise associated with driving collaborative governance (i.e. public sector). The local levels of coastal community representation presented more of a weakness when seeking views on stewardship potential from the 'bottom-up' (but as discussed, stewardship obligations also rest with owners and the state from the 'top-down'). These limitations were balanced by interrogating the data by participants attributes and using occasional quotes from R1 to highlight any key differences in perspectives. There is further scope for thematic analysis by participants' role, interest, scale and sector, but additional research would be needed to validate the results statistically. Overall the value of obtaining consensus for future direction with a wide range of participants was deemed to be a higher priority than exploring differences between sub-groups of participants within the dataset.

10.6.6 Researcher positionality

As a mature student entering research following direct involvement in the formation of coastal and marine legislation, policy and practice, the risk of researcher bias was identified at the outset and informed the choice of method. A Delphi-based approach enabled the research to be conducted without direct contact with known individuals. A small team of analysts could have helped reduce risk of bias further, but was not appropriate for a PhD study. The chosen methods of analysis enabled the anonymous data to be treated evenly. Finally, conducting a socio-legal inquiry from the background of a geographer meant that familiarity with the legal system was part of the PhD journey and there were limitations on the legal interpretation (i.e. extensive use of case law).

10.6.7 Validation

Limitations around the chosen method have been identified above. In relation to the Delphi-based process, validation is an inherent part of the research method due to the iterative surveys and evolution of the survey results from qualitative to quantitative data. However, Delphi has been criticised in the literature for several reasons. Potential weaknesses may

include validity of the 'experts' through participant recruitment, researcher-led misinterpretation of the results and concerns about driving towards consensus (Hill and Fowles, 1975; de Loe, 1995; Rowe and Wright, 2011). Bailey (2012) identified ten common criticisms of Delphi in the literature, for which mitigating actions were employed early on in this research, to avoid or minimise the risk of this affecting its integrity, as illustrated in Table 10.2.

Table 10.2 Limitations of the Delphi method and mitigations employed to minimise weaknesses.

Limitations/Weakness (Bailey, 2012)	Risk rating	Mitigating Action
Focus on consensus. Debates about real consensus or whether participants' conform.	L	Survey design led by participants' responses to R1. Inductive coding and emergence of themes re-tested with participants in R1 and R2. Only the drop-off rate (53%) can indicate whether participants' are uncomfortable with the risk of 'conforming.
Number of participants' limiting.	M	Large number of experts invited and high response rate obtained. However, this caused different challenges as the quantity of data prolonged the analysis.
Breadth and range of expertise could be too narrow.	M	Large number of experts invited at the outset. R1 question on number of years' experience and frequency of working at the coast led to 3 participants being excluded from further participation. R1 questions on interests at different scales and sectors captured participants' perspectives, from which they selected one scale and sector in R2 to ensure a wide range was captured and potential bias in the data reported.
Online engagement (remote) limits ability for researcher to look deeper at the problem.	M	Anonymity was important for this research to reduce researcher bias. In-person workshop discussions offered deeper insights for the researcher and learning between the participants.
Retaining participants.	M	Higher recruitment for R1 reduced the risk of low participation (>50% were retained).
Clarity of questions.	M	Piloting at each round, including the workshop.
Quality of feedback and its interpretation.	H	Summary reports between every round invited feedback which was recorded and informed the design of the next round.
Statistical and sampling deficiencies.	M	Training courses and independent support in NVivo and SPSS software. Non-reporting of quantitative results by participant attribute values was due to the inadequate sample size per scale & sector for statistical significance.
Timescale required.	H	Most Delphi processes take a few months. This research took 12 months due to the large number of participants (inductive approach and more data), but ongoing participation was adequate.

The evolution from qualitative to quantitative data enabled a wide range of ideas to be gathered, tested and reported with certainty. A consensus level was established and exceeded in most cases, therefore the results focused mainly on the highest levels of consensus (over 80% agreement). In addition, for R3 greater emphasis was given in the discussion of the results to the areas where there was strongest agreement and least disagreement. The R3 survey was called a 'verification step' as the questions were largely the same as R2 and therefore the degree of response stability between R2 and R3 was high. In addition to testing the results through iterative reports, the final results were provided to the R3 participants to reflect on in advance of the workshop.

Overall, Delphi has had limited application as a method to explore coastal/marine problems involving a wide range of experts, therefore this research offered an innovative and explorative look at how suitable the method worked in this context. The high initial response rate and good retention of participants over the prolonged survey period, suggests the method was well received and has potential for further application to marine social science research.

10.7   Chapter Summary

This research brought together a socio-legal investigation with primary research involving practitioners, to inform future direction for coastal governance in the UK. The results of these two approaches were combined in the discussion to show that there is cause to renew national coastal policy and introduce nested coastal plans which would provide leadership from the national level. In turn, this would enable investment in collaborative governance at the regional and local levels. Existing delivery mechanisms including TCEs stewardship duties, CEPs and joint committees, could be built upon to strengthen the role of stewards, supported by trustees and possibly guardians of coastal SES units. At this scale, coastal communities can more easily connect with decision-makers across the coast, generating stewardship through their sense of place.

11 CONCLUSION

The overall aim of this research was to investigate the socio-legal context and identify collaborative governance mechanisms which could improve stewardship of the UK coast. The aim was to be addressed through three research questions and four objectives, which are concluded in this chapter.

The first objective was to identify through a review of literature, socio-legal options which could encourage stewardship. The context for coastal governance in the UK (Chapter 2) highlighted the value of coastal resources and the complex governance arrangements, suggesting that the coast required a socio-ecological systems approach to management. To overcome the differences in planning and management across the land-sea interface, the growing field of collaborative governance literature was shown to be relevant (Chapter 3). Through a socio-legal approach to the review of literature and current practice, the current regulatory context and institutional framework were interrogated to consider whether underlying property rights and duties encourage stewardship to meet the long term public interest. Options for furthering collaborative governance to meet this challenge were explored, based on the existing legal, regulatory, policy and planning tools, and participatory engagement mechanisms. Socio-legal options which could enhance collaborative governance for coastal stewardship were identified, building on existing mechanisms with coastal stewards, plus stronger adoption of trusteeship and guardianship opportunities (Chapter 4). This answered the first research question '*What socio-legal options could lead to better stewardship*' (RQ1)?

The second objective was to critically assess collaborative governance frameworks for the coast through primary research and ask '*which frameworks support collaboration for the governance of coastal ecosystems*' (RQ2). A Delphi-based method was adopted due to its core purposes of forecasting future direction, engaging 'experts' in an anonymous dialogue and seeking consensus through iterative surveys (Chapter 5). Through a year-long iterative engagement process, 168 research participants were engaged with over 50% (*n*=89) retained through three online surveys. A large amount of qualitative data was analysed and reported back to the participant's, and further questions lead to quantitative results to clarify degrees of consensus by the end of the process.

Research participants acknowledged the value, complexity and need to improve coastal governance, mainly through approaches that bring people together and facilitate linkages between top-down and bottom-up approaches. A stronger and clearer national framework

was identified as necessary to drive bottom-up initiatives and offer leadership. This could be achieved by facilitating networks for people to engage with, thereby supporting statutory approaches, because clarity and understanding of organisations roles and responsibilities is needed to link services and co-ordinate management responsibilities. Although collaboration is not considered to be a core part of the statutory remit of existing organisations, it was perceived to be embedded in their work, with many research participants actively engaged in collaboration over policy design and delivery from the national to local levels. However, challenges exist in the lack of staff capacity as many have no formal remit to do so, especially when compared to their regulatory duties, therefore continuity and commitment is often compromised. A long term (as opposed to project-based) approach is needed which recognises the efficiencies and benefits to be gained from collaborative approaches. Consistent collaborative effort for maximum gain would require more leadership from the national as well as local level. This could be achieved through a 'commons approach' with co-ownership models at the local scale to drive political will and policy incentives. The creation of a single overview role for coastal matters at the national level was considered helpful to divest more responsibility from higher to lower tiers of government and drive investment in collaborative effort. It could endorse and strengthen the efforts of partnership approaches which are carrying out valuable cross-sector convening roles at the local community/ecosystem scale to fill the collaboration 'gap'. There remained some divergence of opinion about the strength and effectiveness of legal versus voluntary incentives to fulfil the potential.

Expert opinion about the role of existing institutions and marine/terrestrial planning informed the third research question (RQ3) by testing the results and identifying implementation actions. A workshop served to help validate the results of the Delphi-based survey process and identify implementation actions. Participants suggested that the regulatory framework could be strengthened through a review of national coastal policy which considered the need for statutory coastal plans, streamlining existing legislation and implementing a statutory duty towards environmental net gain for public benefit. This could be delivered through nested plans overseen by place-based partnerships which also join up coastal and catchment co-ordination. Further efforts to empower local authorities in this process may be needed to fill the democratic deficit that is perceived with national or regional marine plans. The nested coastal plans with associated local governance could play a stronger role towards incentivising stewardship through knowledge, skills and education, building trust and finding more sustainable finance for longer-term investment in communication and collaboration effort. Learning from the experience of Marine Planning Partnerships in Scotland would be useful to this end. In addition, for both Scotland and the rest of the UK, the governance of IFCAs offers

strength, in bringing together local and national perspectives within a more formal governance framework. This model could also be built upon in order to bring the implementation of marine plans together with fisheries management. The results from the Delphi-based process culminated in observations around the need for dedicated investment in longer-term collaborative mechanisms and to ask 'who's not in the room' when decisions are made.

The final and fourth objective was to explore the participants' recommendations (from objectives 2 and 3) and compare them with the literature (from objective 1), in particular the socio-legal options identified in the review of literature (Chapter 4). Utilising levers such as the duty to cooperate, company and charity law could be used to strengthen place-based partnerships. They could lend support to achieving nested coastal plans with increased accountability through governance at the local level. In turn this would promote stewardship as it levered greater capacity to fill the governance gap through institutional collaboration and community engagement over a coastal socio-ecological system unit. Few participants recognised the evolution of local CEPs from voluntary networks/committees into registered charities/companies, utilising the role of trustees to greater affect. This was considered to have further potential, particularly to help attract longer-term finance and continuity through more formal recognition of their status, partners and trustees roles. Some participants recognised the role of individuals as potential stewards and even guardians, but specific ideas on how to strengthen their facilitation role were not forthcoming, therefore no consensus could be offered. However, bringing the Delphi-based survey results together with the literature offers a theoretical route-map to enhance collaborative governance for coastal stewardship.

It was proposed that less well-tested opportunities to promote stewardship could exist through addressing legal principles: harnessing the public trust doctrine and/or guardianship based on the evolution of wild law. Although current use of the stewardship concept in the UK is ad-hoc, the emergence of biocultural rights in international law, with communities utilising stewardship as the foundation for ownership rights over their lands (and foreshore) exemplifies the role of the state being a guardian of the public trust. The public trust doctrine combined with charity law could strengthen the role of existing place-based partnerships for coastal ecosystems. Further, emerging jurisprudence which gives legal standing to rivers could evolve for coastal ecosystems with nominated guardians able to bring more weight behind collaborative governance and encourage stewardship. Finally, it was proposed that coastal assemblies could embody the essence of future direction elaborated in the thesis.

12   RECOMMENDATIONS

This research identified a collaborative governance framework and routemap towards coastal stewardship. Overall recommendations are now made regarding legislation, regulation, policy, planning, institutional and voluntary approaches to strengthen coastal governance by building leadership and increasing investment in collaborative effort across coastal SES units. It is then followed by specific recommendations towards government, existing public bodies, their policy-makers and practitioners, plus areas for further research. These recommendations identify how existing (and new) place-based local delivery networks could be improved to support collaborative governance. They would utilise existing obligations to stewardship and further trusteeship models, thereby strengthening the legal governance framework towards a guardianship approach.

12.1   Overall Recommendations

The overall recommendations for each aspect of governance discussed in the thesis are shown in Table 12.1.

Table 12.1 Overview of recommendations for legislation, regulation, policy, planning, institutions and voluntary initiatives

RECOMMENDATIONS	
Legislation	Expand the scope of common law via trusteeship, which could provide the foundations for guardianship approaches.
Regulation	Strengthen leadership, integration and linkages between organisations building on collaborative governance mechanisms such as the duty to cooperate and power of competence.
Policy	New national coastal strategy supporting coastal SES units.
Planning	Nested coastal plans with democratic accountability.
Institutions	Legitimise staff capacity to invest in collaborative effort. Create a single overview role for coastal matters to increase clarity and understanding of roles and responsibilities.
Voluntary initiatives	Embed collaboration between organisations and improve engagement in decision-making, by strengthening long term investment in joint committees and partnerships.

12.2   Specific Recommendations

The following recommendations are made towards specific government departments, existing public bodies, their policy-makers and practitioners.

12.2.1 The Crown Estate

TCE as primary owner of the foreshore are at a pivotal junction between the role of central government departments and public bodies fulfilling their regulatory duties, and societal obligations towards stewardship which should strive to inovlve coastal communities in decision-making. Proving the application of the Public Trust Doctrine in UK through case law could lever TCE and other foreshore owners, into being a more active steward of the coast. This could bring more of an overview and leadership role to increase implementation capacity for coastal governance with the prime objective of promoting better stewardship, which is within their existing duties. This will be increasingly important to enable coastal communities to harness socio-economic benefits from 'blue growth' developments without compromising the very environment upon which their health and livelihoods depend. It is recommended that the participants observation about who's 'not in the room' be considered in terms of TCE representation in local decision making.

12.2.2 Central Government

Separate legislation and policy siloes exacerbate conflicts of interest at the local level. Stronger leadership for coastal policy is needed between government departments – in particular, Defra and MHCLG where there is a history of environmental and social policy towards the coast, but integrated delivery appears minimal. The lever for this probably has to come from the Treasury, therefore if natural capital accounting and environmental net gain are mainstreamed into policy, there is an opportunity this will bring together the policy agenda's of these two key departments. If coastal SES units were recognised as part of this accounting process, it would go a long way to supporting the ecosystem approach.

12.2.3 Public Bodies

As the regulators providing the conduit between central government legislation and policy delivery, the role of the MMO, EA and NE are particularly important to strengthen collaborative governance and maximise efficiencies in policy delivery.

Marine Management Organisation

As the first set of marine plans have been adopted and implemented and marine planning enters its second cycle, the opportunity exists to focus more on the land-sea interface. The scale for nested coastal plans should be based on coastal SES units which link sediment cells and community perspectives. They could build on existing voluntary coastal plans and partnerships (where they exist) to offer statutory guidance. They could help to fill the

collaboration gap and need for democratic accountability in marine planning. Lessons should be drawn from the Marine Planning Partnerships in Scotland where local CEPs have already been utilised as a platform to increase engagement in marine planning.

The MMO's marine licencing processes have recently been under review with new momentum behind the Coastal Concordat encouraging all LAs to sign-up. This needs to be taken a step further to ensure that licencing applications/development proposals are not only streamlined for developers and regulators, but effective mechanisms are found to raise awareness of how coastal communties can engage meaningfully in strategic planning and licencing decisions across the land-sea interface. This should help to fulfill the democratic deficit reported in marine planning and licencing.

Environment Agency & Natural England

Mandating staff to actively engage in coastal issues through local CEPs, LEPs, LNPs, as well as IFCAs and the marine plan process should be further encouraged, despite austerity measures appearing to have led to a focus on regulatory duties and specific development consents and projects. Further evidence and recognition of the value for money gained through collaborative effort, would help to justify the staff capacity and could be achieved through giving more prominence to the duty to co-operate. If coastal SES units were to gain recognition, statutory advice relating to specific projects and developments could better reflect the impact on the wider coastal ecosystem and coastal communities. The EAs flood and coastal erosion risk management strategy and NEs role to drive nature recovery networks, are good examples of collaboration utilising an ecosystem approach.

12.2.4 Local Authorities

LAs and the MMO need stronger collaboration to better connect terestrial and marine planning, ideally through nested and statutory coastal plans as recommended through this research. The strength of the duty to co-operate and power of competence could be reviewed and harnessed to encourage collaboration. With decades of planning experience including coastal policy guidance some thirty years ago, LAs role in raising coastal community awareness and engagemnet in stewardship is key.

Coastal SES units would build on the scale of collaboration pioneered by CEPs, which are often hosted by LAs, to work across local authority boundaries. Some recognition of this scale of collaboration through the duty to co-operate and/or national coastal policy/strategy would be helpful. It would also encourage stronger collaboration between LAs and other public bodies (in particular EA & NE). LAs role in relation to LEPs and LNPs may require some resolution to

avoid the perception of duplication. The case for focusing on the land-sea interface as a 'unit' in itself has been made through this research and would require further boundary review.

12.2.5 Inshore Fisheries and Conservation Authorities

IFCA committee representation provides a leading example of how to bring LAs and independent experts together in new collaborative governance arrangements. However IFCAs remit is limited to fisheries and conservation. Their governance model could be applied to wider interests in the coastal/inshore marine environment including clarity over their conservation role (beyond fisheries) such as towards recreational management. However, this is likely to be resisted due to the tight resourcing of some IFCAs and the need to resolve existing challenges with fisheries managemet, particularly post-Brexit. Therefore current recommendations need to be limted to learning from this govenane structure for the benefit of CEPs; comparing it with experience of other similar committeess such as the RFCCs and SMP coastal groups. In time, the role of CEPs could be merged with IFCAs in England. In Scotland, Wales and NI the IFCA model could inform the design of new local/regional marine or coastal partnerships.

12.2.6 Partnerships

Recognition of the difference between partnership projects and partnership networks would be helpful towards establishing continuity and a longer-term approach to collaboration.

Catchment co-ordination

It is tempting to recommend some consolidation of the different types of partneship network which have evolved. In particuar, participants suggested stronger collaboation betweeen CEPs and CaBA partnerships. This is logical from a land-based perspective, but there are strong differences between the kind of stakeholders involved in offshore marine compared to terrestrial management of the uplands. The key recommendation from this research are to focus on the coast as an ecosystem which straddles the land and sea, therefore retaining separate CEPs but increasing co-ordinated effort and joint projects at the local scale between catchment and coast. Fuzzy boundaries to deal with issues on a needs-basis is recommended, connecting catchment issues with the marine environmnent (e.g. through working groups).

Coastal and Estuary Partnerships

The potenital to evolve CEPs into stronger more secure entities is proposed through drawing on existing mechanisms for stewardship - namely the duty to cooperate, environmental net gain, nature recovery and other existing strategies, plus nested coastal plans proposed by this

research. Further evolution of trusteeship, learning from other charities and trusts in the first instance, would help to formlise existing voluntary partnerships and widen opportunities for sustainable finance. CEP officers need to be more clearly recognised for their convening and facilitation role as stewards and potential trustees/guardians. CEPs should seek to be at the forefront of co-ordinating information/data needs, and strengtening education, training and skills at the local level to champion societal/behavioural change.

12.2.7   National Networks and Non-Governmental Organisations (NGOs)

A key role exists for the national Coastal Partnerships Network (CPN) to support CEPs at the local and regional levels. It could further facilitate awareness through becoming a formaly recognised entity itself (e.g. as a Community Interest Organisation). Better recognition may put members of CPN in a position to broker integrated governance, particularly between Defra and MHCLG (e.g. through the new Coastal Communities APPG[165]) and progress the proposal for a single overview role, a national coastal strategy and nested coastal plans. To this end, emergence of the CoBA concept for full coverage of CEPs, presents opportunities to identify coastal SES units, review the UK-wide coverage of existing partnerships and seek to fill geogrpahical 'gaps'. Connection with national NGOs could help to further their role in delivering the route-map proposed in this research. They also have a valuable position to lead on education, training and professional affiliation for coastal professionals.

After nearly two decades focusing on obtaining more comprehensive marine legislation, the Wildlife & Countryside Link (Marine Group) of NGOs are beginning to give the coastal environment more attention, recognising its potential for carbon storage, biodiversity/nature recovery and blue health. They have a potentially powerful role to play in furthering the CoBA proposition and support trusteeship models with evolution of case law around the public trust doctrine. Wild law has made little appearance in their campaigning to date, but with increasing momentum around re-wildling, opportunties may arise. The National Trust are the largest coastal landowner and will continue be seek innovative solutions to adapt their estates in preaparedness for the increased risks of erosion and flooding. As estate owners they can offer innovative adaptation pathways and strike the balance between private interests and public assets.

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[165] The Coastal Communities All Party Parliamentary Group (APPG) was established in 2019 to look at coastal strategies on a cross-party basis and establish a framework for policy to help boost coastal communities across the UK. https://www.parallelparliament.co.uk/APPG/coastal-communities (accessed 14.12.2021)

Other national networks with potential roles to drive the route-map include the Association of IFCAs, Seabed User Developer Group, and the Catchment Based Approach national steering group (amongst others).

12.3 Further Research

During the course of this research and in response to the conclusions, many other areas for potential research were identified. Some of these relate to the limitations already acknowledged, whilst others would help to further the recommendations above.

Associated with the limitations of this research, further research could entail:

- Host a post-consensus workshop involving research participants alongside non-participants to share findings and discuss the recommendations.
- Ground-truth the results with representativeness of different sectors (e.g. industry) and scales (e.g. local, NI and north England). This could be done through sharing of the results and inviting observations, online or via interview with key players.
- Investigate the differences in existing CEPs with formal charity/company status compared to entirely voluntary partnerships, in particular to identify whether CIO/CIC status helps to lever longer term sustainable finance.
- Explore the findings in case study site(s), to explore how different perspectives might determine the feasibility of implementing the actions identified at the local/regional level.

To further the recommendations:

- Interviews with politicians and civil servants about the opportunity for/barriers to integrating government delivery through a national coastal strategy and policy.
- Review of case law to identify use of the *public interest* test in relation to coastal land and foreshore.
- Discuss with TCE the interpretation and application of their stewardship duties, knowledge/awareness of the public trust doctrine and potential uptake of the socio-legal options and route-map identified by this research.
- Meet with Marine Management Organisation officials about progress with marine plan implementation concerning the land-sea interface and local authority engagement, to review their approach to stakeholder engagement, and explore the benefits of (statutory) nested coastal plans.

- Review the existing staff capacity for collaborative effort in central government, NDPBs and LAs. Scope for opportunities to endorse and improve investment in collaborative effort.

- Assess application of the duty to co-operate in relation to different areas of legislation, policy and practice and case law.

- Identify coastal SES units (utilising the CoBA mapping tool[166]) and investigate the history associated with administrative boundaries versus adoption of new 'fuzzy' boundaries.

- Engage with the SMP coastal group chairs to consider the viability and definition of coastal SES units and consider the need for/value of geomorphological expertise and legal advice to test the feasibility of adopting this as a basis for future governance.

- Encourage CEPs to share experience of obtaining and operating with charity status (e.g. Pembrokeshire, Solway, Thames) through the Coastal Partnerships Network.

- Encourage the exchange of experience between the Scottish MPPs and English IFCAs: undertake an analysis of strengths/weaknesses and opportunities.

- Collate insights into the international application of wild law and the provision of legal standing for natural objects, particularly in common-law countries and in relation to watersheds/catchments and coastal areas.

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[166] https://coastalbasedapproach.org/coba-mapping (accessed 14.12.2021)

"Beaches today are where we turn our backs not just on the world at large but also on our inland selves. They are a sanctuary, groomed to remove all distractions, sometimes including the other creatures that once made them their home. Beaches are thought of as a place where time stands still, devoid of a troubling past but also of an ever pressing future".

John R. Gillis, Life and Death of the Beach, *New York Times* (June 30, 2012).

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APPENDICES   Page No.

APPENDIX 1   R1 Survey, Communications and Report

1A   R1 RECRUITMENT

PARTICIPANT SELECTION MATRIX extracted from ethics application

The following matrix will be used as a method of selecting participants to invite for the Delphi survey. They will be identified as experts in their field through the existing knowledge of the research team plus additional research and recommendations where necessary to fill gaps. Examples are given to illustrate the type of expertise sought; this process of participant selection is ongoing in parallel with the ethics application and pilot survey.   A balance of input will be gained towards an ideal sample size of between 80-100 from Round 1; allowing for some fallout through Round 2; leading to a workshop of approximately 40 participants in Round 3. Based on the matrix approach, the aim will be to invite ten participants from each sector at each scale (80-100) plus two from each cross-sector mechanism at each scale (80-100) plus a snow-balling affect, resulting in a total number of invitees of 200-300 and take-up of 75-100 participants based on a 30-50% consent rate. The main aim of the matrix is to ensure good balance across sectoral and cross-sectoral experts, spread across the different types of sector and types of participatory engagement mechanism across the five scales from UK, devolved, regional, county and local levels.

	SCALE				
SECTOR	UK	Devolved	Region	County	Local
Government (inc agency)	Defra	MMO	IFCA	NCC	DTC
Industry (cross-industry associations)	SUDG		AIFCA		
Industry & Society (user groups)					
• Ports	BPA	WPG	SWPA	GHT	ABPT
• Fisheries	NFFO	WFA	SWFPO		
• Minerals	BMAPF		BCAL		
• Energy inc renewables	UKREA				
• Tourism	GBC	VE	DB		
• Recreation	CCA	BKA	RYA - SW		EK
Environment (NGO/conservation)	TWT	WEL	SWWT	KWT	SF
Research governance/legal/policy (associations/universities/consultancies)	RGS	SAMS	SWCMP		

	SCALE				
CROSS-SECTOR **(Participatory Engagement Mechanism)**	UK	Devolved	Region	County	Local
Coastal/Estuary Partnership	CPN	SCF	NWCF	DMF	TEF
Coastal Community Team	CCA				
Coastal AONB/ Heritage Coast/ National Park		PCF		EDAONB	ENP
Coastal Group (for SMP)			SDADCAG	NSCG	
Neighbourhood/Community Plan group			EENP	CCS	
Other local community-led initiative					CPHT

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ABBREVIATION	FULL NAME
ABPT	Associated British Ports Teignmouth /
AIFCA	Association of Inshore Fisheries & Conservation Authorities
BCAL	Bristol Channel Aggregates Limited
BKA	British Kiteboard Association
BMAPF	British Marine Aggregates Producer Federation
BPA	British Ports Association
CCA	Coastal Community Alliance
CCT	Coastal Community Team
CCS	Community Council for Somerset
CPHT	Clevedon Pier Heritage Trust
CPN	Coastal Partnerships Network
DCC	Dorset County Council
DB	Destination Bristol
DEFRA	Dept for Environment Fisheries and Rural Affairs (UK)
DMF	Devon Maritime Forum
DTC	Dawlish Town Council
EENP	Essex Estuaries Neighbourhood Plan
IFCA	Inshore Fisheries & Conservation Authority
LBSMP	Lyme Bay Shoreline Management Plan
GBC	Great British Coast
GHT	Gloucester Harbour Trustees
KWT	Kent Wildlife Trust
MMO	Marine Management Organisation (England)
MS	Marine Scotland
NCC	Northumberland County Council
NI	Northern Ireland Assembly
NRW	Natural Resources Wales
NWCF	North West Coastal Forum
REA	Renewable Energy Association
RYA	Royal Yachting Association
SCF	Scottish Coastal Forum
SDADCAG	South Devon and Dorset Coastal Authorities Group
SF	Steart Forum
SWCMP	South West Coastal Monitoring Programme
SWFPO	South West Fish Producers Organisation
SWPA	South West Ports Association
SWWT	South West Wildlife Trusts
SUDG	Seabed User Developer Group
TEP	Teign Estuary Partnership
TWT	The Wildlife Trusts
VE	Visit England
WEL	Wales Environment Link
WPG	Welsh Ports Group

1B   R1 SUVEY INVITATION EMAIL

Dear

Invitation to participate in UK-wide research on coastal governance.

I'd like to invite you to participate in research to assess existing and new governance methods to support coastal stewardship in the UK. It will explore approaches to marine and terrestrial governance across the land-sea interface; opportunities, barriers and mechanisms to support collaboration; and how to improve coastal stewardship.

You have substantial expertise and experience linked to this research, therefore your contribution would be very valuable and I think you will enjoy being part of this expert dialogue. The research process is based on the Delphi method with three rounds of enquiry (two online surveys and a workshop) between which you receive feedback before moving onto the next stage. It would be great if you could participate in the three stages, but this is optional. At the end all participants will receive a report of the results.

Further information about the research is available in the Participant Information Sheet *attached.*

You will receive the Round #1 online survey this week from 'BOS' the survey software provider which will take 20-30 minutes to complete. If you have any queries please reply to me on this email address: natasha.bradshaw@uwe.ac.uk **(*not* the BOS survey email).**

By participating in this research you will join a group of UK experts engaged in a collective dialogue about the future governance of the coast. If you have any recommendations for others' who maybe interested in participating, please do let me know.

Kind regards,

Natasha Bradshaw

Doctoral Researcher
University of the West of England (UWE Bristol), Frenchay Campus, Coldharbour Lane, Bristol BS16 1QY
E: natasha.bradshaw@uwe.ac.uk / T: 0117 3286919 / M: 07775 510362

1C   R1 PARTICIPANT INFORMATION SHEET

Enhancing Collaborative Governance for Coastal Stewardship in the UK

Participant Information Sheet

Invitation
You are being invited to join an expert panel due to your experience in the management or governance of coastal resources in the UK. To inform your decision on whether to take part, this information will explain why the research is being carried out and what it will involve.

Purpose of the Research
This research seeks knowledge of governance practices in the coastal environment to improve sustainability and stewardship. The aim is to offer an insight into the existing approaches to coastal governance across the UK, assess future options - and through expert input and further research - make recommendations to improve stewardship through practice, policy and/or legislation.

Background
Where land meets sea at the coast, a dynamic environment exists with a unique set of challenges for sustainable and integrated management. The coast is not a distinct area; its definition is dependent upon the issue concerned. Different resource users and government agencies have interests and responsibilities that reach across the land-sea interface and to different geographical extents inland and offshore. Management and decision-making over coastal resources is challenging due to multiple uses at difference scales, seldom corresponding to existing administrative or planning units. Stakeholders are engaged in decision-making, but the approach is often based on specific consultation steps in response to sectoral legislation.

This research approaches the subject by analysing two key aspects of coastal governance:

- **Collaborative Governance**
  A *process* bringing together the state, private sector, civil society and the scientific community to engage collectively in decision-making across the land-sea interface.

- **Coastal Stewardship**
  The *outcome* of governance processes which improve the management of coastal resources and the health of the coastal ecosystem for future generations.

Your Role in the Research

Why have you been chosen?
You have been asked to participate because you have been identified as an expert in coastal, marine or terrestrial governance. This research has the following inclusion criteria, which we think you meet:

- You have a minimum of five years post-qualification experience of working in a field relating to the UK coast or inshore marine space;
- You are working in at least one of the following areas: planning, resource management, land ownership, government, regulation, advice, research, business/industry, non-governmental/voluntary sector, community leadership.
- You are likely to have an interest, the capacity and willingness to participate.

What will I gain from participating?
By participating in this research you will join a group of UK experts engaged in a collective dialogue about the future governance of the coast. The information obtained through this research should offer a perspective to inform, improve and integrate future governance of the UK coast at a key time for UK policy and legislation. You will learn about the collective views of others' on the future direction for coastal governance and some of the latest approaches to best practice through participating directly in the research.

Must you take part?
You are not obliged to participate in this research. If you decide to participate, it is on a voluntary basis and you can withdraw at any time without giving a reason.

4. **What will happen if I engage in the research?**
The research will use the Delphi survey method which facilitates information gathering from experts in an open and unbiased manner. Its core characteristics are anonymity, iteration, controlled feedback and statistical group response. There will be two online surveys and a workshop:

- Round #1 online survey: brainstorming;
- Round #2 online survey: ranking and narrowing down of ideas;
- Workshop: discussion to see if there is any consensus amongst participants.

If you engage in the research, it is most valuable if you continue through to the second online survey and ideally the workshop. After each stage you will receive feedback and a final report at the end.

5. **Will my responses by anonymous?**
No other respondents will be able to see your answers to survey questions. All responses will remain anonymous through the use of a unique identifier code in the analysis. Only the principal researcher will be able to link the identifier code back to the individual respondent. Any use or longer term storage of the survey data will remain un-attributable to individuals.

6. **What if something goes wrong?**
We are not aware of any complications or risks that could arise from you taking part in this study. If you decide to participate, and you have any complaints or difficulties with any aspect of the study, you should contact the principal researcher and/or another member of the Research Team (see Section 8).

7. **What happens to the results?**
Research results will inform future coastal governance through feedback of the collective findings to the participants who are actively involved in the field. The findings are likely to be published and disseminated at conferences and events, whilst the confidentiality of individual responses will remain.

8. **Who is organising and funding this study?**
The principal researcher is Natasha Bradshaw who is undertaking a PhD at the University of the West of England (UWE), Bristol. The research is part-funded by the International Water Security Network with a range of partners led by the Faculty of Environment and Technology in UWE Bristol and funded by the Lloyd's Register Foundation. The research process has been approved by the Faculty's research ethics committee and will comply with their policies and procedures.

9. **Further information**
If you wish to clarify any aspect of this research or speak to someone about it, please contact the principal researcher, Natasha Bradshaw:
- Natasha Bradshaw, Doctoral Researcher: natasha.bradshaw@uwe.ac.uk / 0117 3286919
- Dr Tom Appleby, Supervisor: thomas.appleby@uwe.ac.uk/ 0117 3286563
- Dr Enda Hayes, Director of Studies: enda.hayes@uwe.ac.uk/ 0117 3283825.

Thank you for taking the time to read this information.

UK Coastal Governance survey
Page 1: Welcome

This survey launches research to review existing and new methods to support coastal governance in the UK. Recent and future changes in legislation put the land-sea interface under the spotlight. The research will explore:

- marine and terrestrial approaches to governance across the land-sea interface;
- opportunities, barriers and mechanisms to support collaboration;
- how to improve coastal stewardship and what benefits that may bring.

You have been identified as someone with substantial expertise and experience linked to coastal/marine planning, resource use or management, regulation, policy or law. Your contribution to this study would therefore be very valuable. The research process is based on the Delphi method with three rounds of enquiry (two online surveys and a workshop). This process enables you to have the opportunity to actively contribute to and shape the research as it evolves. It would be great if you could participate in the three stages, but this is optional. At the end, all participants will receive a report of the results.

Further information about the research is available in the Participant Information Sheet. If you are interested in participating, please complete the consent section below and proceed to the survey. Should you have any queries, or require further information, please do not hesitate to contact me.

Kind regards,

Natasha Bradshaw

Doctoral Researcher, University of the West of England (UWE Bristol), Frenchay Campus, Coldharbour Lane, Bristol BS16 1QY
E: natasha.bradshaw@uwe.ac.uk / T: 0117 3286919

Page 2: Consent

1. How frequently do you undertake professional work relating to the coast (approximately)? Required

<div style="text-align:right">**Tick one**</div>

Every day

Weekly

Monthly

Quarterly

Yearly

Less than once/year

Other

1.a. If you selected Other, please specify:

2. How frequently do you undertake professional work relating to the coast (approximately)? Required

<div style="text-align:right">**Tick one**</div>

<5 years

5-10 years

11-20 years

20-30 years

>30 years

Other

2.a. If you selected Other, please specify:

3. What is your highest qualification or position (relevant to this research)? Optional

4. Your consent is required for ethical purposes. Participation in this research is voluntary and you are entitled to withdraw at any time. On completion of this survey your answers will be linked to a unique code so that your responses will be strictly confidential to the principle researcher. Your opinions will be anonymous to other participants. Confidentiality will remain when the results of the research are written up for any publication/dissemination purposes. All information will be handled and stored in accordance with the requirements of the University of the West of England and the Data Protection Act 1998. Further information is available in the Participant Information Sheet (click here). Required

Please don't select more than 1 answer(s) per row.

Please select at least 1 answer(s).

	Yes
I confirm that I have read and understood the 'Participant Information Sheet' (link above).	
I have had the opportunity to consider the information provided and have any questions answered satisfactorily.	
I understand that my participation is voluntary and I can withdraw at any time, without giving any reason.	
I understand that I will remain anonymous to the other participants throughout the online survey and its analysis.	
I understand that the principle researcher will hold all information and data collected in a secure and confidential manner.	

4.a. Your name/signature (authorisation) Required

4.b. Date (DD/MM/YYYY). Required

Page 3: Introduction

By participating in this research you will join a group of experts engaged in a collective dialogue about the future governance of the UK coast.

The Delphi process seeks your personal ideas and opinions, not those of your employing organisation. There are three stages involving experts in a journey from individual to shared views (not necessarily consensus) through:

- Round #1 online survey: brainstorming
- Round #2 online survey: ranking
- Workshop: discussion and recommendations.

Your opinion expressed in this Round #1 survey will be analysed alongside others and collectively and anonymously reflected back to you. This will inform the design of questions for the Round #2 survey which will be reported back to you and inform the design of a workshop in early 2018.

If you complete this Round #1 survey you are not obliged to participate any further, but it would be helpful. All participants will receive a report of the results at the end of the Delphi process. **Thank you for agreeing to participate in this research.**

Page 4: Round #1 Survey

The questions in this survey are very open in order to gather a wide range of views and enable participants to lead the direction of future enquiry. You will be asked for your opinion on the following:

- Strengths and weaknesses of existing approaches to coastal governance (Q.5 & 6).
- Opportunities in the future and benefits of improving coastal governance (Q.7 & 8).
- Drivers and mechanisms for collaboration and stewardship (Q.9 & 10).
- A vision for future coastal governance (Q.11).

The final section 'About You' (Q.12) requires quick but important feedback to help categorise results and design the Round #2 survey.

Further background to the questions is provided in the Participant Information Sheet.

Please answer each question as best you can, it should take 20-30 minutes. If you need to complete the survey in stages, you can save your progress by selecting 'finish later'. This is also good practice to avoid losing work as you progress through the survey. You can scroll forwards and backwards through your survey using the previous' and 'next' buttons at the bottom of each page, to edit answers until you submit at the end.

Should you have any queries, require further information or experience difficulties with the on-line questionnaire please contact me: natasha.bradshaw@uwe.ac.uk/ 0117 3286919.

Please complete this survey by **Friday 29th September 2017.**

Page 5: Strengths of existing governance

In your opinion, what are the strengths of existing approaches to marine and terrestrial governance for the coast? What's working well? *Please provide a brief explanation or example based on your own opinion (not that of your employing organisation).*

5. Strengths of existing approaches to coastal governance

	Strength	Comment/Example
1.		
2.		
3.		

5.a. Any other comments/details?

Page 6: Weaknesses of existing governance

In your opinion, what are the weaknesses of existing approaches to marine and terrestrial governance for the coast? What problems exist? *Please provide a brief explanation or example based on your own opinion (not that of your employing organisation).*

6. Weaknesses of existing approaches to coastal governance

	Weaknesses	Comment/Example
1.		
2.		
3.		

6.a. Any other comments/details?

Page 7: Opportunities for better governance

Looking ahead, can you identify opportunities for better approaches to marine and terrestrial governance for the coast? *Please provide a brief explanation or example based on your own opinion (not that of your employing organisation).*

7. Opportunities for improvement in coastal governance

	Opportunity	Comment/Example
1.		
2.		
3.		

7.a. Any other comments/details?

Page 8: Benefits

In your opinion, what benefits/added value could improvements in coastal governance bring? *Please provide a brief explanation or example based on your own opinion (not that of your employing organisation).*

8. Benefits of improving coastal governance

	Benefit	Comment/Example
1.		
2.		
3.		

8.a. Any other comments/details?

Page 9: Collaboration

9. To what extent is collaboration embedded in what you do? *Please select one answer on the following scale.*

1 - significantly

2

3 - moderately

4

5 - not at all

9.a. What does the concept of collaborative governance mean to you? *Please*

provide one or two sentences to offer your perspective.

9.b. Based on your own experience, what drivers or mechanisms encourage collaboration across the land-sea interface for coastal governance?

           Collaborative Driver/ Mechanism   **Comment/ Example**

1.

2.

3.

9.c. What (if any) barriers do you see for future collaboration across the land-sea interface for coastal governance? Please provide one or two sentences to offer your perspective.

Page 10: Stewardship

10. To what extent does the term stewardship represent what you do? *Please select one answer on the following scale.*

1 - significantly

2

3 - moderately

4

5 - not at all

10.a. What does the concept of stewardship mean to you? *Please provide one or two sentences to offer your perspective.*

10.b. Based on your own experience, what drivers or mechanisms encourage good coastal stewardship?

Stewardship Driver/ Mechanism	Comment/ Example
1.	
2.	
3.	

10.c. What (if any) barriers do you see for future coastal stewardship? *Please provide one or two sentences to offer your perspective.*

Page 11: Vision

11. In your opinion, what will better governance of the coast look like in the future? Please provide a brief explanation or example (in two or three sentences) based on your own opinion (not that of your employing organisation).

Page 12: About You

12. Is your main area of interest mainly marine, terrestrial or coastal? *Please tick more than one box if your interests do not easily fall into one area.*

Tick one

Marine
Terrestrial
Coastal
All
Other (please specify below)

12.a. If you selected Other, please specify:

13. What is the main scale of your interests? *Please tick more than one box if your interests relate strongly to more than one area. Required*

Tick one

International
European
UK-wide
Scotland
Wales
NI
England-wide
England (NW region)
England (SW region)
England (NE region)
England (SE region)
County/sub-region
Local community/ecosystem
Other (please specify below)

13.a. If you selected Other, please specify:

14. Are your interests primarily within a sector or across multiple sectors? *Please select one option and continue onto the next question whatever your answer. Required*

14.a. Which sector best describes your interests? *Please tick more than one box if your interests relate to more than one area and list any other sector you are involved with.*	**Tick all that apply**

Business/ industry or commercial
Community interest group/ user
Conservation (environmental protection, heritage)
Extractive industry (aggregates, oil)
Fisheries/ aquaculture (commercial, recreational)
Government/ regulatory
Landowner/ tenant/ farming or land management
Leisure (tourism, recreation)
Non-governmental organisation/ voluntary sector
Port/ harbour authority or navigation
Research/ science
Utility or service provider (water/ energy/ transport)
NONE (my role/interests are mainly cross-sectoral/multi-stakeholder or neutral)
OTHER sectoral interest (please specify below)

14.a.i. If you selected Other, please specify:

14.a.ii. How would you describe your role in the above sector(s)? *Please tick more than one box if your role relates strongly to more than one area.*	**Tick all that apply**

Regulator
Manager
Employee
Volunteer
Trustee

Director
Adviser/ consultant
Researcher
Practitioner
Local community representative (e.g. elected member/leader/facilitator)
User
None
OTHER (please specify below)

14.a.ii.a. If you selected Other, please specify:

14.b. Are you (or have you been) actively engaged in any of the following multisector initiatives? *Please tick more than one box if you have been involved in multiple initiatives and list any other multi-sector initiatives you are involved with.*	**Tick all that apply**

Coastal Area of Outstanding Natural Beauty/ Heritage Coast/ National Park
Coastal Community Team
Coastal/ Estuary Partnership
Coastal Group (for Shoreline Management Plan/coastal monitoring)
Community or Neighbourhood Plan
European Marine Site
Inshore Fisheries and Conservation Authority / Inshore Fisheries Group or Trust
Landscape Partnership
Local Enterprise Partnership
Local Nature Partnership
River Basin District Liaison Panel
Rivers Trust
Stakeholder Advisory Body
Trust Port
Other Charity / Company / Trust (please specify below)
OTHER multi-sector initiative (please specify below)
NONE (my role/ interests are mainly sectoral).

14.b.i. Other

14.b.ii. How would you describe your role in the above initiative(s)? *Please tick more than one box if your role relates strongly to more than one area.*	**Tick all that apply**

Regulator
Manager
Employee

Volunteer
Trustee
Director
Adviser/ consultant
Researcher
Practitioner
Local community representative (e.g. elected member/leader/facilitator)
User
None
OTHER (please specify below)

14.b.i.a. If you selected Other, please specify:

Thank You & Next Steps

Thank you very much for completing the UK Coastal Governance Round #1 online survey.

Next Steps
1. In October 2017 you'll be sent aggregated feedback from all those who have participated: this will provide an insight to what other experts across the UK think about the questions asked.
2. In November 2017 you'll be invited to participate in the Round #2 online survey, which will contain more specific questions (based on the collective answers from Round #1).
3. In December 2017, there will be a second round of feedback and workshop invitation to share views and participate in a forward-looking discussion about coastal governance in early 2018.
4. A final report and launch event will be held later in 2018.

The value of this Delphi process is determined by the experienced views which participants bring to it. Continuity of engagement is very important, so please look out for the feedback and your invitation to Round #2.
If you have any questions please contact natasha.bradshaw@uwe.ac.uk / 0117 3286919.

1E   R1 REPORT COMMUNICATION

R1 REPORT FEEDBACK

31.01.2018

UK Coastal Governance Research - Participants Update (3) - Round #1 survey results

The results of the UK Coastal Governance survey which you completed last Autumn are now available. With 170 participants there was a significant amount of data to analyse - some very rich and interesting insights. Thank you.

Attached is a 'Participants Report' and a (pdf) copy of your individual completed survey.

As you may recall, the research process is based on the Delphi method with three rounds of enquiry (two online surveys and a workshop). Before we move to the next survey round, I would be grateful if you could review this high-level summary report. This is an important part of the Delphi process as it provides an opportunity for you to review whether your first survey contributions are represented. This will increase certainty in the validity of the data used to inform the next survey which will be sent to you in 4-6 weeks time.

Thank you again for your interest in this research.

Kind regards,

Natasha

Natasha Bradshaw
Doctoral Researcher
International Water Security Network
University of the West of England (UWE Bristol)
Frenchay Campus
Coldharbour Lane
Bristol
BS16 1QY

T: +44 (0)117 328 6919
M: +44 (0)7775 510362
E: natasha.bradshaw@uwe.ac.uk

UK Coastal Governance

Future Insights

Round #1 Delphi Participants Report

Natasha Bradshaw

January 2018

Funded by   Led by   In partnership with

UK Coastal Governance – Future Insights

Round #1 Delphi Participants Report

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Table of Contents

APPENDIX 2   R2 Survey, Communications and Report

2A   R2 SURVEY INVITATION EMAIL

Subject: UK Coastal Governance Research - Participants Update (4) - Round #2 Survey Launched

UK Coastal Governance research - Round #2 Survey Launched

As one of 170 participants in the UK Coastal Governance Round #1 survey, you are now being invited to participate in the Round #2 survey. The research is exploring current approaches and an optimal framework for future coastal governance. You were sent the report of results from the Round #1 survey 'UK Coastal Governance - Future Insights' in January (see below).

As before, you should receive an email from **'BOS'** the online survey provider with a link which is for you and should not be passed onto anyone else. It will take 20-30 minutes to complete, with more closed questions for 'tick-box' responses as opposed to the very open questions last time.   Please let me know if you don't receive the email from BOS.

At the end of the survey you will be asked to indicate your availability for a **Round #3 workshop** which is pencilled in for **4th July 2018 in Bristol**(subject to availability). Your own response and the collective response to the Round #2 survey will be sent to you before then.

I look forward to receiving your further views and moving onto the next stage of this research.

Please don't hesitate to contact me with any queries.

Kind regards,
Natasha

LAUNCH EMAIL FROM BOS issued Monday 9th April

UK Coastal Governance Round #2 Survey - your link

Dear [X1]

You are invited to participate in Round #2 of the UK Coastal Governance research, being conducted by Natasha Bradshaw of UWE (Bristol).

This invitation follows your participation in the Round #1 online survey in Autumn 2017 and the 'UK Coastal Governance - Future Insights' report you received in January 2018, together with a copy of your Round #1 response. Natasha is sending you an email alongside this message with the background information.

The link below to the Round #2 online survey is for your use only and should not be forwarded to anyone else.

[CUSTOM_URL]

If you prefer a paper copy of the survey, please let Natasha know.
Responses are requested by 27th April 2018.

Any queries please contact Natasha Bradshaw

2B   R2 PARTICIPANT INFORMATION SHEET

Participant Information Sheet *Updated for Round #2 of the Delphi process, February 2018*

Enhancing Collaborative Governance for Coastal Stewardship in the UK

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Invitation
You are being invited to join an expert panel due to your experience in the management or governance of coastal resources in the UK. To inform your decision on whether to take part, this information will explain why the research is being carried out and what it will involve.

Purpose of the Research
This research seeks knowledge of governance practices in the coastal environment to improve sustainability and stewardship. The aim is to offer an insight into the strengths, weaknesses, opportunities and threats with existing and potentially new approaches to governance - and with further research, make recommendations to improve stewardship through practice, policy and/or legislation.

Background
Where land meets sea at the coast, a dynamic environment exists with a unique set of challenges for sustainable and integrated management. The coast is not a distinct area; its definition is dependent upon the issue concerned. Different resource users and government agencies have interests and responsibilities that reach across the land-sea interface and to different geographical extents inland and offshore. Management and decision-making over coastal resources is challenging due to multiple uses at difference scales, seldom corresponding to existing administrative or planning units. Stakeholders are engaged in decision-making, but the approach is often based on specific consultation steps in response to sectoral legislation.

This research approaches the subject by analysing two key aspects of coastal governance:

- **Collaborative Governance**
  A *process* bringing together the state, private sector, civil society and the scientific community to engage collectively in decision-making. *From the Round #1 survey, participants' responses were categorised into 'Top-down' vs 'Bottom-up' approaches on a 7-point scale which is explored further in the Round #2 survey.*

- **Coastal Stewardship**
  The *outcome* of governance processes which improve the management of coastal resources and the health of the coastal ecosystem for future generations.

Your Role in the Research

Why have you been chosen?
You have been asked to participate because you have been identified as an expert in coastal, marine or terrestrial governance. The research has the following inclusion criteria, which we think you meet:

- You have a minimum of five years post-qualification experience of working in a field relating to the UK coast or inshore marine space;
- You are working in at least one of the following areas: planning, resource management, land ownership, government, regulation, advice, research, business/industry, non-governmental/voluntary sector, community leadership.
- You are likely to have an interest, the capacity and willingness to participate.

What will I gain from participating?
By participating in this research you will join a group of UK experts engaged in a collective dialogue about the future governance of the coast. The information obtained through this research should offer a perspective to inform, improve and integrate future governance of the UK coast at a key time for UK policy and legislation. You will learn about the collective views of others' on the future direction for coastal governance and some of the latest approaches to best practice through participating directly in the research.

3. *Must you take part?*
You are not obliged to participate in this research. If you decide to participate, it is on a voluntary basis and you can withdraw at any time without giving a reason.

4. *What will happen if I engage in the research?*
The research will use the Delphi survey method which facilitates information gathering from experts in an open and unbiased manner. Its core characteristics are anonymity, iteration, controlled feedback and statistical group response. There will be two online surveys and a workshop:

- Round #1 online survey: brainstorming;
- Round #2 online survey: ranking and narrowing down of ideas;
- Workshop: discussion to see if there is any consensus amongst participants.

If you engage in the research, it is most valuable that you continue through to the second online survey and ideally the workshop. After each stage you will received feedback and a final report at the end.

5. *Will my responses by anonymous?*
No other respondents will be able to see your answers to survey questions. All responses will remain anonymous through the use of a unique identifier code in the analysis. Only the principal researcher will be able to link the identifier code back to the individual respondent. Any use or longer term storage of the survey data will remain un-attributable to individuals.

6. *What if something goes wrong?*
We are not aware of any complications or risks that could arise from you taking part in this study. If you decide to participate, and you have any complaints or difficulties with any aspect of the study, you should contact the principal researcher and/or another member of the Research Team (see Section 8).

7. *What happens to the results?*
Research results will inform future coastal governance through feedback of the collective findings to the participants who are actively involved in the field. The findings are likely to be published and disseminated at conferences and events, whilst the confidentiality of individual responses will remain.

8. *Who is organising and funding this study?*
The principal researcher is Natasha Bradshaw who is undertaking a PhD at the University of the West of England (UWE) Bristol. The research is part-funded by the International Water Security Network with a range of partners led by the Faculty of Environment and Technology in UWE Bristol and funded by the Lloyd's Register Foundation. The research process has been approved by the Faculty's research ethics committee and will comply with their policies and procedures.

9. *Further information*
If you wish to clarify any aspect of this research or speak to someone about it, please contact the principal researcher, Natasha Bradshaw:
- Natasha Bradshaw, Doctoral Researcher: natasha.bradshaw@uwe.ac.uk / 0117 3286919
- Dr Tom Appleby, Supervisor: thomas.appleby@uwe.ac.uk / 0117 3286563
- Dr Enda Hayes, Director of Studies: enda.hayes@uwe.ac.uk / 0117 3283825.

Thank you for taking the time to read this information.

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UK Coastal Governance (Round #2) FINAL (copy)

Page 1: Welcome & Introduction

Round #2 Online Survey

This is the second of a three-stage research process inviting experts from many sectors and regions of England, Scotland, Wales and Northern Ireland to comment on future approaches to coastal governance across the UK.

Exploring Areas of Consensus

The questions in this survey are based on the answers given by 170 participants to the Round #1 online survey, which asked very open questions about the characterstics of existing approaches to governance of the coast. Based on the purposes of the research, it also started to explore drivers/mechanisms and barriers to collaboration and stewardship, which are the key focus for this survey.

The overall purpose of this Round #2 survey is to explore the areas of consensus between participants which appeared from answers to the Round #1 survey. This will be achieved through mainly closed questions and ranking on scales, with the option for further explanation if you wish. It will take approximately 20-30 minutes to complete.

For further background, please refer to:

- Participant Information Sheet (updated from September 2017)
- Round #1 Delphi Participants Report (January 2018)
- UK Coastal Governance research webpage

The consent you gave at the beginning of the Round #1 survey was for the whole Delphi research process. Ongoing participation is optional, but only the participipants in Round #1 are able to complete this survey, so please remain involved. Your responses will continue to remain anonymous - only the prinicial researcher can link responses back to individuals through a unique identifier code.

The closing date for this survey is **Friday 27th April 2018**.

Please contact me if you would like a paper copy of this survey or have any queries:
Natasha.Bradshaw@uwe.ac.uk

Page 2: Your Primary Interest - Scale and Sector

The research is reviewing approaches across the UK including key differences between the devolved administrations* and, based on a comparison between approaches, may suggest a more optimal framework to guide future governance.

* Key differences in approaches to governance which offer opportunities for comparison include the Marine Planning Partnerships in Scotland; the Public Service Boards in Wales; and the Inshore Fisheries & Conservation Authorities in England.

Scale

1. **Please select one geographical perspective you would like to offer for your answers to this survey.** *It would be helpful if you could retain this scale of perspective whilst completing the survey.* ✳ *Required*

- ○ International
- ○ European
- ○ UK-wide
- ○ Scotland
- ○ Wales
- ○ Northern Ireland
- ○ England
- ○ England - NW region
- ○ England - SW region
- ○ England - NE region
- ○ England - SE region
- ○ County/sub-region
- ○ Local community/ecosystem
- ○ Other (please specify below):

1.a. If you selected Other, please specify:

[   ]

2. **Please select one *sector* or *interest* which best represents your perspective.**   ✳ *Required*

○ Businesss / industry / commercial

○ Community interest group / user

○ Conservation (environmental protection, heritage, landscape)

○ Extractive industry (aggregates, oil)

○ Fisheries / aquaculture (commercial, recreational)

○ Government / regulatory

○ Landowner / tenant / farming or land management

○ Leisure (tourism, recreation)

○ Non-governmental organisation / voluntary sector

○ Port / harbour authority or navigation

○ Research / science / academic

○ Utility or service provider (water / energy / transport)

○ NONE: Cross-sector / planning & management (my role/interests are neutral)

○ OTHER sectoral interest (please specify below)

2.a. If you selected Other, please specify:

[   ]

Important note - providing your expert opinion

It is recognised that around the UK coast there are many different scenarios for how the coast is managed. Most of the following questions require you to generalise from your own experiences, remembering that your participation in this survey is based on your overall **personal knowledge and professional judgement** - rather than reflecting on your immediate / most recent day-to-day activities or the position of any organisation.

You can scroll forwards and backwards through your survey using the 'previous' and 'next' buttons at the bottom of each page, to edit answers until you submit at the end. If you need to complete the survey in stages, you can save your progress by selecting 'finish later'. This is also good practice to avoid losing work as you progress through the survey.

Page 3: Outline of Round #2 Survey

There are **five sections** in the survey grouped into the following themes:

APPROACH TO GOVERNANCE across the Land-Sea Interface (page 4)

COLLABORATION to Strengthen Coastal Governance (page 5)

ORGANISATIONS and the Institutional Framework (page 6)

MARINE and TERRESTRIAL PLANNING for the Coast (page 7)

SOCIO-LEGAL MECHANISMS for Coastal Stewardship (page 8)

The questions are based on areas of consensus identified from the Round #1 survey responses as reported in the Round #1 Participants' Report.

Page 4: APPROACH TO GOVERNANCE across the Land-Sea Interface

The Round #1 survey asked questions about the existing characteristics of **coastal** governance. Many of the responses were categorised into participants' perceptions of a 'bottom-up' vs. 'top-down' approach, which needs further assessment.

A **'top-down' approach** is characterised by direction and decision-making led by central government.

A **'bottom-up' approach** is characterised by direction and decision-making led by coastal communities.

In between 'top-down' and 'bottom-up' are approaches to participation in decision-making which involve communication and consultation (at the 'top-down' end of the scale), stakeholder engagement, partnership working, public participation, co-management and empowering communities (at the 'bottom-up' end of the scale).

Top-Down and Bottom-Up

Responses to the Round #1 survey indicate that the existing approach to UK coastal governance is fragmented, complex and lacking transparency and accountability. Participants suggested that there are opportunities to improve marine and terrestrial governance for the coast.

3. **To what extent would you support the following approaches to improve coastal governance?** *Please* **rank** *the following in order of importance.*

	1: LEAST support	2	3: MOST support
More 'top-down' direction and decision-making	☐	☐	☐
Efforts to bring 'top-down' and 'bottom-up' approaches together	☐	☐	☐
More 'bottom-up' direction and decision-making	☐	☐	☐

3.a. Please provide a short explanation for your answer:

Engagement in Decision-Making

4. **To what extent are the following approaches to** *engagement in decision-making* **important for future coastal governance?** *Please rank the following in order of importance by ticking column 7 for the most important down to column 1 for the least important.*

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	1 - LEAST important	2	3	4	5	6	7 - MOST important	
Communicating decisions	☐	☐	☐	☐	☐	☐	☐	More 'top-down' approach
Consultations	☐	☐	☐	☐	☐	☐	☐	.
Stakeholder engagement	☐	☐	☐	☐	☐	☐	☐	.
Partnership working	☐	☐	☐	☐	☐	☐	☐	.
Public participation	☐	☐	☐	☐	☐	☐	☐	.
Co-design and management	☐	☐	☐	☐	☐	☐	☐	.
Community led decision-making	☐	☐	☐	☐	☐	☐	☐	More 'bottom-up' approach

Other Factors Influencing our Approach to Coastal Governance

5. **To what extent are the following factors important for our future approach to coastal governance?** *Please rank the following in order of importance by ticking column 7 for the most important down to column 1 for the least important.*

	1 - LEAST importance	2	3	4	5	6	7 - MOST importance
Accountability, transparency, trust and understanding	☐	☐	☐	☐	☐	☐	☐
Integrated, ecosystem-based approach principles	☐	☐	☐	☐	☐	☐	☐
Statutory approaches	☐	☐	☐	☐	☐	☐	☐
Non-statutory approaches	☐	☐	☐	☐	☐	☐	☐
Facilitating networks	☐	☐	☐	☐	☐	☐	☐

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The role of a chair/leader	☐	☐	☐	☐	☐	☐	☐
A long-term (as opposed to project-based) approach	☐	☐	☐	☐	☐	☐	☐

Page 5: COLLABORATION to Strengthen Coastal Governance

Over 70% of survey participants in Round #1 indicated that collaboration is significantly embedded in what they do. Many participants indicated that good collaboration would be underpinned by a shared vision for the coast with more democractic, transparent decision-making. However, over 60 responses referred to the lack of incentive to collaborate and views on *how* to go about collaborative effort differ.

Based on the Round #1 responses, this section explores the benefits of collaboration, how to strengthen collaborative approaches and the extent to which they can overcome the complexity in existing coastal governance.

Benefits of Collaboration

The concept of collaborative governance was explored in the Round #1 survey with participants associating it with working together (28%), a shared aim (27%), stakeholder input (18%) and generating a sense of ownership (14%). Further information is needed on what specific benefits are gained from collborative effort.

6. **Please describe briefly what specific benefits you seek from collaboration?**

7. **Are there any *disadvantages* to a collaborative approach?**

Drivers and Barriers to Collaboration

The following two questions seek greater clarification over *how* to strengthen collaborative efforts, building on your answers to the questions on barriers and drivers for collaborative effort in Round #1.

8. **Which of the following factors need most strengthening to improve the effectiveness of collaboration across the land-sea interface in coastal areas?** *Please **rank** the following in order of importance.*

	1 - LEAST strengthening required	2	3	4	5	6	7 - MOST strengthening required
Political will towards the coast	☐	☐	☐	☐	☐	☐	☐

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Legal incentives towards the coast	☐	☐	☐	☐	☐	☐	☐
Legal incentives to collaborate	☐	☐	☐	☐	☐	☐	☐
Policy incentives towards the coast	☐	☐	☐	☐	☐	☐	☐
Policy incentives to collaborate	☐	☐	☐	☐	☐	☐	☐
Staff capacity in public (statutory) bodies	☐	☐	☐	☐	☐	☐	☐
Staff capacity in voluntary (non-statutory) initiatives	☐	☐	☐	☐	☐	☐	☐

9. Which of the following factors need most strengthening to improve the effectiveness of collaboration across the land-sea interface in coastal areas? *Please rank the following factors in order of the required strengthening.*

	1 - LEAST strengthening required	2	3	4	5	6	7 - MOST strengthening required
A shared vision for the coast	☐	☐	☐	☐	☐	☐	☐
Statutory consultations on policy, plans and development proposals	☐	☐	☐	☐	☐	☐	☐
Voluntary initiatives (e.g. forums, stakeholder groups, committees)	☐	☐	☐	☐	☐	☐	☐
A long-term (as opposed to project-based) approach	☐	☐	☐	☐	☐	☐	☐
Cross-sector collaboration	☐	☐	☐	☐	☐	☐	☐

Cross-boundary collaboration	☐	☐	☐	☐	☐	☐	☐
Knowledge-sharing	☐	☐	☐	☐	☐	☐	☐

Page 6: ORGANISATIONS and the Institutional Framework

Responses to the Round #1 survey highlighted the complexity of institutional arrangements including a lack of understanding, co-ordination and overlaps between organisations. This can result in poor accountability and a lack of trust or transparency in decision-making. Organisations are more likely to present barriers (than drivers) to collaboration, requiring significant resources to covercome them.

Organisations Driving Collaboration

10. **To what extent are the following organisations *currently driving* collaboration for the coast?** While it is appreciated that there are differences according to circumstances and location, please generalise from your experience and use the open-text box (in Q9.a) to explain any significant variation you'd like to share. *Please identify the effort of each organisation on the scale (they do not need to be ranked in order of importance).*

	1: Makes LITTLE collaborative effort	2	3	4	5	6	7: Makes SUBSTANTIAL collaborative effort	Don't know
Central Government	☐	☐	☐	☐	☐	☐	☐	☐
Regulators	☐	☐	☐	☐	☐	☐	☐	☐
Statutory Agencies	☐	☐	☐	☐	☐	☐	☐	☐
Marine Planning Authorities	☐	☐	☐	☐	☐	☐	☐	☐
Local Authorities	☐	☐	☐	☐	☐	☐	☐	☐
Port/harbour authorities	☐	☐	☐	☐	☐	☐	☐	☐
European Marine Site (EMS) Management Groups	☐	☐	☐	☐	☐	☐	☐	☐
Coastal & Estuary Partnerships / Forums	☐	☐	☐	☐	☐	☐	☐	☐

Coastal Groups for Shoreline Management Plan (SMP)	☐	☐	☐	☐	☐	☐	☐
Community-led initiatives and local voluntary approaches	☐	☐	☐	☐	☐	☐	☐
Non-Governmental Organisations (national-level)	☐	☐	☐	☐	☐	☐	☐
Developers	☐	☐	☐	☐	☐	☐	☐
Consultants	☐	☐	☐	☐	☐	☐	☐
Coastal Community Teams (England)	☐	☐	☐	☐	☐	☐	☐
Inshore Fisheries & Conservation Authorities (England)	☐	☐	☐	☐	☐	☐	☐
Public Service Boards (Wales)	☐	☐	☐	☐	☐	☐	☐
Marine Planning Partnerships (Scotland)	☐	☐	☐	☐	☐	☐	☐
Other (please specify below)	☐	☐	☐	☐	☐	☐	☐

10.a. You may offer a short explanation for your answer(s) if you wish:

Characteristics of Effective Collaboration

11. From the organisations you have selected above in Q.9 as strongly driving collaborative effort, can you identify what characteristics determine *effective* collaboration? *Please rank the following drivers in order of importance.*

	1 - LEAST effective driver	2	3	4	5	6	7 - MOST effective driver
Partnership approaches	☐	☐	☐	☐	☐	☐	☐
Networking & facilitation skills	☐	☐	☐	☐	☐	☐	☐
Leadership skills	☐	☐	☐	☐	☐	☐	☐
Knowledge exchange objectives	☐	☐	☐	☐	☐	☐	☐
Staff capacity	☐	☐	☐	☐	☐	☐	☐
Continuity of staff service	☐	☐	☐	☐	☐	☐	☐
Set targets requiring collaboration	☐	☐	☐	☐	☐	☐	☐

11.a. You may offer a short explanation for your answer(s) if you wish:

Organisations Roles and Responsibilities

12. Which of the following action(s) would you recommend to improve clarity and understanding about the roles and responsiblities of the above bodies and initiatives for the management of coastal resources? *Please rank the following actions in order of importance.*

	1: LEAST recommend	2	3	4	5	6	7: MOST strongly recommend

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	1: LEAST recommend	2	3	4	5	6	7: MOST strongly recommend
More formal communication and networking	☐	☐	☐	☐	☐	☐	☐
More informal communication and networking	☐	☐	☐	☐	☐	☐	☐
Linking services and co-ordinating management responsibilities	☐	☐	☐	☐	☐	☐	☐
Streamlining powers	☐	☐	☐	☐	☐	☐	☐
Divesting more responsibility from higher to lower tiers of government	☐	☐	☐	☐	☐	☐	☐
Creating a single overview role for coastal matters(s) at the national level	☐	☐	☐	☐	☐	☐	☐
Creating a single overview role for coastal matter(s) at the local community/ecosystem scale	☐	☐	☐	☐	☐	☐	☐

12.a. You may offer a short explanation for your answer(s) if you wish:

Leadership for Coastal Governance

A quarter of responses to the Round #1 survey identified value in improving coastal governance for the benefit of the coastal ecosystem and future resource sustainability. However, a lack of political will or leadership at this time presents a barrier to achieving it and it is not clear where this leadership should come from.

13. **Do you have any opinion about who (if any one organisation) is best placed to lead or champion the coast at each of the following scales?**

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UK	
National (Scotland, NI, Wales, England)	
Regional or sub-regional / County	
Local Community / Ecosystem	
Other	

Collaboration at the Local Community / Ecosystem Scale

Participants in Round #1 indicated that greater collaboration is needed between and within organisations to improve clarity and understanding about their roles and responsibilties.

14. Which of the following initaitives would you priorise to support collaboration *at the local community/ecosystem scale*? *Please chose your top THREE in order of priority.*

	1st	2nd	3rd
Coastal Area of Outstanding Natural Beauty / Heritage Coast / National Park	☐	☐	☐
Coastal Community Team (England)	☐	☐	☐
Coastal / Estuary Partnership or Forum	☐	☐	☐
Coastal Group (for Shoreline Management Plan or coastal monitoring)	☐	☐	☐
Community or Neighbourhood Plan (England) or equivalent	☐	☐	☐
European Marine Site Management Group	☐	☐	☐
Harbour Authority or Trust Port	☐	☐	☐
Inshore Fisheries & Conservation Authority (England)	☐	☐	☐
Inshore Fisheries Group or Trust	☐	☐	☐
Landscape Partnership (England)	☐	☐	☐
Local Enterprise Partnership (England) or equivalent	☐	☐	☐
Local Nature Partnership (England) or equivalent	☐	☐	☐
Marine Planning Partnership (Scotland)	☐	☐	☐
Public Service Board (Wales)	☐	☐	☐
Rivers Trust	☐	☐	☐
Stakeholder Advisory Body	☐	☐	☐
Other (please specify below)	☐	☐	☐

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14.a. If you selected 'Other' please specify:

14.b. You may offer further explanation for your above answers. **Of the initiatives you consider to most strongly drive collaborative effort, at the local community/ecosystem scale, are there any with common characteristics?**

Page 7: MARINE and TERRESTRIAL PLANNING for the Coast

Effectiveness of Marine Planning for the Coast

15. Overall and in your opinion, to what extent is the marine planning system working effectively across the land-sea interface for the coast?

- ○ 1 - Not at all
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly
- ○ Don't know

Collaboration between Marine Planning Authorities

16. The UK Marine Acts contain a requirement to 'secure compatibility' between plans. The overlap between marine and terrestrial planning systems may encourage collaboration betweeen planning authorities and stakeholders in the coastal area. Overall, how well is this working?

- ○ 1 - Not at all
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly
- ○ Don't know

17. How important could the following factors be to improving collaboration between marine and terrestrial planning authorities for coastal planning? *Please **rank** the following factors in order of importance.*

	1 - LEAST important	2	3	4	5	6	7 - MOST important
Time for marine planning to mature	☐	☐	☐	☐	☐	☐	☐
Stronger forward planning objectives in marine plans	☐	☐	☐	☐	☐	☐	☐
More resource capacity / expertise	☐	☐	☐	☐	☐	☐	☐
More legal / policy incentives	☐	☐	☐	☐	☐	☐	☐
More involvement of land, foreshore & seabed owners (e.g. Crown Estate)	☐	☐	☐	☐	☐	☐	☐
Introduce a single licensing authority for the coastal zone	☐	☐	☐	☐	☐	☐	☐
None: a new approach is needed to lead coastal planning	☐	☐	☐	☐	☐	☐	☐
Other (please specify below)	☐	☐	☐	☐	☐	☐	☐

17.a. If you selected 'Other' please specify:

[   ]

Scale and Connectivity Between Marine and Ter Zoom out (Ctrl+Minus)

Marine Plans are being prepared around the UK coast at the national level for Wales, Northern Ireland and Scotland including regional plans and the English inshore and offshore regions. Terrestrial planning is undertaken at a more local scale across the UK. Participants in Round #1 reported a weakness in connectivity between marine and terrestrial planning. The different scales for marine and terrestrial planning may present a challenge for integrated coastal management and application of the ecosystem approach.

18. **Which of the following measures would be most helpful to ensure representation of coastal stakeholders and communities in the planning processes?** *Please **rank** the following in order of importance.*

	1 - LEAST helpful	2	3	4	5	6	7 - MOST helpful
Strengthen marine planning at the local scale	☐	☐	☐	☐	☐	☐	☐
Strengthen terrestrial planning at the regional scale	☐	☐	☐	☐	☐	☐	☐
Statutory coastal plans nested within marine & terrestrial plans	☐	☐	☐	☐	☐	☐	☐
Voluntary coastal plans nested within marine & terrestrial plans	☐	☐	☐	☐	☐	☐	☐
Design a new planning approach focused on the coast	☐	☐	☐	☐	☐	☐	☐
More specific regulation for coastal interests and activities	☐	☐	☐	☐	☐	☐	☐
More investment in collaborative effort	☐	☐	☐	☐	☐	☐	☐

18.a. If you selected 'Other' please specify:

[   ]

Leadership for Coastal Planning

To enable better leadership and engagement across the land-sea interface for coastal planning, there may be a need for stronger direction.

19. **From which of the following levels would you most support stronger direction for coastal planning?** *Please **rank** the following in order of importance.*

	1 - LEAST support	2	3	4 - MOST support
UK	☐	☐	☐	☐
National (Scotland, Wales, NI and England)	☐	☐	☐	☐
Regional or sub-regional / county	☐	☐	☐	☐

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Local community / ecosystem	☐	☐	☐	☐

19.a. You may offer a short explanation for your answer(s) if you wish:

20. **In your experience, are there any other ways to promote more effective planning *for the coast*?**

Page 8: SOCIO-LEGAL MECHANISMS for Coastal Stewardship

Participants in this research have suggested that the conditions for <u>coastal stewardship</u> could be improved through stronger and clearer frameworks: reducing fragmentation, simplifying the complex institutional framework and giving stronger backing to local codes and byelaws. This section explores socio-legal mechanisms which could further coastal stewardship.

Promoting Coastal Stewardship

21. **To what extent does *implementation* of the following mechanisms promote stewardship of coastal resources *at the current time*?** This shorlist is based on responses to the Round #1 survey and a review of legislation which is most relevant for coastal management. *Please identify how important each factor is on the scale* (they do not need to be ranked in order of importance).

	1 - Not at all	2	3	4	5	6	7 - Strongly	Don't know
UK High Level Marine Objectives	☐	☐	☐	☐	☐	☐	☐	☐
Marine Planning & Licensing	☐	☐	☐	☐	☐	☐	☐	☐
Terrestrial Planning & Development Control	☐	☐	☐	☐	☐	☐	☐	☐
Site Designations for Conservation, Landscape and Heritage	☐	☐	☐	☐	☐	☐	☐	☐
Bathing Water Beach Designations (or similar)	☐	☐	☐	☐	☐	☐	☐	☐

Programme of Measures for Good Environmental Status (EC Marine Strategy Framework Directive)	☐	☐	☐	☐	☐	☐	☐	☐
Programme of Measures for Good Ecological Status (EC Water Framework Directive)	☐	☐	☐	☐	☐	☐	☐	☐
Integrated Coastal Management Initiatives	☐	☐	☐	☐	☐	☐	☐	☐
Coastal Erosion and Flood Risk Management	☐	☐	☐	☐	☐	☐	☐	☐
Port and Harbour Powers	☐	☐	☐	☐	☐	☐	☐	☐
Local Byelaws, Orders and Restrictions (including fisheries)	☐	☐	☐	☐	☐	☐	☐	☐
Coastal Concordat (England & Wales)	☐	☐	☐	☐	☐	☐	☐	☐

21.a. You may offer a short explanation for your answer(s) if you wish:

21.b. Do you have any other ideas for legal, policy, non-governmental or social incentives which would enable better coastal stewardship?

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│                             │
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Place-Based Governance

See here for a definition of 'place-based approach'

22. To what extent do you agree with the following statement about a *place-based approach* to coastal governance?

	1 - Don't agree	2	3	4 - Neither agree or disagree	5	6	7 - Strongly agree
"Governance at a scale which links natural coastal processes with people's sense of place will lead to stewardship of a coastal ecosystem"	☐	☐	☐	☐	☐	☐	☐

22.a. You may offer a short explanation for your answer(s) if you wish:

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┌─────────────────────────────┐
│                             │
│                             │
│                             │
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Page 9: THANK YOU & NEXT STEPS

Thank you very much for completing the Round #2 UK Coastal Governance survey.

Next Steps

Following the analysis of the results from this survey, you will receive a Round #2 Delphi Participants Report and invitation to a Round #3 workshop. The workshop(s) will provide an insightful opportunity to meet and discuss UK coastal governance issues with the other participants in this research, identify recommendations and a possible model for enhancing collaborative governance for coastal stewardship in the UK.

Round #3 Workshop(s)

23.   If the Round #3 workshop for this survey is held in **Bristol**, would you participate?

- ⊙ Yes
- ⊙ Possibly
- ⊙ No

23.a.   Are you more likely to participate in a Round #3 workshop if it were held in one of the following locations?

- ⊙ Edinburgh
- ⊙ Newcastle
- ⊙ London
- ⊙ Cardiff
- ⊙ No (Bristol would be easier for me)
- ⊙ None/Other

23.b.   Are you more likely to participate in a Round #3 workshop if it were held in one of the following locations?

- ⊙ Edinburgh
- ⊙ Newcastle
- ⊙ London
- ⊙ Cardiff
- ⊙ No (Bristol would be easier for me)
- ⊙ None / Other

23.c.   Would you be available to attend a Round #3 workshop in Bristol on **Wednesday 4th July 2018**?

○ Yes
○ Possibly
○ No

23.d. Would you be available to attend a Round #3 workshop in Bristol on **Wednesday 4th July 2018**?

○ Yes
○ Possibly
○ No

Page 10: FURTHER INFORMATION & CONTACT

Information about the Round #3 workshop(s) will be issued following closure of this survey, when you will be sent a copy of your own response for future reference. In the meantime, updates will be posted on the UK Coastal Governance webpage

Thanks again for giving your time to be involved in this research.

Natasha

Natasha Bradshaw, Doctoral Researcher, International Water Security Network

University of the West of England (UWE) Bristol

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T: 0117 3286919

2D   R2 REPORT COMMUNICATION

Dear xx

UK Coastal Governance 'Future Insights'

Results Verification by 3rd Sept - Workshop 11th Sept

A huge amount of knowledge has been shared through the UK Coastal Governance research. It has been a privilege to gain insights to so many people's perspectives.

Results

The results of the Round #2 survey are now available and it is time to verify the conclusions. As you are probably aware by now, the Delphi research method engages expert participants by reflecting on the areas of consensus and asking you to (re-)consider your own position.

Verification Step

So there is one more step! Just 10 minutes of your time to finish your input to this research. A series of 'verification statements' have arisen from the analysis to which you are now asked to openly express your own level of support. You should receive an email alongside this from 'Jisc' (the online survey provider) - please let me know if you don't get it.

Workshop

The Round #3 workshop will take place on **Tuesday 11th September** in **Bristol** between **10.30-3.30pm** with refreshments from 10am and lunch provided. Workshop participants will be the first to hear the results of the verification process and discuss how to take the recommendations forwards. Further information attached. Please sign-up here: https://www.eventbrite.com/e/uk-coastal-governance-future-insights-workshop-tickets-48555604119

Whether or not you can attend the workshop, please respond to the results Verification Step. If you don't receive your email from 'Jisc' the online survey provider, please get in touch with me.

I hope you enjoy reading the results and look forward to seeing you at the workshop if you can make it.

Thank you once again for giving your time to this research.

Kind regards,
Natasha

UK Coastal Governance

Future Insights

Round #2 Delphi Participants

SUMMARY REPORT

Natasha Bradshaw

July 2018

REPORT AVAILABLE ON UWE RESEARCH REPOSITORY:

https://uwe-repository.worktribe.com/output/10194351

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APPENDIX 3 R3 Survey, Communications and Report

3A R3 SURVEY INVITATION EMAIL

Dear [x individuals with copy of individuals R2 survey response]

UK Coastal Governance 'Future Insights'
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Workshop
The Round #3 workshop will take place on **Tuesday 11th September** in **Bristol** between **10.30-3.30pm** with refreshments from 10am and lunch provided. Workshop participants will be the first to hear the results of the verification process and discuss how to take the recommendations forwards. Further information attached. Please sign-up here: https://www.eventbrite.com/e/uk-coastal-governance-future-insights-workshop-tickets-48555604119

Whether or not you can attend the workshop, please respond to the results Verification Step. If you don't receive your email from 'Jisc' the online survey provider, please get in touch with me.

I hope you enjoy reading the results and look forward to seeing you at the workshop if you can make it.

Thank you once again for giving your time to this research.

Kind regards,
Natasha

UK Coastal Governance - Future Insights - Results Verification

Page 1: Overview

Results - Verification Step

Over 150 experts from across the UK, with a wide vareity of intrests in the public and private sectors, government, conservation and research, have shared their perspectives on the future for coastal governance.

For the participants involved in this reasearch, this is a verifiction step to confirm the degree of consensus around statements that have been prepared following analysis of the Round #2 survey results.

There are 5 sections containing a total of 19 statements. You simply indicate whether you agree/disagree with each of the statements. It should only take around 10 minutes to complete.

I hope you find the results informative.

Your ongoing commitment to this research is much appreciated.

For further background, please refer to the UK Coastal Governance - Future Insights - **Round #2**

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Summary Report sent to you by email and available here.

The consent you gave at the beginning of the Round #1 survey was for the whole Delphi research process. Ongoing participation is optional, but only the participipants in Round #2 are able to complete this survey, so please remain involved. Your responses will continue to remain anonymous - only the prinicipal researcher can link responses back to individuals through a unique identifier code.

The closing date for this survey is **Monday 3rd September 2018**.

Please contact me if you would like a paper copy of this survey or have any queries: Natasha.Bradshaw@uwe.ac.uk

Page 2: Approach to Governance across the Land-Sea Interface (A)

Background details for the following statements are available in <u>Annex A</u> of the Round #2 Particpants Summary Report.

Top-Down and Bottom-Up Approaches to Governance

1. **To what extent do you agree with the following statement? To improve marine and terrestrial governance for the coast there is a need to:**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Invest more effort in facilitating linkage between top-down and bottom-up approaches	☐	☐	☐	☐	☐
Continue to invest in bottom-up direction and decision-making	☐	☐	☐	☐	☐
A stronger and clearer national framework offering leadership.	☐	☐	☐	☐	☐

Engagement in Decision-Making

2. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
The most supported approaches to governance are those that bring people together through partnership working, stakeholder engagement and co-design/management.	☐	☐	☐	☐	☐
Bottom-up approaches such as community-led decision-making are less supported, but still valued.	☐	☐	☐	☐	☐
Top-down approaches such as communicating decisions and consultation are least supported, but still valued.	☐	☐	☐	☐	☐

Factors Influencing Our Approach to Governance

3. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know

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Statutory approaches should be supported through facilitating networks to better engage with them.	☐	☐	☐	☐	☐

Page 3: Collaboration to Strengthen Coastal Governance (B)

Background details for the following statements are available in Annex B of the Round #2 Particpants Summary Report.

Collaboration Benefits and Challenges

4. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
There is value in seeking to strengthen collaborative efforts across the land-sea interface.	☐	☐	☐	☐	☐

Drivers and Barriers to Collaboration

5. **To what extent do you agree with the following statement? Collaboration maybe strengthened through:**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
A long-term (as opposed to project-based) approach	☐	☐	☐	☐	☐

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Political will	☐	☐	☐	☐	☐
Cross-sector collaboration	☐	☐	☐	☐	☐
Cross-boundary collaboration	☐	☐	☐	☐	☐
Increasing staff capacity	☐	☐	☐	☐	☐
Policy incentives	☐	☐	☐	☐	☐
Legal incentives	☐	☐	☐	☐	☐
Voluntary initiatives.	☐	☐	☐	☐	☐
Collaboration is not incentivised by statutory consultations so they do not require strengthening.	☐	☐	☐	☐	☐

Page 4: Organisations and the Institutional Framework (C)

Background details for the following statements are available in Annex C of the Round #2 Participants Summary Report.

Organisations Driving Collaboration

6. **To what extent do you agree with the following statements?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Collaboration is mainly driven by initiatives established for the purpose of integration , planning or conservation.	☐	☐	☐	☐	☐
Community-driven, voluntary and non-governmental initiatives are effectively driving collaboration at the local and national level.	☐	☐	☐	☐	☐

Government bodies, agencies and groups with more sectoral statutory responsibilities are more limited in their capacity to drive collaboration due to it not being a core part of their remit.	☐	☐	☐	☐	☐

Characteristics of Effective Collaboration

7. **To what extent do you agree with the following statements?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
The right skills to drive effective collaboration include networking, facilitation, leadership and fairness.	☐	☐	☐	☐	☐
Partnership approaches are the strongest characteristic of effective collaboration if combined with staff capacity and continuity.	☐	☐	☐	☐	☐

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The value of targets to drive collaborative effort are worthy of further exploration.	☐	☐	☐	☐	☐

Actions to Improve Clarity and Understanding of Roles and Responsibilities

8. **To what extent do you agree with the following statement? Measures to support formal and informal communication and networking could be strengthened through:**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Creating a single overview role for coastal matters at the national level	☐	☐	☐	☐	☐
Creating a single overview role for coastal matters at the local level	☐	☐	☐	☐	☐
Divesting more responsibility from higher to lower tiers of government	☐	☐	☐	☐	☐
Linking services and co-ordinating management responsibilities, particularly in the government sector.	☐	☐	☐	☐	☐

Leadership for Coastal Governance

9. **To what extent do you agree with the following statement? Leadership could be strengthened:**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
At the UK scale from Ministerial and Government Departments	☐	☐	☐	☐	☐
At the national scale through Marine Planning Authorities, but clarity and drive is needed to consider how coastal governance sits alongside other statutory agencies.	☐	☐	☐	☐	☐
At the regional and local scale by Local Authorities and Coastal Partnerships with IFCAs playing an increasing role.	☐	☐	☐	☐	☐

Collaboration at the Local Community/Ecosystem Scale

10. **To what extent do you agree with the following statements?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
To support collaboration at the local community/ecosystem scale, a cross-sector convening role is needed.	☐	☐	☐	☐	☐
This would build on existing and emerging governance structures such as Coastal, Catchment and Marine Planning Partnerships	☐	☐	☐	☐	☐
It would explore new committee/board structures, particularly at the local level involving NGOs/third sector initiatives.	☐	☐	☐	☐	☐

Page 5: Marine and Terrestrial Planning for the Coast (D)

Background details for the following statements are available in Annex D of the Round #2 Particpants Summary Report.

Effectiveness of Marine Planning for the Coast

11. To what extent do you agree with the following statement?

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
The marine planning system is not very effective across the land-sea interface for the coast at the current time.	☐	☐	☐	☐	☐

Collaboration between Marine Planning Authorities

12. To what extent do you agree with the following statement?

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know

The overlap between the marine and terrestrial planning system to 'secure compatibility' between plans is not effectively encouraging collaboration between planning authorities and stakeholders in the coastal area at the current time.	☐	☐	☐	☐	☐

Options to Improve Collaboration between Marine Planning Authorities

13. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Strengthen resource capacity/expertise through the existing marine and terrestrial planning system, rather than develop a new approach for coastal planning.	☐	☐	☐	☐	☐

14. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Statutory coastal plans nested within marine and terrestrial plans would be welcomed and could build upon existing voluntary coastal plans.	□	□	□	□	□

Leadership for Coastal Planning

15. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
National and regional leadership is sought through improving coastal policy, to provide stronger direction and enabling support and political will for implementation at the local level.	□	□	□	□	□

Page 6: Socio-Legal Mechanisms for Coastal Stewardship (E)

Background details for the following statements are available in Annex E of the Round #2 Particpants Summary Report.

Promoting Coastal Stewardship

16. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Regulatory approaches promote stewardship to some extent, but would be strengthened through a review of the regulatory framework including:	☐	☐	☐	☐	☐
National coastal policy	☐	☐	☐	☐	☐
Statutory coastal plans	☐	☐	☐	☐	☐
Statutory duty towards net environmental/natural capital gain for public benefit	☐	☐	☐	☐	☐
Streamlining existing legislation	☐	☐	☐	☐	☐
Stronger fisheries management.	☐	☐	☐	☐	☐

17. Improving coastal stewardship would also involve bringing together and co-ordinating efforts/initiatives such as:

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Joint marine-terrestrial or coastal plans	☐	☐	☐	☐	☐
Linking marine planning with inshore fisheries management	☐	☐	☐	☐	☐
Joining-up catchment and coastal co-ordination	☐	☐	☐	☐	☐
Empowering local authorities.	☐	☐	☐	☐	☐

18. Addressing the need for societal/behavioural change to incentivise stewardship of coastal resources by:

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know

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	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know
Focusing on mechanisms which will build trust in local communities.	☐	☐	☐	☐	☐
Seeking to employ (a network of) local stewards promoting a sense of public/collective ownership.	☐	☐	☐	☐	☐
Securing longer-term finance and investment in communication rather than a project-based approach.	☐	☐	☐	☐	☐
Building knowledge, skills and education.	☐	☐	☐	☐	☐

Place-Based Coastal Governance

19. **To what extent do you agree with the following statement?**

Please don't select more than 1 answer(s) per row.

	1 DISAGREE strongly	2 Disagree	3 Agree	4 AGREE strongly	Don't Know

Governance at a scale which links people's sense of place with the coastal ecosystem will improve stewardship action.	☐	☐	☐	☐	☐

Page 7: Next Steps

Thank you for indicating your support (or otherwise) for these provisional recommendations.

The **Round #3 workshop** is taking place at UWE Bristol on **Tuesday 11th September 2018**. Discussion will be based on the areas of consensus found through this verification process. Where good levels of consensus have been found, the workshop will enable further exploration of options for implementation. Further information available <u>here</u>. You are invited to attend: please **register <u>here</u>**.

A final report from the verification step and R#3 workshop conclusions will be made available to all participants.

Thank you very much for your time.

Natasha Bradshaw

Doctoral Researcher, UWE Bristol

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UK Coastal Governance

Future Insights

Round #3 Delphi

SUMMARY REPORT

Natasha Bradshaw

December 2018

CONTENTS

3D   BOS-JISC SURVEY LIST (R1, R2, R3)

REF	Status	Name	Responses	Open	Close	URL
Z	closed	UK Coastal Governance - Future Insights - Results Verification	89	31/07/2018 18:00	06/09/2018 00:30	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-verification-step
Y	closed	UK Coastal Governance - Future Insights: Verification (Pilot_EHTA) (copy)_OPEN URL	3	27/07/2018 18:15	30/08/2018 14:30	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-future-insights-verification-pil
X	closed	UK Coastal Governance (Round #2) FINAL	115	09/04/2018 11:00	14/05/2018 23:59	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-round-2-_post-pilot_1-copy
P	closed	UK Coastal Governance (Round #2) PILOT for Externals	10	19/03/2018 10:00	06/04/2018 23:59	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-round-2-draft_1-for-pilot-copy
O	closed	UK Coastal Governance (Round #2) DRAFT_1 FOR PILOT	3	14/03/2018 17:00	23/03/2018 15:55	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-round-2-draft-for-pilot
N	closed	UK Coastal Governance (Round #1) - FINAL (copy)_OPEN URL	23	09/09/2017 08:00	28/10/2017 00:00	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-round-1-final-copy_final-te
M	closed	UK Coastal Governance (Round #1) - FINAL	95	06/09/2017 19:00	11/10/2017 23:59	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-round-1-final-draft_2nd-pilot
L	closed	UK Coastal Governance (Round #1) - FINAL (copy) Tranche B	55	14/09/2017 19:00	11/10/2017 23:59	https://uwe.onlinesurveys.ac.uk/uk-coastal-governance-round-1-final-copy-tranche
K	closed	UK Coastal Stewardship (Round 1) - 1st pilot	10	05/07/2017 10:21	04/08/2017 10:21	https://uwe.onlinesurveys.ac.uk/uk-coastal-stewardship-round-1-copy

APPENDIX 4   Workshop

4A   WORKSHOP INVITATION

UK COASTAL GOVERNANCE
FUTURE INSIGHTS WORKSHOP

Join fellow UK coastal experts

Unique insights

Debate recommendations

Next Steps

Inform future governance

TUESDAY 11TH SEPTEMBER
UWE BRISTOL BUSINESS SCHOOL 10.30am–3.30pm

Over 150 experts from across the UK, with a wide variety of interests in the public and private sector, government, conservation and research, have shared their perspectives on the future for coastal governance.

Join the UK Coastal Governance workshop and be the first to gain greater insight into the results, share your perspective and learn about others views. This is the final stage of input to this research – it reveals unique insights that are timely and valuable to inform future planning and management of the UK coast.

The day will include results of the research and presentation of provisional recommendations. Discussion will focus on implementing:

- Approaches to governance across the land-sea interface
- Collaboration to strengthen coastal governance
- Organisations and the institutional framework
- Marine and terrestrial planning for the coast
- Socio-legal mechanisms for coastal stewardship

Please register via Eventbrite here.
Travel information here.
For further information please contact: Natasha.Bradshaw@uwe.ac.uk

International Water Security Network

This research is part of a PhD supervised by Dr Thomas Appleby and Professor Enda Hayes, members of the International Water Security Network http://www.watersecuritynetwork.org/ at the University of the West of England (UWE), Bristol, UK. The research is funded by Lloyd's Register Foundation, a charitable foundation, helping to protect life and property by supporting engineering-related education, public engagement and the application of research. For more information see: www.lrfoundation.org.uk
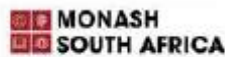
UWE BRISTOL

Room 6X100 Bristol Business School

University of the West of England Frenchay Campus Coldharbour Lane Bristol BS16 1QY

0117 3286919

Workshop attendance by invitation only

Funded by	Led by	In partnership with	
Lloyd's Register Foundation	UWE Bristol	MONASH SOUTH AFRICA	THE UNIVERSITY OF ARIZONA

4B   WORKSHOP PROGRAMME

UK COASTAL GOVERNANCE WORKSHOP

TUESDAY 11TH SEPTEMBER

RM 6X100, UWE BRISTOL BUSINESS SCHOOL

WORKSHOP PROGRAMME

10.00   **ARRIVAL & REFRESHMENTS**

10.30   **UK Coastal Governance research recommendations and objectives for the day**

Presentation by Natasha Bradshaw on the provisional recommendations, verification survey results, objectives and logistics for the workshop.

11.00   **Implementing the Recommendations (Session 1)**

Table groups review verification survey results and discuss ideas for implementation.

- *Approaches to Governance Across the Land-Sea Interface (A)*
- *Collaboration to Strengthen Coastal Governance (B)*
- *Organisations and the Institutional Framework (C)*

12.15   **LUNCH**

13.00   **Implementing the Recommendations (Session 2)**

Table groups review verification survey results and discuss ideas for implementation.

- *Marine and Terrestrial Planning for the Coast (D)*
- *Socio-Legal Mechanisms for Coastal Stewardship (E)*

14.00   **TEA BREAK**

14.15   **Group Discussion and Voting**

Presentation of collated ideas for implementation and e-voting.

15.15   **Closing Remarks**

15.30   **Depart**   *Please note this is a provisional agenda and timings may vary.*

4C   WORKSHOP PLAN

UK Coastal Governance – Future Insights   WORKSHOP PLAN

Objectives of the Day

A set of recommendations have emerged from this research in the form of statements, each with a level of consensus shown through the recent verification survey. The results provided to workshop participants provide the basis for discussion. The objective of the workshop is to:

- Review and discuss the results
- Identify specific actions that could be taken to implement the recommendations.

Format of the Workshop

An opening plenary with a welcome and presentation by Natasha, followed by briefing participants on the format of the workshop.

Table group discussions supported by Topic Scribes and Table Facilitators covering five themes. Participants will be in four groups (5-6 participants per table) and will get up and move to another table for another topic discussion. Facilitators go with their groups of participants. Scribes stay on the same table and become the 'topic expert' to report back to Natasha.

Final session of the day involves Topic Scribes feeding back from their four table-group discussions: 5 minutes, followed by voting facilitated by Natasha.

Role of Facilitators

- Please be clear about how you are going to move around the room in Sessions 1 & 2 as you are taking your first table group of participants with you.
- Keep to time: 30 mins per topic. Give participants 2 mins at the beginning of each topic to read the recommendations. Be led by them on where they want to start discussion.
- Not every question has to be covered by every table group – let them provide the expertise they can offer. Avoid spending too much time going over the same point.
- Support the Topic Scribe: you have a copy of the Implementation Action tables with prompts to help the discussion flow and keep targeted.
- After the first table group, seek the Topic Scribe's guidance on where to start discussion with the next table group.

Role of Topic Scribes

- You will stay on the same table throughout Session 1 & 2: participants will come to you with their facilitator
- Record as much of the discussion as possible on blank paper/white-boards: make sure you put your TOPIC LETTER and TABLE NUMBER on all notes.
- If participants are wearing a badge, please put their initials against their comments/actions.
- Write-up clear actions on A2 sheets for feedback to plenary @1415
    - Actions don't have to gain clear consensus to be written-up
    - Look for innovative ideas and realistic ways of acting on the recommendations.
- It is essential that you meet Natasha at 1215 before you go for lunch and 1400 to feedback your A2 sheets so the info can be entered into ppt. for the final plenary.
- Be prepared to feedback the 3-5 actions you have shared with Natasha (from the discussion across your four table groups) in the final plenary starting at 1415. Natasha will organise each action to be voted on to test consensus/priority.

Session 1 & 2 organisation

Topic Scribe	Topic
Emma Bean	A: Approach to Governance + B: Collaboration
Lucy Taylor	C: Organisations and the Institutional Framework
Amy Wilcocks	D: Marine & Terrestrial Planning for the Coast
Tom Appleby	E: Socio-Legal Mechanisms for Coastal Stewardship.

Facilitators	Starting Topic (move to the next topic in alphabetical order)
NB/RM (tbc)	AB →C →D →E
Alan Terry	C →D →E →AB
Alex Curd	D →E →AB →C
Enda Hayes	E →AB →C →D

Table Groups

Table Group information removed to retain participant confidentiality.

TIMETABLE

TIME	DURATION	PURPOSE	WHAT HAPPENS	MATERIALS NEEDED	LEAD
0830	30 mins	Check layout, start PC & test TP	NB arrive & set-up		NB
0930	20 mins	Briefing	Scribes and Facilitators confirm	Brains!	NB
0945	1130 collection		Refreshments arrive		UWE Facilities
1000	30 mins	Arrival and Refreshments	Participants welcomed	Programme Results Badge (optional)	Welcome Desk – NB (EH/TA)
1030	30 mins	START PLENARY	Presentation. Introduce scribes and facilitators (show of hands)	Powerpoint Round #1 and #2 reports. Results Implementation Actions	NB
1055	5 mins	Clarification	Q&A		NB
1100	75 mins	SESSION 1: TABLE DISCUSSIONS Implementation Actions	Table Groups	Blank A2 sheets OR white board & pens. Implementation Actions (A2) to capture feedback & pens.	Facilitators and Scribes
1215	45 mins	LUNCH	Participants move to Room 6X100/Balcony		UWE Facilities JT check @1200
	15 mins	Feedback	Scribes provide feedback to Natasha for writing up into ppt. for e-voting	Implementation Actions (A2) from two table discussions	Scribes & NB
1300	60 mins	SESSION 2: TABLE DISCUSSIONS Implementation Actions	Table Groups	Blank A2 sheets OR white board & pens. Implementation Actions (A2) to capture feedback & pens.	Facilitators and Scribes
1400	15 mins	TEA BREAK	Scribes provide feedback to Natasha for writing up into ppt. for e-voting. Facilitators write-up on flip-charts	Implementation Actions (A2) from two table discussions	
1405	5 mins	E-voting set-up	One remote control per participant	Remote controls in Turning Point bag	TT hand-out
1415	60 mins	FINAL PLENARY	Scribes feedback E-voting Ranking (if time)	Top 3-5 actions from each Topic Scribe.	NB, Scribes & Facilitators
1515	15 mins	SUM-UP Thank You	NB speaking		NB
1530		CLOSE			
1600*	30 mins	TIDY-UP	A2 sheets to NB Photos of any white-boards used. Flip-charts to NB if used.		NB

*Aisling Lannin (MMO Marine Pioneer lead) and possibly Rosanna Mann (Defra) to meet TA & EB.

4D   R3 RESULTS TABLES

UK Coastal Governance Future Insights Research: Verification Survey Results   **September 2018**

TOPIC A: APPROACH TO GOVERNANCE ACROSS THE LAND-SEA INTERFACE

Question in Verification Survey	Statement *Green = Consensus >70% (darker green >80%)* *Blue = Mixed response <70% consensus* *Red = No consensus < 50%*	Total Participants Response DS = Disagree Strongly/ D = Disagree/ A= Agree/ AS = Agree/ Strongly/ DK – Don't Know n = number of participants % = proportion of responses					Total Consensus Agree + Strongly Agree	
		DS	**D**	**A**	**AS**	**DK**	**n = number of participants** (out of 89*)	**% of participants**
Top-Down and Bottom-Up Approaches to Governance To improve marine and terrestrial governance for the coast there is a need to:								
1.1	Invest more effort in facilitating linkage between top-down and bottom-up approaches;	0	3 3%	27 31%	56 64%	1 1%	**83**	**95%**
1.2	Continue to invest in bottom-up direction and decision-making;	1 1%	7 8%	39 46%	32 38%	6 7%	**71**	**83%**
1.3	A stronger and clearer national framework offering leadership.	0	2 2%	32 38%	46 55%	4 5%	**78**	**93%**
Engagement in Decision-Making								
2.1	The most supported approaches to governance are those that bring people together through partnership working, stakeholder engagement and co-design/management.	0	2 2%	17 19%	69 78%	1 1%	**86**	**97%**
2.2	Bottom-up approaches such as community-led decision-making are less supported, but still valued.	1 1%	19 22%	55 63%	9 10%	3 3%	**64**	**73%**
2.3	Top-down approaches such as communicating decisions and consultation are least supported, but still valued.	1 1%	21 24%	53 60%	9 10%	4 5%	**62**	**70%**
Factors Influencing Our Approach to Governance								
3	Statutory approaches should be supported through facilitating networks to better engage with them.	0	2 2%	37 42%	43 49%	6 7%	**80**	**91%**

***89/115 participants from the Round #2 survey completed the Verification Step (77%). It was not compulsory for every participant to answer every question.

Of the 168 eligible participants in the Round #1 survey (September 2017), 53% completed the whole research process.

TOPIC B: COLLABORATION TO STRENGTHEN COASTAL GOVERNANCE

Question in Verification Survey	Statement Green = Consensus >70% (darker green >80%) Blue = Mixed response <70% consensus Red = No consensus < 50%	Total Participants Response DS = Disagree Strongly/ D = Disagree/ A= Agree/ AS = Agree/ Strongly/ DK – Don't Know n = number of participants % = proportion of respondents).					Total Consensus Agree + Strongly Agree	
		DS	D	A	AS	DK	n = number of participants (out of 89)	% of participants
Collaboration Benefits and Challenges								
4	There is value in seeking to strengthen collaborative efforts across the land-sea interface	0	0	22 25%	67 75%	0	**89**	**100%**
Collaboration maybe strengthened through:								
5.1	A long-term (as opposed to project-based) approach;	0	1 1%	25 28%	62 70%	1 1%	**87**	**98%**
5.2	Political will;	0	3 3%	35 39%	51 57%	0	**86**	**96%**
5.3	Cross-sector collaboration;	0	1 1%	34 38%	53 60%	1 1%	**87**	**98%**
5.4	Cross-boundary collaboration;	0	1 1%	34 38%	53 60%	1 1%	**87**	**98%**
5.5	Increasing staff capacity;	0	4 5%	33 37%	46 52%	6 7%	**79**	**89%**
5.6	Policy incentives;	0	3 3%	53 60%	30 34%	3 3%	**83**	**94%**
5.7	Legal incentives;	0	8 9%	44 50%	28 32%	8 9%	**72**	**82%**
5.8	Voluntary initiatives;	0	9 10%	60 68%	17 19%	2 2%	**77**	**87%**
5.9	Collaboration is not incentivised by statutory consultations so they do not require strengthening.	6 7%	40 45%	22 25%	5 6%	16 18%	**27**	**31%**

TOPIC C: ORGANISATIONS AND THE INSTITUTIONAL FRAMEWORK

Question in Verification Survey	Statement Green = Consensus >70% (darker green >80%) Blue = Mixed response <70% consensus Red = No consensus < 50%	Total Participants Response DS = Disagree Strongly/ D = Disagree/ A= Agree/ AS = Agree/ Strongly/ DK – Don't Know n = number of participants % = proportion of respondents)					Total Consensus Agree + Strongly Agree	
		DS	D	A	AS	DK	n = number of participants (out of 89)	% of participants
Organisations Driving Collaboration								
6.1	Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation.	0	14 16%	54 61%	13 15%	8 9%	**67**	**76%**
6.2	Community-driven, voluntary and non-governmental initiatives are effectively driving collaboration at the local and national level.	2 2%	24 27%	41 46%	16 18%	6 7%	**57**	**64%**
6.3	Government bodies, agencies and groups with more sectoral statutory responsibilities are more limited in their capacity to drive collaboration due to it not being a core part of their remit.	2 2%	13 15%	44 50%	23 26%	6 7%	**67**	**76%**
Characteristics of Effective Collaboration								
7.1	The right skills to drive effective collaboration include networking, facilitation, leadership and fairness.	0	1 1%	36 40%	52 58%	0	**88**	**98%**
7.2	Partnership approaches are the strongest characteristic of effective collaboration if combined with staff capacity and continuity.	0	2 2%	25 28%	58 65%	4 5%	**83**	**93%**
7.3	The value of targets to drive collaborative effort are worthy of further exploration.	2 2%	10 11%	50 56%	19 21%	8 9%	**69**	**77%**

Actions to Improve Clarity and Understanding of Roles and Responsibilities.							
Measures to support formal and informal communication and networking could be strengthened through:							
8.1	Creating a single overview role for coastal matters at the national level.	0	16 18%	45 50%	19 21%	9 10%	**64**	**71%**
8.2	Creating a single overview role for coastal matters at the local level.	1 1%	18 20%	36 40%	23 26%	11 12%	**59**	**66%**
8.3	Divesting more responsibility from higher to lower tiers of government.	3 3%	11 12%	40 46%	14 16%	20 23%	**54**	**62%**
8.4	Linking services and co-ordinating management responsibilities, particularly in the government sector.	0	0	47 53%	35 40%	7 8%	**82**	**93%**

Leadership for Coastal Governance could be strengthened:							
9.1	At the UK scale from Ministerial and Government Departments;	0	5 6%	45 51%	30 34%	8 6%	**75**	**85%**
9.2	At the national scale through Marine Planning Authorities, but clarity and drive is needed to consider how coastal governance sits alongside other statutory agencies;	1 1%	4 5%	49 56%	29 33%	5 6%	**78**	**89%**
9.3	At the regional and local scale by Local Authorities and Coastal Partnerships with IFCAs playing an increasing role.	1 1%	3 3%	40 46%	41 47%	3 3%	**81**	**93%**
Collaboration at the Local Community/Ecosystem Scale.							
10.1	To support collaboration at the local community/ecosystem scale, a cross-sector convening role is needed.	0	4 4%	36 40%	45 51%	4 5%	**81**	**91%**
10.2	This would build on existing and emerging governance structures such as Coastal, Catchment and Marine Planning Partnerships.	0	2 2%	44 49%	34 38%	9 10%	**78**	**87%**
10.3	It would explore new committee/board structures, particularly at the local level involving NGOs/third sector initiatives.	0	11 13%	39 44%	24 27%	14 16%	**63**	**71%**

TOPIC D: MARINE AND TERRESTRIAL PLANNING FOR THE COAST

Question in Verification Survey	Statement *Green = Consensus >70% (darker green >80%)* *Blue = Mixed response <70% consensus* *Red = No consensus <50%*	Total Participants Response DS = Disagree Strongly/ D = Disagree/ A= Agree/ AS = Agree/ Strongly/ DK – Don't Know n = number of participants % = proportion of respondents)					Total Consensus Agree + Strongly Agree	
		DS	D	A	AS	DK	n = number of participants (out of 89)	% of participants
Effectiveness of Marine Planning for the Coast								
11	The marine planning system is not very effective across the land-sea interface for the coast at the current time.	1 1%	11 13%	43 48%	25 28%	9 10%	68	76%
Collaboration Between Marine Planning Authorities								
12	The overlap between the marine and terrestrial planning system to 'secure compatibility' between plans is not effectively encouraging collaboration between planning authorities and stakeholders in the coastal area at the current time.	1 1%	9 10%	42 47%	23 26%	14 16%	65	73%
Options to Improve Collaboration Between Marine Planning Authorities								
13	Strengthen resource capacity/expertise through the existing marine and terrestrial planning system, rather than develop a new approach for coastal planning.	1 1%	6 7%	39 44%	34 38%	9 10%	73	82%
Scale and Connectivity Between Marine and Terrestrial Plans								
14	Statutory coastal plans nested within marine and terrestrial plans would be welcomed and could build upon existing voluntary coastal plans.	2 2%	4 5%	46 52%	26 29%	11 12%	72	81%
Leadership for Coastal Planning								
15	National and regional leadership is sought through improving coastal policy, to provide stronger direction and enabling support and political will for implementation at the local level.	0	4 5%	45 51%	32 36%	8 9%	77	87%

TOPIC E: SOCIO-LEGAL MECHANISMS FOR COASTAL STEWARDSHIP

Question in Verification Survey	Statement *Green = Consensus >70% (darker green >80%)* *Blue = Mixed response <70% consensus* *Red = No consensus < 50%*	Total Participants Response DS = Disagree Strongly/ D = Disagree/ A= Agree/ AS = Agree/ Strongly/ DK – Don't Know n = number of participants % = proportion of respondents)					Total Consensus Agree + Strongly Agree	
		DS	D	A	AS	DK	n = number of participants (out of 89)	% of participants
Promoting Coastal Stewardship								
16.1	Regulatory approaches promote stewardship to some extent, but would be strengthened through a review of the regulatory framework – including:	0	1 1%	57 70%	16 20%	7 9%	**73**	**90%**
16.2	National coastal policy;	0	5 6%	50 57%	23 26%	10 11%	**73**	**90%**
16.3	Statutory coastal plans;	1 1%	5 6%	46 53%	19 22%	16 18%	**65**	**75%**
16.4	Statutory duty towards net environmental/natural capital gain for public benefit;	2 2%	3 3%	37 43%	29 34%	15 17%	**66**	**77%**
16.5	Streamlining existing legislation;	1 1%	6 7%	46 53%	16 18%	18 21%	**62**	**71%**
16.6	Stronger fisheries management.	0	5 6%	26 30%	24 28%	31 36%	**50**	**58%**
Improving coastal stewardship would also involve bringing together and coordinating efforts/initiatives such as:								
17.1	Joint marine-terrestrial or coastal plans;	0	6 7%	49 56%	26 30%	6 7%	**75**	**86%**
17.2	Linking marine planning with inshore fisheries management;	1 1%	8 9%	38 44%	28 33%	11 13%	**66**	**77%**
17.3	Joining-up catchment and coastal co-ordination;	0	1 1%	52 60%	30 35%	4 5%	**82**	**95%**
17.4	Empowering local authorities.	2 2%	4 5%	48 55%	22 25%	11 13%	**70**	**80%**

Addressing the need for societal/behavioural change to incentivise stewardship of coastal resources by:								
18.1	Focusing on mechanisms which will build trust in local communities;	0	2 2%	47 53%	35 40%	4 5%	**82**	**93%**
18.2	Seeking to employ (a network of) local stewards promoting a sense of public/collective ownership;	1 1%	10 11%	36 41%	25 28%	16 18%	**61**	**69%**
18.3	Securing longer-term finance and investment in communication rather than a project-based approach;	0	5 6%	28 32%	46 52%	9 10%	**74**	**84%**
18.4	Building knowledge, skills and education.	0	0	36 41%	50 57%	2 2%	**86**	**98%**
Place-Based Governance								
19.1	Governance at a scale which links people's sense of place with the coastal ecosystem will improve stewardship action.	1 1%	0	34 38%	50 56%	4 5%	**84**	**94%**

4E   WORKSHOP RESULTS

TOPIC A: APPROACH TO GOVERNANCE ACROSS THE LAND-SEA INTERFACE

| Question in Verification Survey | Statement

Green = Consensus >70% (darker = strongest >80%)

Blue = Mixed response <70% consensus

Red = No consensus < 50% | Total Consensus

Agree + Strongly Agree | **IMPLEMENTATION**

We are seeking information on HOW and WHOM.
Give time for participants to read the results they have.
Ask them to propose actions on any recommendations – prompt if necessary. | | |
|---|---|---|---|---|---|
| **TOPIC SCRIBE: Emma Bean** Verified write-up 13/11/2018 | | n = | % | **PROPOSED ACTION** | **BY WHOM** | **EXAMPLE OF GOOD PRACTICE?** |

Top-Down and Bottom-Up Approaches to Governance. To improve marine and terrestrial governance for the coast there is a need to:

1.1	Invest more effort in facilitating linkage between top-down and bottom-up approaches;	83	95%	[1st table group]

It's about **power** – who has the power? How do we get to government even if we're good at the bottom-up? (SC)
Bottom-up have to be STRONG to make it work e.g. getting an engineer to look at an area and including it in coastal monitoring. After that comes drive and local authority expertise – we haven't got expertise to influence local/regional/national politics. Cynical about short-termism of politics (e.g. kelp consultation where all local expertise ignored). Local people are often ignored in favour of desktop studies. Finance is problem of local bottom-up approaches (RH).

Depends upon **trust** – trust you'll be listened to and trust people will participate (BW). Agreed– need to keep up communication with local communities (AL) and it takes time (RH). Need to invest more time in linkages (to build trust), but statutory bodies don't necessarily have this time or capacity (DT). | | |
| 1.2 | Continue to invest in bottom-up direction and decision-making; | 71 | 83% | How to keep local partnerships going – it's very easy for **statutory funding** to be cut (AK).
Difficult for small communities to come back strongly against large multi-nationals or industries (e.g. mobile gear fishermen). SEPA is being leaned upon heavily (SC).

MACAA & MCZs an example of flipping between bottom-up and top-down approaches – the flipping damaged partnerships and the build-up of trust (AK).

Lots of MCZ meetings which revert to **statutory remit** and no-one is happy (DT). Huge investment in Scotland to include stakeholders in MPAs and then all went silent, which breeds cynicism (SC). Implementation and management on the ground becomes less successful if it follows that silent period (BW). | | |
| 1.3 | A stronger and clearer national framework offering leadership. | 78 | 93% | Coastal monitoring means we are continually feeding in so we've got continuing contact so feel valued – need to get local people involved [they are 'sustainable' i.e. always there and are volunteers]. Then when you need to ask them questions you've got them there ready – people feel **ownership**. Have to have purpose, you've got to feel valued as a local participant. → could replicate monitoring around coastline on local basis, Glos SES is an example of this (RH).

Issue with people feeling like they've been **consulted but not listened to** – how do **community influence policy** which then influences statutory bodies? (SC) Just need to keep going (RH) Need to use people from local forum (e.g. Steart - AL). How impact on decision-making? There may not be a way to **reflect local interests in statutory process** for example. Is there a route through NGOs? (AK) Steart Forum brings everyone into a room – local, NGOs, statutory bodies – all work together (AL). Yes – 'we learn what your problems are and you learn what we are looking for' (RH).

National Framework [1.3]
Scotland has national marine plan. Problem is power – how do you get to powerful table that makes decisions? (SC). We feed up to regional flood & coastal committees and they feed upwards (RH). Power is in the local/regional/small-scale: the national framework is at risk of being ignored because it doesn't work locally (DT). National framework might work in certain circumstances (BW). Need to recognise everywhere is different (AL). At what point does national need overcome local needs? (SC). Should be two-way between people you feed into (RH). At the moment, there is no real way for locals to say what they want for a site. Some kind of national policy saying 'this is important, this should be done' means it's more likely to carry on when funding cuts considered e.g. **25yr Plan is big driver** – if we were told needed to set up group to get this done then this would be given precedence (AK). | SEPA

Role for NGOs?

Statutory bodies

A1: Regular local monitoring and engagement sustained through national policy requirement (linked to 25yr Environment Plan) | Scottish Marine Plan

Steart Forum

25yr Environment Plan |

Q1   Prompts for Topic Scribe

How do we improve linkage between top-down and bottom-up approaches – does it require new leadership, building on existing or new mechanisms?

How could finance for more bottom-up decision-making be sourced?

What does a clearer national framework look like? A review of policy and/or legislation? Sharing best practice? Who should lead?

See TOPIC C Q9.1-9.3 (Organisations and Institutions) suggested who should take a stronger lead at each scale:
- *UK – Ministerial & Gov Depts*
- *National – Marine Planning Authorities*
- *Regional and Local – Local Authorities, Coastal*

Engagement in Decision-Making

2.1	The most supported approaches to governance are those that bring people together through partnership working, stakeholder engagement and co-design/ management.	86	97%	[2nd table group] Most work delivered through partnership working, but schemes stop at the point we take water out of the river – there's no join up with effects downstream. We aren't driven internally to do that - don't have right people in partnership – decision-making groups have no input from marine groups. Catchment Partnerships and Estuary Partnerships – do they ever sit together in the same room? It comes down to top drivers/time (DS). Attendance at meeting as IFCA rep – Biosphere in North Devon is good at bringing land and sea together – good projects getting funding, but ultimately it comes back to legislative support and at this level others come in and so may not get what original partnerships wanted. IFCAs are seen as an example of top-down engagement, but are actually based on a partnership approach (SC). Perspective is based on history – how do we get people past that? Different organisations come in on a piecemeal basis so it is a continual process, not start & stop (AL). People get stuck in their own prejudices when they are in a group – people get defensive (SC). Need to present a platform that encourages sharing and equality e.g. fishermen's knowledge is not accepted in decision-making or is all focused on science; this breeds defensiveness (AL). IFCA model gets people together to make difficult decisions, together with public through consultations (SC). Agree it's a good model. If have no responsibility to anybody else then have no need to engage them. Statutory mandate can be used as excuse not to include others (AL).	**Q2 Prompts for Topic Scribe** Do you have any observations about the scale of approach which has emerged from this research (see diagrams on next page), illustrating top-down to bottom-up approaches to engagement in decision-making? Is it useful? Are there any actions to take forward? *Focus on definition of terms and understanding 04-08 e.g. different interpretations of stakeholder engagement/participatory and partnership agreement vs network.* The most support for a top-down approach is at the English regional scale. How could this be realised?
2.2	Bottom-up approaches such as community-led decision-making are less supported, but still valued.	64	73%	North Devon Biosphere illustrates that there are a lot of interested people in one area. In South Devon there are 8 estuaries with lots of different interests – so the same approach may not work in other areas. Biosphere model may be good but not necessarily apply everywhere (SC). Catchment Partnerships could be another way of doing this, but some are much stronger than others. Funding is often the basis of strength (e.g. SWW pays people to manage areas). Partnerships such as the WCRT deliver projects for SWW, but are not a regulator. If give them *power* then have to give them *responsibility* e.g. for compliance (DS). A Coastal Trust? Depends on funding and number of responsibilities given to a Trust; if give them too much then might get too broad (SC). Rivers Trusts really good at finding cash because they have to (DS). People could set up CIO – have ability to bring in money from different sources to do things like research (SC).	**A2: Bring people together through shared vision (e.g. a biosphere reserve) underpinned by appropriate governance structure which attracts sustainable finance.** **Provides middle-ground (local government/county**
2.3	Top-down approaches such as communicating decisions and consultation are least supported, but still valued.	62	70%	Get vision right and find governance structure that did co-design/management really well and then had an independent charitable organisation through which to run funding. Could each choose what interested in (need to bring together all organisations, like IFCA, private companies, NGOs…) but all together set priorities – would have to have it at all scales e.g. in landscape pioneer found really incompatible uses of funding i.e. different objectives/scale project work effectively cancelling each other out. This is like the biosphere [general agreement]. Allows thinking beyond people and towards nature. Bioshpere is not statutory, but has a charitable organisation attached. Comes from Local Government so sort of a middle-way; not totally top-down or bottom-up. Lots of people feed in. Bioshpere doesn't have a big marine designation like Lyme Bay and no huge population, but has motivated people. People need to want to be part of it – need strong vision. (AL)	

Factors Influencing Our Approach to Governance

3	Statutory approaches should be supported through facilitating networks to better engage with them.	80	91%	[3rd table group]		

[3rd table group]

Reverse bonfire of the quangos – used to have bodies that joined up bottom and top, but these are first to go in budget cuts – right across statutory sector, austerity has centralised power in top. So many of the quangos that went were about facilitation and joining e.g. Sustainable Development Commission (ME).

In South Devon there are well functioning Estuary Forum groups, but nothing to join them up. Would be good to have encouragement to organisations/bodies to engage with these forums – this leads back to AKs' 25yr Env Plan point [see 1.3 above] (NM). PC agreed but noted that they would need funding for doing it. Need to back it with resources. NM noted that local authorities pay him to turn up to meetings so they don't have to themselves, but one person can't represent them all.

Somehow, the bottom-up approach needs to be taken seriously – Devon Maritime Forum (DMF)* is a good forum and could be used to bring people together to benefit statutoty authorities; they need to be trained to value bottom-up thinking (FS).

As funding is dwindling, everybody is chasing same funds. Estuaries networking started from EN but that's dried up. Latest fashion is Catchment-Based Approach (CaBA), but that funding is dwindling (NM). CaBA is based on a statutory duty under WFD – so need that underlying duty because discretions become too easy to put to bottom of the pile (PC).

If setting up a network it needs to market itself and be proactively public to capture the right people. People don't seem to know about biosphere or what area it covers (FS). Devon Forum was very good at communicating because facilitator was very good at it. Need for training people to network as openly and inclusively as possible.

Some structure is required – S Africa had quotas for management, they set proportions of representation across sectors in water management. Need framework that facilitates community representation. This was in legislation - a strength that the principles and some of the structure were laid out in legislation and then it was left to local interests to sort out delivery. But this relies on willingness of central government to relinquish power (ME).

Fishing authority 50% local authority & 50% fishing interests – worked only when individuals represented their body/sector well and fed back well to those they were representing. Statutory structure is therefore reliant on people involved in authority (PC).

Nolan Commission (NC) – in our village the Parish Council resigned on bloc because had to declare interests. NC is no longer being observed – need to rigourously declare vested (pecuniary) interests (ME).

Need for well informed people to be able to express their views/expertise in an open forum (PC). Need to be drawn from a broad base (FS).

Long term support and funding is key – need budget – where does this come from (NM).

*DMF jointly financed from Devon County Council and brought people together from north and south and informed each other on issues, not for any particular statutory body, but for each other (FS). DMF was almost like a newsletter in one function. Coastal Officer of DCC was main driver (NM).
→ agreement that County level worked well to drive forum. Informed people and allowed more robust understanding to people, which allowed those people to make better decisions in their own fields (FS). Wales Coastal & Maritime Partnership (WCMP) was similar, had statutory bodies on it to meet and discuss issues in an advisory capacity. Wales Government dissolved it and brought it more under its control – so more top-down focus (PC).

County Level

Q3   Prompts for Topic Scribe

Key Q

Which existing or new networks should be supported to improve engagement in statutory consultations? (Cross-ref Q5.9 re: no consensus about strengthening statutory consultations & Q6.3 re: limited capacity).

Estuary Forums

25yr Environment Plan

Devon Maritime Forum

Catchment Based Approach & Water Framework Directive.

North Devon Biosphere

Wales Coastal & Maritime Partnership

TOPIC B: COLLABORATION TO STRENGTHEN COASTAL GOVERNANCE

Question in Verification Survey	Statement	Total Consensus	IMPLEMENTATION		
	Green = Consensus >70% (darker = strongest >80%) Blue = Mixed response <70% consensus Red = No consensus < 50%	Agree + Strongly Agree	*We are seeking information on HOW and WHOM.* *Give time for participants to read the results they have.* *Ask them to propose actions on any recommendations – prompt if necessary.*		
TOPIC SCRIBE: Emma Bean Verified write-up 13/11/2018		n =	%	**PROPOSED ACTION**	**BY WHOM**	**EXAMPLE OF GOOD PRACTICE?**

Collaboration Benefits and Challenges

4	There is value in seeking to strengthen collaborative efforts across the land-sea interface	89	100	*No need to discuss.*		

Drivers and Barriers to Collaboration - Collaboration maybe strengthened through:

5.1	A long-term (as opposed to project-based) approach;	87	98%	[4th group] Coastal Forums – Dorset Coast Forum is good – but need **economics** in place – need reliable funding. Need mutual interest from everybody in making things happen (PH).		
5.2	Political will;	86	96%	First of all needs to be a need and then a statutory duty to address need. Because statutory approach tends to come from environment it doesn't involve everyone – need to **involve social, economic, cultural etc. needs as statutory responsibility** (BS).		
5.3	Cross-sector collaboration;	87	98%	Integrated Coastal Zone Management (**ICZM**) is what we need, what would it look like in UK? Integrated marine resources management e.g. bring fisheries management into picture for others managing in marine area. We regularly talk to all involved in Thames Estuary so brings all these together. Moving towards generating coastal voice – strong aligned vision for coast (AP). Need a national strategy to integrate all these; but shouldn't be from DEFRA: problem is DEFRA has been seen as lead, which makes it too environmental: transport comes in, energy etc. Need to go above these to **Cabinet Office**, like with climate change issue. Cuts across issues that fall within many departments remits (BS).		Dorset Coastal Forum Thames Estuary Partnership Suffolk Coastal Partnership (AP)
5.4	Cross-boundary collaboration;	87	98%			
5.5	Increasing staff capacity;	79	89%			
5.6	Policy incentives;	83	94%		Cabinet Office (not Defra)	
5.7	Legal incentives;	72	82%	Also technologies – we need **central research** to provide solutions for all (PH). Is there a lack of knowledge and stats in marine area? More knowledge would broaden collaboration (CE). In EU context have EU wide framework for research which establishes priorities for research (BS). There is an environmental one based through the EA, but this is partial. We could lobby research councils to say needs to be **national strategy for the coast** (AP). Problem is coast is partly DEFRA and partly DCLS so there will always be tussles.	Research Councils	
5.8	Voluntary initiatives;	77	87%		EU guidance	
5.9	Collaboration is not incentivised by statutory consultations so they do not require strengthening.	27	31%	No one has whole responsibility for coast. All regulators are responsible for regulation and not providing advice – if devolve regulatory decisions to ground level then need advice for them. Could **require statutory bodies to provide advice** (PH). **National framework** that everyone can understand and then allow parties to engage with and enable bottom-up to work within fair process (CE). **EU guidance** on how to draft policy framework – included land/sea (BS). [5.9] Consultations are run in a counterproductive way in UK; absorb a huge amount of **community effort** that is wasted (PH). Consultations **encourage silos** – example of not being allowed to input into consultation because wasn't an environmental NGO – need to encourage responses that have strong cross-sectoral base (AP). Environmental NGOs are the ones that shout the loudest – the big international NGOs operate at a commercial level and following own interests (BS). Need to **leave egos and logos at the door** – the BINGOs are some of the worst collaborators – don't work together but impose onto others. There is place for high level protection but only if backed up by strong scientific evidence and balance of interests (AP). **Social agenda is often missing** – social equity is not served by current system. BINGOs have resources and can dominate in statutory consultations (BS). That is why we have Brexit: Coast is Brexit – Brexit is Coast – coast has been marginalised because BINGOs and environmental NGOs have more knowledge/resources/clout to contribute to consultations and to lobby etc (AP). [Recommendation statement read as if we don't need statutory consultations, hence the low degree of consensus].	NOT big environmental NGOs (BINGOs)	

Q5   **Prompts for Topic Scribe**

How and who is best placed to mobilise these drivers for collaboration?

Q5.9   For statutory consultations to lever greater collaboration, Q3 suggested that they need greater support from networks. Which existing or new networks should be supported to improve engagement in statutory consultations?

B1: National strategy for the coast at/above central government to integrate departments [Cabinet Office level].

TOPIC C: ORGANISATIONS AND THE INSTITUTIONAL FRAMEWORK

Question in Verification Survey	Statement Green = Consensus >70% (darker = strongest >80%) Blue = Mixed response <70% consensus Red = No consensus < 50%	Total Consensus Agree + Strongly Agree	IMPLEMENTATION *We are seeking information on HOW and WHOM.*		
TOPIC SCRIBE: Lucy Taylor Verified write-up 08/11/2018	n =	%	**PROPOSED ACTION**	**BY WHOM**	**EXAMPLE OF GOOD PRACTICE?**
Organisations Driving Collaboration					
6.1	Collaboration is mainly driven by initiatives established for the purpose of integration, planning or conservation.	67	76%	[Table Group 2] How do we interpret these statements (PH)? **Collaboration only happens if there is a reason** – there needs to be a theme or a focus. Collaboration approaches as part of our society aren't our 'norm'. Regulatory authorities can't fund it. **Investment** does not happen unless there is a driver. WFD is an example – where there has been investment in time to collaborate between Coastal Partnerships and Catchment Based Approach; here the decision-maker is the investor. Define what governance is (BS)? Governance - accountability; decision-making. Governance framework often driven by economic value (to pay for environmental management). **Who has the real power?** (BS). Collaboration is driven by opportunities; economic vs environmental issues. England has more regulators than	**Q6 Prompts for Topic Scribe** Legislation and policy is largely sectoral. Collaboration is more driven by non-governmental initiatives. What actions could be taken and by whom, to build on collaboration through: ➢ Legislation – furthering commitments such as the 'duty to co-operate' (Localism Act) ➢ Policy – setting targets for collaborative effort? ➢ Voluntary Initiatives at the local level – how could their collaborative effort be strengthened? o Networks supported by stronger legal measures? o Learning from Scottish Marine Planning Partnerships? o Wider remit for IFCAs, Coastal Partnerships or a coastal 'system	
6.2	Community-driven, voluntary and non-governmental initiatives are effectively driving collaboration at the local and national level.	57	64%	elsewhere. Too many having an individual responsibility, which can lead to stakeholder's working in silo's, and many not considering the bigger picture. Governance needs to be more friendly to get proactive management (PH). Release of EC Structural Funds facilitated action towards multiple benefits (BS). Opportunity to get ecosystem based approach in at local level (CE) How do you deliver economic development sustainably (e.g. coastal protection encourages integration) (BS)? Collaboration = project specific. Within a community, where there are lots of projects ongoing; collaboration is very difficult. What is the breadth of system? Stakeholders only seem to know who regulators are when a project comes along- frustrating at local level. Coastal Community Teams (CCT) act as a catalyst. Bid writing expertise attracts people collaborating at the local level (PF).		More investment required in Coastal Partnership and Catchment Based Approach collaboration (AP).
6.3	Government bodies, agencies and groups with more sectoral statutory responsibilities are more limited in their capacity to drive collaboration due to it not being a core part of their remit.	67	76%	**People will only engage when they think they can get involved and influence change.** The regulatory system requires shared objectives. MaCAA is an obstacle - as too much (statutory) constraint, not agreement by the group (PH). **Breaking down government silos** – LEPs – drop the 'Enterprise' as means 'competition'. EU investment is interdisciplinary, **place-based not theme-based.** Lessons from EU moving forward (BS). 20% of funding within EU projects have 'working with local community' requirements. CCTS should be more integrated with community development. **Find the champion Local Authority or representative** and celebrate. Who will push the local community → celebration of best practice examples.	Funding requiring integration.	US – lots of good examples here for multiple benefits or schemes (PH) Truro – established office in Brussels (BS) Minister for Coast Support Officer (PF)

C1: Identify and use areas in the 25yr Environment Plan and Marine Pioneer: which mention/identify collaboration to illustrate/demonstrate its value to support delivery.

➔ Identify areas within the 25yr Environment Plan which mention collaboration to illustrate its value to support delivery [Marine Pioneer]

Characteristics of Effective Collaboration

7.1	The right skills to drive effective collaboration include networking, facilitation, leadership and fairness.	88	98%	[Table Group 1] Build up trust – meeting regularly – by picking up the phone (relationships not just emails). Depends on individual leaders; community always there (RH) Community needs to be informed (AL) Certain types of skills are required – people skills in order to communicate at both community level and also talking up to national level (BW) Partnership develops as a crisis erupts – quarry in Cornwall for tidal lagoon construction in Wales (SC). Young people aren't involved in decision-making. Where do the next generation of stakeholders/experts come from (SC)? Naturally replenishing stock of skills (RH). Time for people to get their voices heard (AK) We often take it for granted when collaboration is working. Often no reflection when it is going well (AL). Regional Flood Defence Committees (RFCCs) difference in local personalities (RH).
7.2	Partnership approaches are the strongest characteristic of effective collaboration if combined with staff capacity and continuity.	93	93%	Part of remit – core – everything that isn't part of your 'core' role gets reduced. Get everyone round the table – why should they collaborate? Where does that continuity come from? Relationship building gets lost with staff turnover & short-term contractors (AK). Knowledge disperses; desktop based no actual site focus e.g. SEFRMS: no consultation and Ministers got involved (RH). Statutory consultation – what you have to consult on is very focused; how do we make it looser and more flexible? (AK) Who sets the targets? Who's targets are they? (BW) People blame failures on statutory consultation processes (SC) MCZs staekhodler led; more bottom-up approach; should have come up with a more successful and agreeable approach; takes a lot longer for this compared to statutory approach (AK). Specific engagement officer for these types of initiatives is essential e.g. Steart Peninsula (AL) Task comes first (from either direction) and then governance decides how much you collaborate (AK)
7.3	The value of targets to drive collaborative effort are worthy of further exploration.	69	77%	MSFD gave lots of substance to pull things together but became a mess (!) (SC) 25yr Environment Plan (YEP) – use this plan to identify where collaboration is required? Government already have signed up to it with the Marine Pioneer (AK) – use this as a platform for demonstrating how collaboration is required as part of the 25 YEP. It's an aspirational plan but backing Lawsons Report – value IFCA – MMO appointees and statutory agencies and Cllrs should represent communities; drive collaboration; members on advisory boards (AK).

Additional column notes:

Q7   Prompts for Topic Scribe

How do we build greater skill sets, expertise and allocation of resources to drive collaborative effort?

Have you any experience of targets which drive collaborative effort?

Existing network leaders are seeking more formal communication.

- Gloucester Severn Estuary Stakeholders Steart Peninsula (WWT)
  → Both bottom-up initiatives.

- Regional Flood Defence Committees

- Severn Estuary Flood Risk Management Strategy (SEFRMS)

- Steart Peninsula

(Row 7.3 additional column): 25yr Environment Plan / IFCAs

Actions to Improve Clarity and Understanding of Roles and Responsibilities.

Measures to support formal and informal communication and networking could be strengthened through:

Verified write-up 08/11/2018

8.1	Creating a single overview role for coastal matters at the national level.	64	71%	[Table Group 4] 25 YEP – A few years ago NE, EA & Forestry Commission adjusted boundaries. Each area has an **integrated area plan within the 25 YEP – these will be natural capital plans.** Strengthen informal side of this – these would bring in a larger numbers of people to society. None of this is reflected in marine part of plan (AL). Influence and advocate for people to join up with activity on land. **Marine and fishers vs. everything else.** Area Integrated Planning not yet pooling money but are connecting (AL). NE have disappeared – cutting staff – not just programmes and resourcing (DS). Coastal Partnership grouping – influencers. 25 YEP new forms of governance, stewardship mentioned in some sections – year of green action. **Dysfunctional parent organisation → dysfunctional trickles down = collaboration issues if parent organisation is not an advocate.**		
8.2	Creating a single overview role for coastal matters at the local level.	59	66%	So many elements come in to coast – LPs, MPAs, tourism etc. Difficult to visualise and understand (SC). Not one (statutory) organisation that covers responsibilities of the whole coast (DS). Coastal Trust – statutory role? That also involved non-statutory representatives? (SC) System operators – 25 YEP? no mention in marine. Culture of focusing on problems, we have and using tools we already have e.g. MPAs, MSY (AL). Involved in Partnerships for data (PN). Historic environment – connectedness to people – lessons learned for natural environment can be applied from historic (AL). Capacity at both national and local level - overarching plan and then smaller plans embedded within required [scale] (PN)		Marine Protected Areas (MPAs) Maximum Sustainable Yield (MSY)
8.3	Divesting more responsibility from higher to lower tiers of government.	54	62%	Most bodies created are required by legislation. Opportunities within the forthcoming Environment Act - fisheries obsessed (over marine) - understanding problems and solutions are the same between statutory consultation processes. Can we use the marine pioneer; **sharing lessons and providing recommendations** to influence Defra – Michael Gove – not useful as Ministers and government officials still struggle (DS)....**people can't 'see the sea'** (SC).	Defra / Marine Pioneer / new Environment Act.	
8.4	Linking services and co-ordinating management responsibilities, particularly in the government sector.	82	93%			

Collaboration at the Local Community/Ecosystem Scale.

10.1	To support collaboration at the local community/ecosystem scale, a cross-sector convening role is needed.	81	91%	[Table Group 3] Multi-scalar; salmon need ecosystem scale. Different communities have different interests related to the system of ecosystem processes; processes have different scales. Recognising that the processes span various scales – collaboration needs to recognise those flows. Action? Ecosystem approach – scale outcomes. Rights based rather than process based – tendency towards rights (ME). Community intelligence on ES approach (NM). Process started with an Act (Wales Environment Act) – provides evidence base (SONARR) and Welsh Government develop policy. Delivery on area statements – a statutory responsibility of NRW. Fuzzy boundaries (PC). Can actions change statements (FS)?
10.2	This would build on existing and emerging governance structures such as Coastal, Catchment and Marine Planning Partnerships.	78	87%	ES approach – new approach – natural capital values – worrying (NM) Market capture is where the mismatch happens? (ME) Yealm Estuary Forum – good buy in from statutory agencies but not local community – held meetings in day. Other Estuary Forum had meeting in evening to get local community to attend. (e.g. Dart) Continuity of relationship building (NM). Experience kept within organisation (lack of) promote and encourage promotions internally, within departments and up to the organisation to decide - Defra Review. Encourage retention of expertise. Defra mandate delivery bodies (PC). Location of marine dept – miles away from anywhere. Accountability. Mechanisms for getting together – ca afford for local communities. (FS). Cost of getting to meetings and volunteer time too. (PC) Some organisation do not see the importance of collaboration (NM)
10.3	It would explore new committee/board structures, particularly at the local level involving NGOs/third sector initiatives.	63	71%	Public bodies do not prioritise collaboration as not a 'core' role. Resources – people and money (PC) Banks (CSO) and other large corporations donate to a coastal community - potential that can fund (FS) Logistics – delegate lists*, car sharing lists; helps collaborations and ensure attendance at Coastal Partnership events. Make sure there doesn't have to be reps from all departments within EA for example. (NM) Encouraging government organisations see the value of estuary forums! → how, who?

Q10 Prompts for Topic Scribe   **Key Q**

Who is best placed to facilitate collaboration between sectors in (your) local community/ecosystem?

How could the cross-sector convening role of existing coastal, catchment and marine partnerships be built upon?

Can you offer examples of good and bad governance structures (e.g. committees/boards) at the local community/ecosystem scale?

C2: Use Coastal Partnerships to champion and celebrate local collaborative efforts → use this to inspire and demonstrate what this can do on the ground (delivery).

→ Champion local collaborative efforts in order to inspire and demonstrate the difference it can make for delivery on the ground (CPs)

C3: Defra and Government review of opportunities for staff promotion and development opportunities in order to encourage retention of expertise and strong, long term relationship with stakeholders.

Please hand this sheet to your table facilitator or Natasha before the end of the workshop.   Thank you.

TOPIC D: MARINE AND TERRESTRIAL PLANNING FOR THE COAST

Question in Verification Survey	Statement *Green = Consensus >70%* *(darker = strongest >80%)* *Blue = Mixed response <70% consensus* *Red = No consensus < 50%*	Total Consensus Agree + Strongly Agree		IMPLEMENTATION *We are seeking information on HOW and WHOM.*		
TOPIC SCRIBE: Amy Wilcocks Verified write-up 28/11/2018		**n =**	**%**	**PROPOSED ACTION**	**BY WHOM**	**EXAMPLE OF GOOD PRACTICE?**
Effectiveness of Marine Planning for the Coast						
11	The marine planning system is not very effective across the land-sea interface for the coast at the current time.	68	76%	*No need to discuss.*		
Collaboration Between Marine Planning Authorities						
12	The overlap between the marine and terrestrial planning system to 'secure compatibility' between plans is not effectively encouraging collaboration between planning authorities and stakeholders in the coastal area at the current time.	65	73%	Ecosystem approach – less delineation between areas and organisations. Process thinking rather than spatial (ME). Re-employment of planning teams to deal with terrestrial and marine – education of planners to be more aware of their influence on marine environment and vice versa – at the moment there isn't much consideration between the two (FS). Everyone needs to be aware, when making planning decisions (NM). Need to define what sustainability means or what the outcomes of planning should be (NM, PC). Bring in bottom-up and public and business. Media (PH)? Problems with mis-match of scale and timing of terrestrial and marine plans. More ecosystem approach. Re-look at terrestrial plans – enforced overlap – terrestrial and marine plans more integrated at statutory level (BS). Lack of understanding between terrestrial and marine – local partnerships to understand local influences (AP)? Extend a single planning authority to (e.g. 12 nm offshore) with resource at the local level for accountability – simplified system with better understanding of local issues through bottom-up approach (PH).	D1: Create a simplified local authority planning team with a process approach and resources and education to make holistic decisions.	

Q12 Prompts for Topic Scribe   Key Q

How could the legal 'hook' to 'secure compatibility' in the MaCAA (2009) be built upon further to encourage more collaboration between marine and terrestrial planning authorities?

Through which legislation/policy? Who should lead – NGOs, Defra, Devolved Administrations?

Options to Improve Collaboration Between Marine Planning Authorities					
13	Strengthen resource capacity/expertise through the existing marine and terrestrial planning system, rather than develop a new approach for coastal planning.	73	82%	More education of terrestrial and marine planners in the opposite environment – at university level (FS)? Better use of what is available – better outreach – more stakeholder engagement – more intelligent engagement – depending on the issue and how it's engaged upon – unbiased engagement. National awareness. Ownership of their surrounds (A?) Resource at local level to improve accountability e.g. IFCA (PH) Best practice from terrestrial planners. Where overlap is [of] use a system like NSIP (Nationally Significant Infrastructure Projects) – collaboration, lessons learnt → joint systems (AK). More resource to MP coastal/transboundary effects/cumulative effects → some organisations more resource into cumulative effects.	**Q13 Prompts for Topic Scribe** How can resource capacity and/or expertise be strengthened? Through greater legislation, policy, voluntary initiatives?

Scale and Connectivity Between Marine and Terrestrial Plans					
14	Statutory coastal plans nested within marine and terrestrial plans would be welcomed and could build upon existing voluntary coastal plans.	72	81%	Principal need to come from the top – still need legislative driver (PC). Coastal policy within marine spatial plans – national Coastal Concordat – develops this – more awareness and better use of this; make it statutory? Local, educated authorities who can implement policy (e.g. catchment partnerships). Aims: established by bottom-up engagement → local joint spatial planning with local input, resources and education – aside from local authority; feed back into consultations (All table groups). **D2: Co-locate Coastal Partnerships and community outreach (e.g. CCTs) to fuel bottom-up approach and educate local planners.** → Co-located coastal and community partnerships which, with government depts. could consult to feed into consultations.	**Q14 Prompts for Topic Scribe** **Key Q** Who is best placed to do this? A statutory or non-statutory body or network? Many voluntary coastal plans have been prepared by local partnerships, how should these be built upon? Discuss this recommendation in relation to the existing roles of *statutory bodies* such as: - Marine Planning Authorities – MMO, Welsh Government, Scottish Government - Environment Agency/Natural Resources Wales/Scottish EPA - Other government agency. And *non-statutory initiatives* such as: - Scottish Coastal Forum / Coastal Partnerships Network / Local Government Association - Coastal Partnerships, Catchment Partnerships, Marine Planning Partnerships (Scotland only); - European Marine Site (EMS) Management Groups - Inshore Fisheries and Conservation Authorities (IFCAs) - Others? National coastal policy leading to coastal plans OR coastal chapters in marine and terrestrial plans? MMO, EA and Local Councils

Leadership for Coastal Planning					

15	National and regional leadership is sought through improving coastal policy, to provide stronger direction and enabling support and political will for implementation at the local level.	77	87%		

Basic principles need to be established by legislation.
Bottom-up education of the public – marine plastics is a good example (ME).

Issue-dependent – legislative drivers still needed to point in the right direction (PC).
Central government – better political will for sustainability.

IFCA & Coastal Partnerships for bottom-up direction → co-locate (PH)

Top-down to define outline policies which include coastal zone to then be implemented at the local level (AP).

Planning control at the local level with statutory responsibilities (PM).

Coastal community and communication between areas (PF).

Overarching cultural/community/societal aims from bottom to influence* top-down aims.
*how? education?

Enable single planning authority out to 12nm (All table groups).

D3: Legislation driven by bottom-up needs which would influence how local planning authority (simplified team) makes planning decisions.

Specify how coastal policy should be improved: through central government, government agencies, political power, voluntary campaigns?

Note Welsh enabling legislation (Wellbeing of Future Generations Act & Environment Act)

Is a cross-departmental group needed in central government?

Is there a gap in leadership at the regional scale (e.g. English regions)?

A national approach incorporating regional and sub-regional/local needs – rather like a federal structure?

Should MMO staff engage more locally?

IFCA – body that brings LA and others together.

Terrestrial planning.

Defra, MMO, LA

Establish legislation to enable single planning authority out to 12nm.
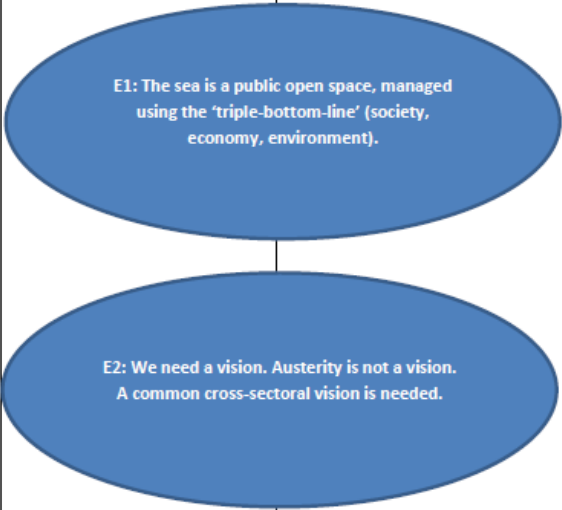
Please hand this sheet to your table facilitator or Natasha before the end of the workshop.

Thank you.

Footnote: Post workshop comment from Lucy Taylor (Topic C scribe):

A couple of points, mainly that there is a huge drive, motivation and passion surrounding most people who work on the coast; I think that has been so very clear in the responses from your participants and from the "vibe" within the workshop – I wish I could remember the figures you said about the collective number of years' experience within your research. I really hope that Defra (and others) seriously take on board the recommendations that participants came up with at the workshop. The loss of knowledge in the maritime and coastal sector is something that particularly worries me within Gov agencies and the rapid turnover of staff. It really affects the work we do at SEP and slows lots of things down. I imagine that if I feel like that, local communities and developers must feel even more frustrated!! It seems to be almost frightening gov agency staff too, as they lose the expertise of their colleagues to cuts/non-specialist roles. Morale must be so low. It was also interesting to hear the fisheries vs "rest of marine" debate, and although it was probably not one of the main points discussed on my group, I know that a lot of stakeholders feel like this. So much of gov focus is given to the fisheries sector at the moment with Brexit (zzz) and I think a lot of other marine and coastal players feel like they are getting a bit left behind.

TOPIC E: SOCIO-LEGAL MECHANISMS FOR COASTAL STEWARDSHIP

Question in Verification Survey	Statement Green = Consensus >70% (darker = strongest >80%) Blue = Mixed response <70% consensus Red = No consensus < 50%	Total Consensus Agree + Strongly Agree	IMPLEMENTATION *We are seeking information on HOW and WHOM.*		
TOPIC SCRIBE: Tom Appleby Verified write-up 13/11/2018 Orange text aggregated points towards plenary voting	n =	%	**PROPOSED ACTION**	**BY WHOM**	**EXAMPLE OF GOOD PRACTICE?**

Promoting Coastal Stewardship

16.1	Regulatory approaches promote stewardship to some extent, but would be strengthened through a review of the regulatory framework – including:	73	90%		
	National coastal policy;	73	90%		
	Statutory coastal plan; [see D 14]	65	75%		
	Statutory duty towards net environmental/natural capital gain for public benefit;	66	77%		
	Streamlining existing legislation;	62	71%		
	Stronger fisheries management.	50	58%		

Q16   Prompts for Topic Scribe   **Key Q**

Noting the degree of consensus/priority, how do we mobilise a review of national coastal policy which would create the framework for statutory coastal plans (in England)?

To what extent do these build on existing, voluntary Coastal/Estuary plans, Shoreline Management Plans and Catchment Plans or statutory Marine Plans and Local Plans?

Who should help to mobilise this and when?

If you *disagree* about the need for statutory coastal plans, how else would you propose strengthening coastal stewardship?

Vision-making process (AL)
- Dartmoor vision (DS)
- 25yr Plan*.

Education (FS).

National Plan with local policies.

Statutory duties (i.e. AONB) – resource, plan, deliver – *sea as public space – triple bottom-line.

Incentives.
Education
Trust vs Fear – tradition; power; rules-led.
Millenials.

Dartmoor Vision

25yr Environment Plan

E1: The sea is a public open space, managed using the 'triple-bottom-line' (society, economy, environment).

E2: We need a vision. Austerity is not a vision. A common cross-sectoral vision is needed.

Improving coastal stewardship would also involve bringing together and coordinate efforts/initiatives such as:

Verified write-up 13/11/2018 in discussion with TA: comments in blue added by NB. Observations by NB to follow-up in orange.

17.1	Joint marine-terrestrial or coastal plans;	75	86%	
17.2	Linking marine planning with inshore fisheries management;	66	77%	
17.3	Joining-up catchment and coastal co-ordination;	82	95%	
17.4	Empowering local authorities.	70	80%	

Dartmoor National Park (DS)
- Upland commons management is different.
→ Follow-up for further information with DS / publication by ?Exeter Uni?

Aggregates – EIA – Regulations (DT).
- Offered as an example of best practice where an Appropriate Assessment is conducted for the regulator (MMO) on behalf of the landowner (CE).

Different models.
- Role of regulator with powers & duties - responsibilities vs. those with advisory/campaigning role and no responsibility.

Welsh Water CIO – more [obvious?]. PLC with statutory functions and regulator. Getting stewardship incentives for private [concern?] by appealing to regulator.
- Stewardship duties of a PLC less obvious than a CIO
- Regulator provides strong (external) scrutiny

→ [NB observation]
Contrast between privatised water companies scrutinised heavily over water use/quality by government regulator vs. CE accountability over sediment (aggregate extraction) regulated by the MMO through AA studies and little capacity to enforce/scrutinise when compared to OFWAT'

Scale 'local context is everything' (ME).

Flexibility of regulators regarding staff direction e.g.
- MoD
- Sea Fisheries Committees
- Local Authority (cockle picking – PC)

Q17   Prompts for Topic Scribe

The degree of consensus shown between 17.1-3 suggests coastal plans/networks should bring together coordinating efforts for catchments and marine (and possibly fisheries management).

Do you have any specific recommendations about how to join-up catchment, coastal and marine planning and management (e.g. role of IFCAs, SMP groups, EMS groups, Coastal/Catchment/Marine partnerships)?

Should each catchment/coastal & marine ecosystem be audited on a case-by-case basis to identify the best governance structure at the local/ecosystem scale?

Dartmoor National Park

Welsh Water CIO

E3: Empowerment of officials; fuzzy boundaries
→ Officials need fuzzy institutional boundaries in their remits.

				Addressing the need for societal/behavioural change to incentivise stewardship of coastal resources by:

Addressing the need for societal/behavioural change to incentivise stewardship of coastal resources by:

Verified write-up 13/11/2018

18.1	Focusing on mechanisms which will build trust in local communities;	82	93%
18.2	Seeking to employ (a network of) local stewards promoting a sense of public/collective ownership;	61	69%
18.3	Securing longer-term finance and investment in communication rather than a project-based approach;	74	84%
18.4	Building knowledge, skills and education.	86	98%

MCZ example
- best MCZ process had broadest industry engagement (AL)
- ask who is not in the room; put forward their views.

Trust people (FS)

Don't assume [resolve greed].

Calls for regulation e.g. black bream on south coast (ME)

Ask who is not in the room and represent their interests.

Start with society rather than environment.

Q18 Prompts for Topic Scribe

Key Q

Who should lead and who should finance these longer-term mechanisms or local 'stewards'?

E4: Shift to trust rather than fear in engagement.

➔ Move towards a trust not fear approach to stakeholder engagement

E5: Stakeholders – who is 'not in the room'?

➔ In all decision-making, ask 'who is not in the room'?

Place-Based Governance
Verified write-up 13/11/2018

| 19.1 | Governance at a scale which links people's sense of place with the coastal ecosystem will improve stewardship action. | 84 | 94% | Nomadic dredgers v local fishers and other businesses: Lyme Bay (ME)

Skate in North Devon – national policy poorly ???

Ownership of the issue (DT) | | Skate in North Devon |

Please hand this sheet to your table facilitator or Natasha before the end of the workshop.

Thank you.

A   1.   Regular local monitoring and engagement sustained through national policy requirement (linked to 25yr Environment Plan).

A.   Strongly Agree
B.   Agree
C.   Disagree
D.   Strongly Disagree
E.   Don't Know
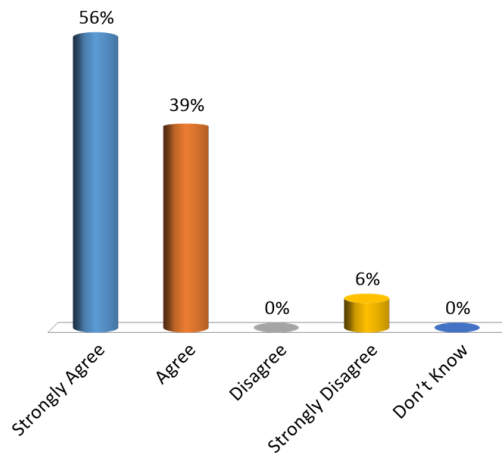
A   2.   Bring people together through shared vision (e.g. biosphere) underpinned by appropriate governance structure which attracts sustainable finance [WHO?]

A.   Strongly Agree
B.   Agree
C.   Disagree
D.   Strongly Disagree
E.   Don't Know
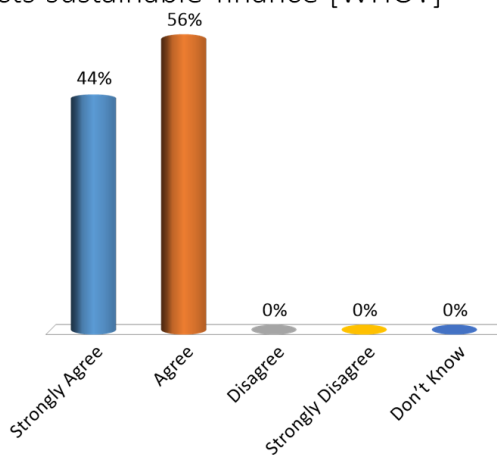
B   1.   National strategy for the coast at/above central government to integrate depts. [Cabinet Office level]

A.   Strongly Agree
B.   Agree
C.   Disagree
D.   Strongly Disagree
E.   Don't Know
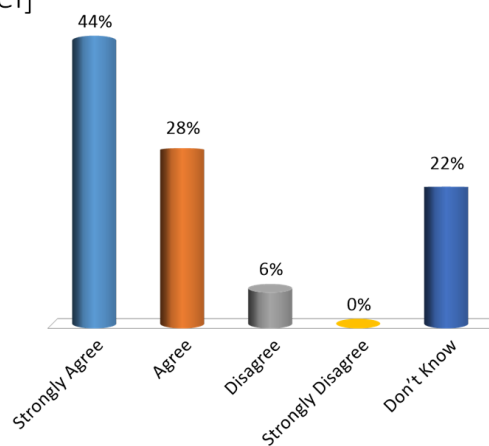
C   1.   Identify areas within the 25yr Environment Plan which mention collaboration to illustrate its value to support delivery [Marine Pioneer]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
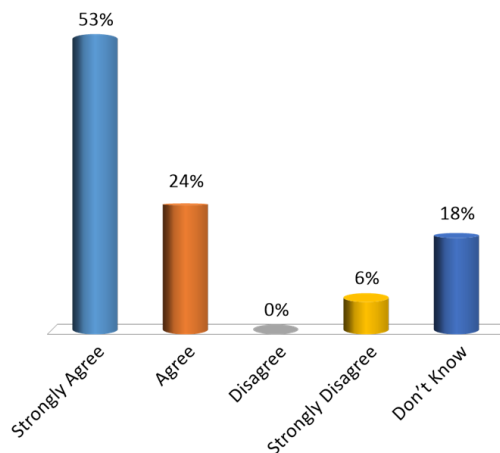
C   2.   Champion local collaborative efforts in order to inspire and demonstrate the difference it can make for delivery on the ground [CPs]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
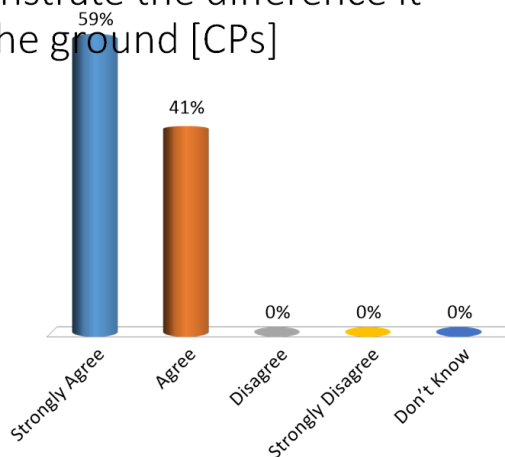
C   3.   Defra review of opportunities for staff promotion and development to encourage the retention of expertise and long term relationships with stakeholders [Defra!].

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
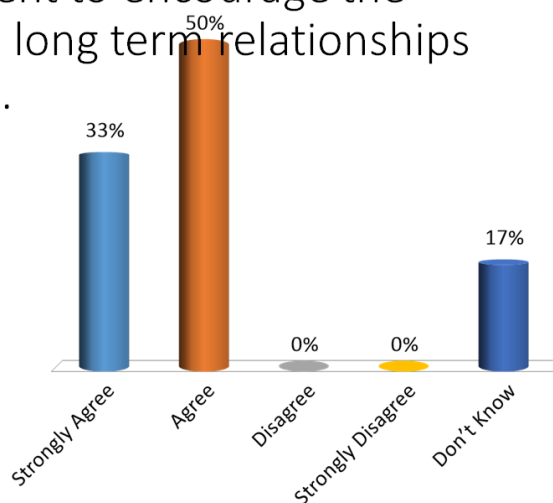
D   1.   Create a simplified local authority planning team with a process approach and resources and education to make holistic decisions [?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
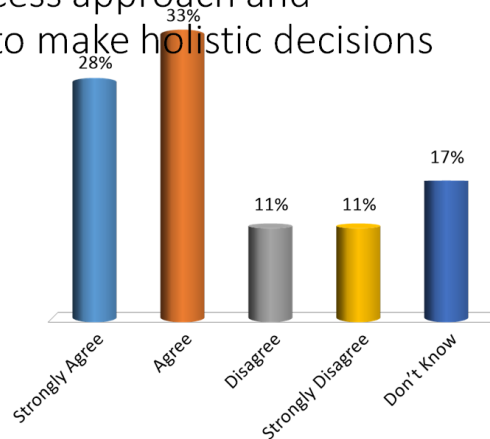
D   2.   Co-located coastal and community partnerships which with government depts. could consult to feed into consultations [WHO?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
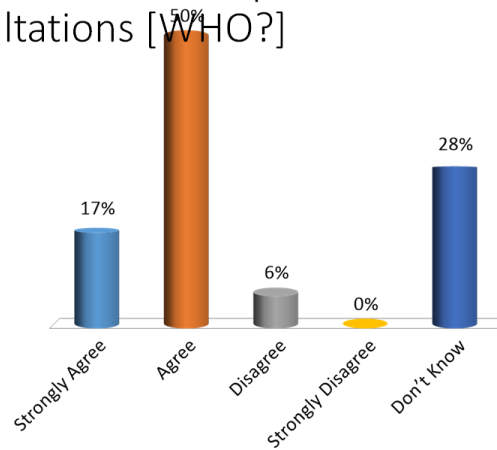
D   3.   Legislation driven by bottom-up needs which would influence how local planning authority (simplified team) makes planning decisions [WHO?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
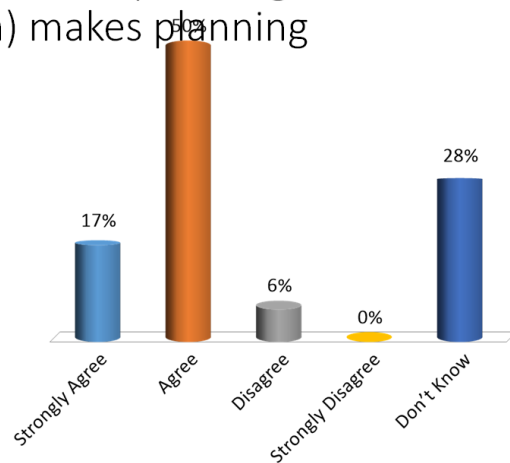
i)

E   1.   The sea is a public open space, managed using the 'triple bottom-line' (society, economy, environment). [WHO?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know

78% Strongly Agree
17% Agree
0% Disagree
0% Strongly Disagree
6% Don't Know
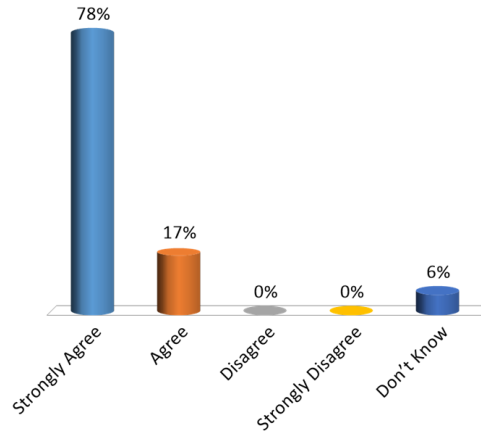
E   2.   We need a vision. Austerity is not a vision. A common cross-sectoral vision is needed. [WHO?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know

65% Strongly Agree
35% Agree
0% Disagree
0% Strongly Disagree
0% Don't Know
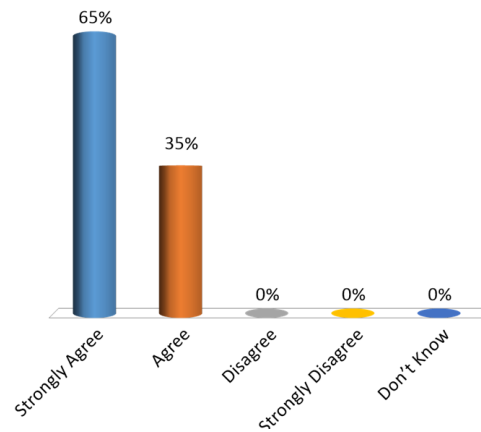
E   3.   Officials need fuzzy institutional boundaries in their remits. [WHO?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know

61% Strongly Agree
17% Agree
22% Disagree
0% Strongly Disagree
0% Don't Know
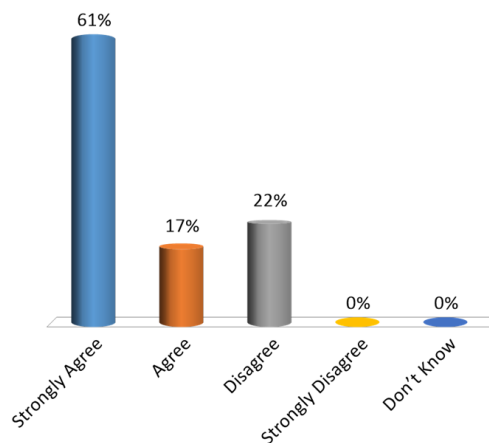
E 4. Move towards a trust not fear approach to stakeholder engagement [WHO?]

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
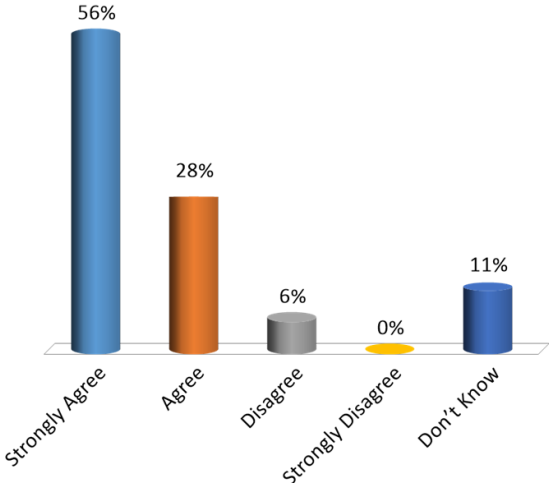
E 5. In all decision-making, ask 'who is not in the room'?

A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't Know
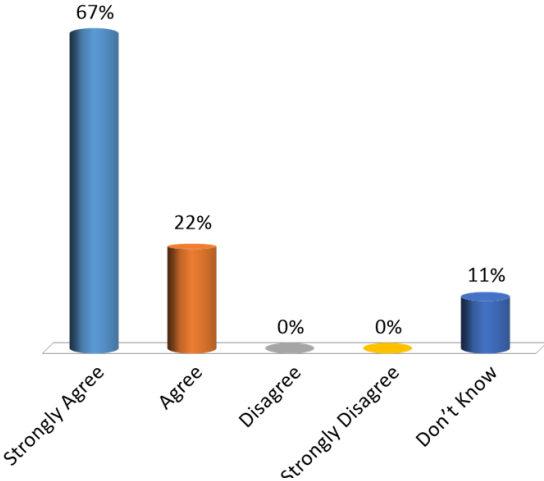
ACTION PRIORITISATION / FINAL THOUGHTS FROM WORKSHOP PARTICIPANTS

Topic A and B (Approach to Governance)

Topic C (Organisations)

Topic D (Planning)

TOP 3-5 ACTIONS FOR PLENARY   TOPIC D

1. Create a simplified local authority planning team with a process approach and resources and education to make holistic decisions

2. Co-Located coastal and community partnerships which with government depts. could consult to feed into consultations.

3. Legislation driven by bottom up needs which would influence how local planning authority (simplified team) makes planning decisions

Local political will

Natasha →

Topic E (Stewardship)

Duty of reinstated Sustainable Development Commission

Political Will to withstand Sectoral powers & £££'s

All relevant government Departments

TOP 3-5 ACTIONS FOR PLENARY   TOPIC E

1. The sea is a public open space managed using the 'triple-bottom line' (society, economy, env.)
2. We need a vision which is cross-sectoral.
3. Officials need fuzzy institutional boundaries in their remits.
4. Trust not fear in stakeholder engagement.
5. In decision making ask who is not in the room.

WHO?

society needs to agree the value of our to support EC + soc. Not maintain but enhance - 25 YEP. evo you in a concerted fashion

→ Vision Statement of a National Strategy (Topic A/B Point 3) So...Coastal for lobbying + Cabinet office.

everyone!

APPENDIX 5   Publications, Poster and Unpublished Reports

Publications

Bradshaw, N. Earll, B. Barham P. Pryor A. and Everard M. (2021) The Coastal Based Approach *Environmental Scientist* - Journal of the Institution of Environmental Sciences (IES) (March 2021). Available at: https://www.the-ies.org/resources/creating-sustainable-future and https://uwe-repository.worktribe.com/output/7243877

Bradshaw, N. (2018) Focus on the Coast. *Environmental Scientist* - Journal of the Institution of Environmental Sciences (IES), Special Edition 'Deeper than Plastic' (October, 2018). Available at: https://www.the-ies.org/resources/deeper-plastic-issues-marine and https://uwe-repository.worktribe.com/output/10194426

M Acreman, E Maltby, A Maltby, P Bryson and N Bradshaw (March 2018) Natural Capital Initiative (NCI) Wholescape thinking: towards integrating the management of catchments, coast and sea through partnerships. Available online: https://www.naturalcapitalinitiative.org.uk/wholescapes and https://uwe-repository.worktribe.com/output/10194474

Unpublished Reports

Bradshaw (2017) 'Improving Governance trough Coastal Partnerships in the UK: a decade of evolution and future scenarios'. *Research Writing module paper, May, 2017.* https://uwe-repository.worktribe.com/output/10194502

Bradshaw, N (2017) Legal Standing for the Coast? Guardianship, Stewardship and the Role of a Trust. *Advanced Specialist Text module submission, January 2017.* https://uwe-repository.worktribe.com/output/10194507

Bradshaw, N (2017) The Public Trust Doctrine at the Coast. *Natural Resources Law module, April 2017.* https://uwe-repository.worktribe.com/output/10194511

Poster

Bradshaw, N.J.B. Appleby, T.A. Hayes, E.T. (2018) UK Coastal Governance: Enhancing collaborative governance mechanisms for stewardship. Poster presented at a British Council workshop for Post Graduate Researchers in South Africa. [Included below]

UK Coastal Governance
Enhancing Collaborative Governance Mechanisms for Stewardship

Bradshaw, N.J.B., Appleby, T.A. and Hayes, E.T.
International Water Security Network, University of the West of England, Bristol, UK

1. Introduction

Recent and future changes in UK marine legislation put the land-sea interface under the spotlight. The *UK Coastal Governance* research was launched in Autumn 2017 to review existing and new methods to support coastal governance in the UK. The purpose of the research is to explore:

- Marine and terrestrial approaches to governance across the land-sea interface;
- Opportunities, barriers and mechanisms to support collaboration;
- How to improve coastal stewardship and what benefits that may bring.

This poster illustrates the method for the research and some initial findings prior to completion later in 2018.

2. Research Objectives

The overall objective is to evaluate the current coastal governance arrangements which operate in the UK focusing on an assessment of the role of participatory engagement mechanisms and their socio-legal context to improve coastal stewardship. There are four specific objectives:

1. Critical review of socio-legal and participatory engagement mechanisms that may support better governance and stewardship of coastal ecosystems.
2. Identify enabling mechanisms which can enhance collaborative governance to promote coastal stewardship.
3. Assess the opportunities and constraints to implementing the mechanism(s) for optimal collaborative governance.
4. Consolidate the recommendations to promote coastal stewardship.

3. Key Concepts

The *UK Coastal Governance* research is part of a PhD which will explore overlaps between three key concepts in the literature (see diagram) to address the research question 'Enhancing collaborative governance mechanisms for Coastal Stewardship in the UK'.

4. Methodology

Delphi Method

The current context for UK coastal governance is researched with a group of experts in a three-stage, iterative Delphi process involving two online surveys and a workshop. Working from a grounded theory approach using mixed methods, the results assess current opinion and explore future options for improvement. The *UK Coastal Governance* survey method and timeline is shown in the diagram below.
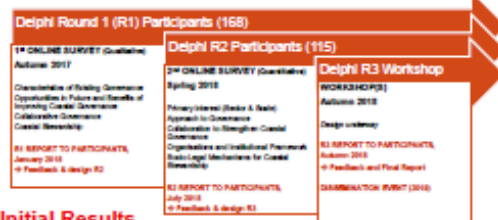
5. Initial Results

Over 900 people with experience linked to coastal/marine planning, resource use, regulation, policy or law were invited to participate. The Round 1 (R1) response rate was 16% with 173 participants, of which 168 were eligible to participate in the full Delphi process. The Round 2 (R2) response rate was 70% with 115 participants completing the second online survey. The Round 3 (R3) workshop is now being planned for September 2018 in Bristol as the final stage of the Delphi process.
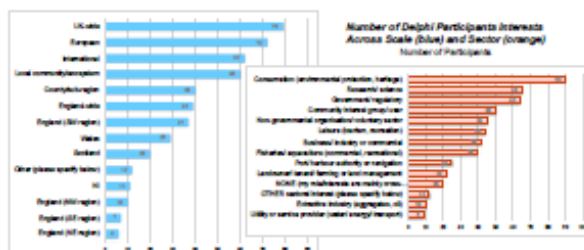
6. Participants

The combined expertise of participants' is approximately 3000 years with 65% having >10yrs experience and 70 participants offering >20 or >30yrs experience. Over 80% of the participants' undertake professional work relating to the coast every day or weekly. Their expertise is more marine (34%) and coastal (28%) as opposed to terrestrial (6%), but 24% of participants' felt their experience spanned terrestrial, marine and coastal areas. The following charts illustrate the number of R1 participants operating at different geographical scales across the UK and their interest sectors.

7. Characteristics of Existing Governance

The R1 Delphi Survey asked very open questions about participant's views and interests in current and future coastal governance and how they could be improved. The first four questions focused on the strengths, weaknesses, opportunities and benefits of improvements in coastal governance. The majority of comments, analysed using NVivo software, related to the approach to governance, legal/policy framework and institutions. The balance of comments in these categories was compared and reported back to participants prior to the R2 survey with opportunity provided for further comment. The pie chart shown here illustrates *Strengths in Existing Governance*.

8. Collaboration and Stewardship

Participants were asked about the concept, extent, drivers, mechanisms and barriers for collaboration and stewardship, with results presented in categories as shown in this example.

9. Vision for Future Coastal Governance

Participants in the *UK Coastal Governance* Delphi process have so far suggested that good participation and collaboration across communities and sectors underpins a shared vision. The UK's approach to coastal governance could involve clearer lines of communication, better knowledge of responsibilities, stronger leadership, engagement and awareness amongst coastal communities. A more democratic, transparent approach would further collaboration. The possibility of enhancing an ecosystem approach through more place-based governance structures is worthy of further exploration.

10. Next Steps

Results of the R2 online survey are being evaluated prior to convening the Delphi workshop in Autumn 2018. Based on this primary research and key concepts in the literature, a future framework for improving *UK Coastal Governance* will be offered with recommended options towards coastal stewardship. Initial results indicate that recommended options may include the evolution of existing place-based local delivery networks through furthering trusteeship models. The legal governance framework maybe strengthened towards a guardianship approach which empowers coastal communities towards coastal stewardship.

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In partnership with: MONASH SOUTH AFRICA — THE UNIVERSITY OF ARIZONA, Udall Center for Studies in Public Policy

International Water Security Network

APPENDIX 6   Research Blogs, Podcast and Presentations

Research Blogs

Reflections on the English Coastal Challenge Summit (April 2018)

Integrated Coastal Management: Comparing the experiences of South Africa and the UK (July 2018)

Observations from a mid-summer visit to Norway (July 2017)

Who looks after our coast – guardians, stewards or trustees? (November 2016)

European Marine Planning and the Environment (January 2016)

Partnerships for the Coast (December 2015)

Podcast

UK Environmental Law Association (October 2018)

Presentations

UK Coastal Governance: Enhancing collaborative governance mechanisms for stewardship. Available at: https://uwe-repository.worktribe.com/output/10194485

Coastal Partnerships Network Forum (October 2019) *UK Coastal Governance – Future Insights.* Available at: https://uwe-repository.worktribe.com/output/10194577

MARE conference, The Netherlands (June 2019) *UK Coastal Governance – Future Insights*

UK Environmental Law Association (September 2018) Appleby, Bean and Bradshaw – *The Public Trust Doctrine in the Sea – Bringing it Back Home.* Available at: https://uwe-repository.worktribe.com/output/10194587

Royal Geographical Society (August 2018) - *Coastal Governance and the role of Coastal Partnerships in the UK: Supporting resilience in coastal communities?* Available at: https://uwe-repository.worktribe.com/output/10194600

IWSN Postgraduate Seminar (January 2018) *UK Coastal Governance: signs of collaborative governance and stewardship?* Available at: https://uwe-repository.worktribe.com/output/10194604

Coastal Futures conference presentation (January 2018) *UK Coastal Governance – Future Insights*. Available at: https://uwe-repository.worktribe.com/output/10194624

IWSN Postgraduate Seminar (February 2017) *Legal Standing for the Coast.* Available at: https://uwe-repository.worktribe.com/output/10194624

Coastal Partnerships Network annual forum (October 2016) *Stewards, Guardians or Trustees?* Available at: https://uwe-repository.worktribe.com/output/10194630