Spatial Imaginaries of 'Coast':

Case Studies in Power and Place

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Abstract

UK land use policy since the mid twentieth century has recognized the 'coast' as representing key economic, ecological and cultural resources for development and management. However, the definition, understanding and role of coastal space in planning processes has attracted limited research interest until recently. The context for including coastal space in UK planning policy has changed radically in the last few years, with, for instance, new horizons in minerals and fuel extraction, nuclear power and renewable energy affecting the land/sea interface directly. At the same time, the introduction of new spatial planning systems for marine space, requiring integration with land use planning, has shifted the institutional and conceptual parameters of development policy and regulation.

This PhD thesis uses case studies in two cross-border regions of the northern UK to examine how framings of spatial imaginaries of 'coast' operate in consolidating or challenging dominant development discourses. It takes a relational approach to the understanding of coastal space, recognizing its discursive construction by policy actors. It examines the ways in which such constructions are being harnessed within national and local planning processes, by drawing on critical discourse analysis of the positioning and mobilization of coastal imaginaries in development policy-making.

Both case study areas have extensive environmental designations of international significance. The findings point to the ways in which different imaginaries of 'coast' in these areas are conscripted into competing discourses of local development. The discursive harnessing of spatial imaginaries of coast by dominant economic development agendas is an active mechanism of inclusion and exclusion. These findings highlight the importance, in development policy analysis, of recognizing spatial imaginaries of 'coast' as the focus of agonistic and deliberative debates, rather than as functional entities *per se*.

Dedicated to Will and Joan

Acknowledgements

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Abbreviations and acronyms

AONB	Area of Outstanding Natural Beauty
DCLG	Department for Communities and Local Government
DEFRA	Department for Environment, Food and Rural Affairs
DoE	Department of Environment
EA	Environment Agency
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EFF	European Fisheries Fund
EIA	Environmental Impact Assessment
EMS	European Marine Site
ERDF	European Regional Development Fund
ESF	European Social Fund
FTE	Full time equivalent
GiA	Grant in Aid
GVA	Gross value added
HLF	Heritage Lottery Fund
HMA	Housing Market Area
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
IPENS	Improvement Programme for England's Natura 2000 Sites
LEADER	Liaison Entre Actions de Développement de l'Économie Rurale
LEP	Local Enterprise Partnership
LNP	Local Nature Partnership
MMO	Marine Management Organisation
MPS	Marine Policy Statement
MSFD	Marine Strategy Framework Directive
NCC	Northumberland County Council
NECA	North East Combined Authority
NELEP	North East Local Enterprise Partnership
NIA	Nature Improvement Area
NPPF	National Planning Policy Framework
NSA	National Scenic Area

SAC	Special Area of Conservation
SEPA	Scottish Environment Protection Agency
SESplan	South East Scotland Strategic Development Plan Authority
SFP	Solway Firth Partnership
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SUDS	Sustainable urban drainage system
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention of the Law of the Sea
UNESA	United Nations Department of Economic and Social Affairs
WFD	Water Framework Directive

Chapter 1. Introduction

Neither space nor place can provide a haven from the world. If time presents us with the opportunities of change and (as some would see it) the terror of death, then space presents us with the social in the widest sense: the challenge of our constitutive interrelatedness.

(Doreen Massey, 2005, p195)

Background and research aim

Achieving socially just and ecologically sustainable development depends on our understanding and improvement of development governance processes and outcomes. As Massey stresses, this is an on-going project in which the "challenge of our constitutive interrelatedness" must focus attention on spatial practices. New institutions of marine and coastal planning are being introduced in the UK, alongside a suite of other radical changes in UK development and environmental policy frameworks and institutional roles and relations. This has significant implications for governance of coastal resources as part of spatial policy-making. On-going reorientation of UK resource governance and spatial planning is being driven by not only political redefinition of territorial boundaries and interactions, but also by changing conceptions of the relationship between land and water (both marine and freshwater) and recognition of the complexity of ecosystem dynamics and pressures (European Environmental Agency, 2006; Hull, 2013; Kidd et al, 2011).

Land use and urban development have a profound influence on the marine and coastal environments, while marine transport and resource use have played definitive roles in the development of urban settlement (Smith et al, 2012; Kidd et al, 2013). The system of marine spatial planning set out in the Marine and Coastal Access Act 2009, aims to enable "a holistic view of the built environment, communities and environmental matters across the land/sea boundary" (DEFRA, 2011, p.12). The Marine Management Organization (MMO) emphasizes that this will require integration of marine and coastal management with planning processes for both urban and rural development (MMO, 2011). Land-based development planning, meanwhile, has undergone major upheavals in the face of institutional and economic changes and socio-political expectations. These include significant shifts in the relationship between central and local government, with the abolition of regional development agencies in England and on-going cuts in funding for local councils and environmental agencies across the UK (Baker and Wong, 2013; While, 2013).

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The aim of this study is to develop, explore and reflect on a conceptual framework for analyzing mechanisms through which power is wielded and transformed, in the context of the planning and management of land and marine resources in coastal areas. Its focus is on two UK case studies: the Solway Firth on the western borders of England and Scotland, and Berwickshire and Northumberland, referred to in this research as the Eastern Borderlands. These are areas in which the local implications of international commitments to biodiversity protection in the marine and coastal environment have come to the foreground of attention, overshadowing national or regional boundaries. At the same time, the wider marine and coastal 'commons' have been increasingly drawn into centralised governance arrangements, firstly in terms of amenity resources (landscape and recreation), then increasingly in terms of energy resources, risk management and economic development (Oels, 2005, p185).

Current analytical and normative frameworks for development policy struggle to address the challenges of complexity, scale, uncertainty and democracy in the planning and management of development and environmental goods, even without the additional complexities of marine and coastal issues. In particular, spatial planning policy faces charges of perpetuating, and indeed strengthening, inequities in power, and creating barriers to socio-environmental innovation (Campbell, 2012; Flyvbjerg, 1998, 2001, 2004; Hillier, 2010; Kidd et al, 2011; Olesen, 2014; RTPI, 2001; Tewdwr-Jones and Allmendinger, 1998). Analysis of power relationships is of fundamental importance to the analysis of all planning activity because such relationships not only shape action and outcomes, they shape the content and the very understanding of development itself (Innes and Booher, 2015). They activate, enable, transform, include, exclude, suppress and repress. This study sets out to explore the role of the construction of space in power relationships: specifically, in this instance, the construction of 'coastal' space. It responds to general observations of the malleability of definitions of coast in development policy and management processes. Where does coast 'begin and end' in relation to land and sea? And, more significantly, what are the roles of concepts and associations of coast in mediating the dialectical construction of land and sea? As environmental science and management highlight the deep interconnectivity between terrestrial and marine ecosystems, not least in terms of climate change, and as the marine environment increasingly becomes the focus of new frontiers of resource exploitation, the construction of related boundaries, territories and associations offers a rich analytical field (Jay et al, 2012).

Developing our understanding of the way in which constructions of space can reflect or challenge power relations is critically important for planning practice as a whole. The collaborative or communicative planning model for development and environmental decision-making has widely influenced professional planning education and practice in the UK and US. It promotes communicative processes as fundamental to the cooperation, learning and creativity needed to maintain and accommodate complexity and diversity, while finding just solutions to development challenges. This approach has had an important influence on the development of spatial planning practice over the last decade in particular, including the emerging discipline of marine spatial planning (Gilliland and Laffoley, 2008; Flannery& O´Cinnéide, 2012a). Advocates of communicative planning theory fully recognize that development and policy actors struggle for dominance over arenas and actions (Healey, 2003; Innes and Booher, 2015) and argue that attention to framing and quality of debate can enable the representation of the widest possible range of alternative development pathways in the normative development of more equitable and sustainable solutions to resource challenges.

However, Kidd and Ellis (2012) suggest that such inclusive processes are not engaged in practice, describing both current land use and marine spatial planning as "attempts at managing resource conflicts by using forms of technical rationality which support, rather than challenge the dominant economic interests in the respective fields" (p52). In particular, they call for marine planning research to pay much greater attention to the power implications of marine spatial planning and its interactions with terrestrial and cross-border governance (ibid, pp.62-63). In doing so, they draw on the work of Flyvbjerg (2004) to advocate a 'phronetic' approach to research. Flyvbjerg explicitly rejects the communicative tradition as unable to address issues of power in planning and argues that in order to do so, 'phronetic research' must concentrate on specific instances of planning to ask who gains and who loses, in those instances, and by what mechanisms of power? However, Healey and Forester emphasise the links between communicative and critical pragmatist approaches through their shared requirement for a critical perspective on what continually becomes embedded as "normal" and "conventional" (Healey, 2009, p.284; Forester, 2013). Bridging these perspectives, this study argues that analysis of the construction of meaning in spatial planning practice emerges as central to the analysis of power dynamics.

Context

In UK land use planning, over the last century, 'coast' has represented significant sets of meanings and related policy discourses, at national, regional and local scales. We see for instance the focus on access to both countryside and 'coast' acting as a central element of the demand for greater environmental amenity that shaped the post-World War 2 social contract and the transformational environmental legislation that accompanied it. This was resolved in a strong urban/rural policy dichotomy, separating urban and industrial activities from rural and agricultural activities in different governance frameworks (Murdoch, 2006). However, while 'coast' presented challenges of spatial complexity that were to be largely confined to the periphery of policy-making (in, for example, non-statutory 'Heritage Coasts') or restrained within the boundaries of protected designations, the importance of the resources associated with the interface of land and sea continued to demand more substantive policy responses. Integrated approaches to coastal planning and ecosystem-based management were developed in this context, drawing on much wider international discourses of sustainability. These continue to destabilize boundaries associated with land ownership or place identity by stressing interconnectedness of both ecosystems and socio-environmental space. A growing emphasis on defence and risk management, in response to the threat of sea flood and erosion, exacerbated by climate change, has presented an alternative framing for coastal policy in the latest National Planning Policy Framework for England (DCLG, 2012), in particular. At the same time, it is clear that the development of offshore oil and gas extraction and, most recently, large-scale wind farms in the marine environment relate to global economic drivers, to which land-based development policy aspires to connect.

Tensions between large-scale environmental protection and industrial development in the UK are arguably at their most intense in the coastal arena (Smith et al, 2012). But just what does this arena encompass? In the two case study areas under investigation in this study, the juxtaposition of high-level (international) policy for environmental protection and pressure for industrial and urban development is not immediately obvious. They are located on the border between England and Scotland, on coastlines that tend to be thought of as remote and undeveloped. The local and sub-regional economies associated with their settlements are largely peripheral, while their environmental profiles are accorded high status through international nature conservation designations. National landscape designations, a growing emphasis on the tourism economy and second home pressures suggest the development of "consumption landscapes", while, on the other hand, household incomes for the economically

active in these areas are among the lowest in the UK (Copus et al, 2011). This creates sites of deep development conflict, involving struggles to find new narratives for future development and future generations. In analyzing these struggles, it is possible to identify the mobilization of power, around alternative, conflicting development pathways and to explore how alternative pathways are included or excluded from policy framings and thus policy outcomes. This opens up opportunities to liberate new development approaches that can sustain both ecologically benign and socially equitable outcomes. In this respect, development policy for the 'coast' offers not only a new frontier for resource development and management but also for spatial policy and governance practices.

Conceptual framework

The conceptual framework for the study, as developed in chapter 2, draws particularly on the work of Hannah Arendt and Michel Foucault in using an understanding of power as the capacity to act to secure social and ecological functioning. This explicitly distinguishes the concept of power from that of violence, which employs inherently destructive mechanisms of domination and coercion. While, arguably, violence may be used as an instrument of power, the distinction between productive and destructive mechanisms is important to the evaluation of power relationships developed in this study. This productive power operates through the discursive structuring of spatial functioning and identity. In this frame, 'coast' can be perceived and analysed as a complex matrix of ideas, values and practices, involving processes of assertion of identity and organizing space, that are in constant dialectical relationship (Harvey, 1996; Richardson and Jensen, 2003). It is on this basis that processes of the discursive creation, re-creation and mobilization of spatial imaginaries of 'coast' can be differentially harnessed by particular interests and networks. Spatial imaginaries are ways in which the functional characteristics of a space are known and identified e.g. 'urban', 'rural', 'regional', 'marine', 'coastal'. As such, they are carriers of power and inherent to spatial governance processes.

In this relational geography, in which actors, knowledge and networks co-constitute one another, spatial imaginaries incorporate complex layers of assumption about what is happening, what is viable, what is important and what can essentially be ignored in the human/non-human environment. They are created through multiple networks of knowledge creation and negotiation. As such they are continually being made and remade. They are also essentially agonistic, in that they can be seen to express both what they include and what they

exclude, encapsulating an arena of inherent instability or struggle, in highly dynamic performances of power relations (Healey, 2007; Hillier, 2007).

Understanding spatial imaginaries as carriers of power relations bridges structural and agentic understandings of power. The spatial imaginary is open to actor reconstruction but it can actively impose particular relations of power because of the ease with which actors accept it as a categorization of "reality". It thus can play a central role in what Davoudi (2015, p.322) describes as the demarcation of knowledge from non-knowledge and thus, in the creation of patterns of exclusion and inclusion. Such accepted categorizations are deeply cultural, as well as socio-political, and the work of reconstructing them is essentially cultural work, involving "a continuous dynamic process of spatial interpretation, sense making, performance and communication" (Ernste, 2012, p.97) and the need for awareness of structures and processes of domination and exclusion.

As Murdoch (2006, p.156) points out, planning "comprises a key means by which spatial imaginaries are 'performed' or 'enacted'". Strategic development planning faces intrinsic conflicts between legitimizing narratives, which in turn draw on underpinning discourses of human-nature relationship. It juxtaposes scientific, rationalist understandings of change in large-scale physical and ecological systems, on the one hand, with discourses of participation, identity, devolution and "multiple rationalities", on the other (Davoudi, 2009 and 2012; Davoudi et al, 2009). The research literature points to a complex range of discourses underlying coastal imaginaries in particular. These include not only those discourses clearly associated with Western industrialism but also competing discourses associated with traditional commons, and liminal or marginal social spaces. New forms of statutory marine and terrestrial plan reframe the ways in which both established and new networks compete and collaborate. They introduce, or at least enable the introduction of, new conceptual entities and new discourses. Davoudi argues that planners not only "perpetuate the socio-political and institutional structures in which they operate" but are also in a position to "carve out spaces for creativity and novelty to bring about change" (Davoudi, 2015, p.323). In this context, it is vital that such actions, and the mechanisms underpinning them, are open to view and to critical analysis.

Research Questions

Based on the conceptual framework, examination of the mobilization of spatial imaginaries of coast within development governance offers an opportunity to explore mechanisms of power relations inherent in spatial policy-making, as set out in the research aim above. Drawing on the phronetic approach advocated by Flyvbjerg, it uses detailed analysis of specific case studies of practice in spatial policy-making to uncover these mechanisms of power. It is in this context that the leading research questions for this study have been developed as follows:

1.   How do different constructions of the spatial imaginary of 'coast' relate to power in development governance?
   a.   What are the conflicting development discourses active in policy-making?
   b.   How are spatial imaginaries of the coast mobilized and how do these relate to the conflicts identified?

2.   Do constructions of coast in development policy-making enable dominant development discourses and disable alternative discourses?
   a.   Is there evidence of the exclusion or repression of policy alternatives? Which alternatives are included and which are excluded?
   b.   How do constructions of coast relate to hegemonic or dominant development discourses?

3.   What are the implications of the conceptual framework for the theory and application of development governance aimed at sustainable and equitable processes and outcomes?

Research method and case study areas

The research strategy explores the discursive construction of spatial imaginaries of coast, against the background of on-going reorientation of development planning institutions in the UK as experienced in specific case studies. It does so by tracing competing development discourses and the relationship of those discourses to the spatial imaginaries of coast identified as emergent in the case study areas. This case study approach is required to tease out the detail necessary to reveal the implications of constructions of the spatial imaginaries of coast and their relationships to alternative development narratives.

The first case study is centred on the land-sea nexus of the Solway Firth, the complex estuarine coast on the western border of England and Scotland. This has been the focus of innovative cross-border arrangements for environmental governance in the form of the Solway Firth Partnership, which was set up in the 1990s to deliver integrated management for the coastal environment. However, the Partnership has struggled to realize this objective or to establish its longer-term identity. The case study examines tensions between environmental regulation and local development aspirations and the role of dominant development discourses that engage competition in global/national markets through an emphasis on housing and high tech energy markets as development priorities.

The second case is that of the Eastern Borderlands of Berwickshire and Northumberland. While their coastal areas have long been recognized as having natural and cultural heritage attributes of international and national importance, institutional processes for long-term protection and management demonstrate fragmentation and uncertainty. At the same time, the economy of the Eastern Borderlands is strikingly peripheral, with low growth projections, low overall productivity and a workforce that is highly polarized, in terms of income, between those commuting to employment outside the area and those working within it. As a result, the socio-economic geography of the area is also highly polarized, with low household incomes and other indicators of deprivation concentrated in the former industrial centres of South East Northumberland and, at a smaller scale, Berwick-upon-Tweed, Eyemouth and Galashiels, contrasting with pressures to maintain and develop high-value rural and second-home property sectors and commuter settlements linked to Newcastle and Edinburgh.

The study sets out to use and develop tools of critical discourse analysis, in the context of place-making practice in these two case study areas. These tools extract data about the way in which spatial imaginaries of coast are being constructed and positioned in terms of qualities and associations. Textual data is generated from the thematic coding of interviews and policy texts and analysed in the context of detailed secondary data, used to identify dominant and conflicting aspects of development dynamics within the case studies.

Structure of thesis

Chapter 2 develops the conceptual framework for the research. This framework will be used to identify the mechanisms through which power is both wielded and transformed, within spatial policy-making, and to focus the analytical approach of the study. Based on engagement with the literature on spatial planning theory and relational geography, it draws on insights into relationships between power and spatial imaginaries and the role of underlying socio-environmental discourses, in the context of development planning policy and practice.

Chapter 3 sets the spatial policy context for the detailed case studies by reviewing the changing relationships between terrestrial and marine-based planning policy in the UK. These changes have been identified as opening up new opportunities for both analysis and the development of spatial planning practice, as explored throughout the study.

Chapter 4 details the methodological approach developed in this context. It draws on critical discourse analysis in order to examine the creation and mobilisation of coastal imaginaries in relation to power dynamics within spatial policy-making. The chapter also sets out methodological issues for review and further reflection.

Chapters 5 and 6 detail the interaction of development and environmental policy in each of the two case study areas and identify the conflicting development narratives through analysis of both primary and secondary data.

Chapter 7 explores the coastal imaginaries identified through discourse analysis and how these relate to conflicting or competing development discourses in the case studies. In particular it seeks to consider the impact of different constructions of coast in enabling or disabling different, conflicting development narratives and points to the implications of these impacts for the case study areas.

Chapter 8 concludes with an overview of the study in relation to the research questions. In particular, it discusses its implications for the theory and practice of planning and environmental governance. It reviews the conceptual framework and related methodological issues in the light of the findings. It also suggests the potential for further related research and the development of methodological approaches to the analysis of power in planning practice.

Chapter 2. Spatial Imaginaries and Power

*"**Power - 1.** The ability to do something or act in a particular way. **2.** The capacity to influence the behaviour of others, the emotions, or the course of events. **3.** A right or authority given or delegated to a person or body." Concise Oxford English Dictionary, 2006.*

"[A]ny geography mobilised in a governance context carries power." Healey, 2007, p.231.

Introduction

This chapter describes the development of this study's conceptual framework, designed to examine the ways in which spatial imaginaries are active within power relations in development and environmental policy-making and how these can be analysed. It recognises the inherent spatial and relational (including temporal) dimensions of environment and the human activities and processes of decision-making that are both part of it and applied to it. It seeks to build on Healey's analytical framework (2007), that brought together interpretive policy analysis, relational geography and "a 'sociological' variant of 'institutionalist' analysis" (ibid, p.14), to engage with questions of power in the allocation of investment and regulation of resource use through spatial policy frameworks.

As Healey demonstrates, the institutions of governance of place are complex and shifting networks of rules and procedures through which decisions are made about the use of land and water space and associated resources and services (Madanipour et al, 2001, Healey, 2007, Hillier, 2007, Davoudi and Strange, 2009). Within these governance landscapes, the actual practice of spatial planning policy has tended to be associated with the implementation of (more or less short-term) economic priorities in contrast to the ecological priorities of environmental management policy, despite the integral requirement for strategic environmental assessment within spatial planning systems (Fischer, 2010; Kidd and Shaw, 2013). The overt emphasis on an ecosystem-based approach in the development of marine spatial planning appears to signal a new move towards ecological priorities. However, as Bonifazi et al (2011, p.11) argue, attempts to address ecological concerns through spatial planning (and the integral requirements for strategic environmental assessment) have proved "resistant to innovation", tending to be dominated by administrative rationalism and raising

fundamental issues of democratic representation. It is in such a context that "we need to rethink the way in which socio-natural relationships are conceptualised" (Hajer and Fischer, 1999, p.20) and to revisit the power dynamics inherent in such conceptualisations.

Defining Power

The way in which we define the concept of power is critical to how we understand the governance of place through spatial planning and the power mechanisms through which such governance is performed. References to "power" permeate everyday communications, associated with cause, creation, ordering, repression, competition, conflict, winning and losing, decisions, negotiations, judgement, penalties, rewards and change. The dictionary definition of the word, as given above, distinguishes between the capacity of an actor to act and the capacity to influence others and this distinction raises fundamental challenges for social research. Social theorists also seek to describe both the power of social actors and the ways in which power, and hence resources, are concentrated, dispersed and routed through social structures or networks (Dowding, 1995; Hearn, 2012; Lukes, 1986, 2004).

In the context of spatial governance (including development planning and environmental decision-making), power is generally understood as instigating, mediating or restricting processes of change in shared places or the use or modification of resources that are of shared interest. In human society, power, including the power of individuals and institutional actors, can only be understood in terms of social relations and complex socio-environmental systems of shared interest. A major tension in social theory exists between understanding of power as the capacity of an individual or an institutional actor to use or create resources, on the one hand, and, on the other hand, the understanding of power as the capacity of an individual or institutional actor to dominate or subjugate others in relation to the access and creation of resources.

For any place, at a particular period of time, we might ask: who has power to influence the production and distribution of resources and the regulation, design and implementation of development associated with environmental resources? What do the location and mechanisms of power within society mean for the achievement of environmental, social and economic outcomes? How do we recognise or quantify power? Do differences in power exclude some from development benefits or mean that some bear disproportionate costs and risks? How, when and through what mechanisms is power being wielded? How is it harnessed or

challenged? What interventions or conditions can change these relations and outcomes? These are core issues for theories of spatial planning and the analysis of planning processes and development. They highlight the necessity of defining a meaning of power for the purpose of the proposed analysis.

If we approach power as the complex of mechanisms through which human beings create, access and distribute resources, social structures (class, status groups, networks etcetera) can be understood as the "phenomena of the distribution of power within a community" (Max Weber quoted in Gerth and Mills 1948, p.181). Power in relation to resources is distributed unequally between groups and individuals. Indeed, Weber's definition of power itself was "the chance of a man (sic) or a number of men to realise their own will even against the resistance of others who are participating in the action"(quoted in Lukes 1986, p.2), thus understanding power in terms of the capacity to maintain inequity or domination. In this context, Lukes (2004) identifies "three dimensions" of power or domination. The "one-dimensional view" understands power relations as directly acting over the contrary preferences of others. The two-dimensional view understands power relations as not only prevailing against others' preferences but also acting by excluding any issues from the agenda that threaten the interests of those who hold it. The three-dimensional view adds the power to shape others' very preferences. Related, structural models of society encompass the exploitation of subordinate groups by dominant groups, in which exploitative relationships are maintained by force (or the threat of force) and/or complex processes of socialisation (e.g. ideology).

These definitions of power imply an important role for coercion (through various forms of violence) or its threat. Indeed Weber defined the nation state as "the rule of men over men based on the means of legitimate, that is allegedly legitimate, violence" (quoted in Arendt, 1970, p.35). Hannah Arendt, however, adamantly differentiates power from violence. For Arendt, power is the human ability to "act in concert" and "the condition enabling a group of people to think and act" (ibid, p.51). Increasing power implies increasing a society's capacity to achieve and maintain survival. Such power is "the essence of government" while violence is merely instrumental: a means to an end. Indeed she compares the "absolutes" of power and peace with the "means" of violence and war (ibid). While power may use violence instrumentally, violence diminishes and can ultimately destroy power. It may be either direct physical coercion or it may be "structural violence", such as the manipulation of agendas and

information and the institutionalised exclusion of voices. Habermas (1986, p.88) argues that structural violence "blocks those communications in which convictions effective for legitimations are formed and passed on". Those involved in such structurally restricted communications form convictions that give the illusion of being free from constraint. However, they "thereby communicatively generate a power, which as soon as it is institutionalised, can also be used against them" (ibid). In a comparable way, Bourdieu uses the concept of domination through "symbolic violence" through which "the dominated apply categories constructed from the point of view of the dominant to the relations of domination, thus making them appear as natural" (Bourdieu 1998/2001, p 35; Bridge, 2004).

In analysing the outcomes of power relationships for resource and ecosystem sustainability and for social equity, the distinction between power, as a productive force maximising capacity for shared problem-solving, on the one hand, and domination/coercion (or violence), which destroys such capacity, on the other hand, becomes an important consideration. As Healey notes, in planning practice "the challenge is to explore ways of promoting generative rather than destructive encounters between multiple rationalities" (2007, p.248). From this perspective, instrumental and structural violence are antithetical to achieving either sustainable resource use or equitable outcomes (Laws and Forester, 2006). It is in this context that Balastrieri (2014, pp.306-307) refers to "pathological" forms of governance, in which planners "let themselves be guided by logics responding to the interests of the dominant social groups". This distinction between power and violence is inherently difficult, particularly when coercion or violence is not direct but operates in the symbolic sense highlighted by Bourdieu, where relations of destruction or inequity are assumed to be the result of 'natural', 'common sense' or even unavoidable factors. However, it relates to ethical issues at the heart of both planning theory and practice, demanding that the processes and outcomes of power and issues of destruction and violence must be addressed.

Power, Knowledge and Discourse

Michel Foucault stresses the centrality of the "unmoving histories: the history of sea routes, the history of corn or of gold-mining….the history of the balance achieved by the human species between hunger and abundance" (1969, p.4). He argues that power in relation to such resources cannot be exercised within human society except through the production of knowledge or "truth":

"…we are forced to produce the truth of power that our society demands, of which it has need, in order to function: we *must* speak the truth; we are constrained or condemned to confess or to discover the truth. Power never ceases its interrogation, its inquisition,

its registration of truth …" (Foucault, 1986, p.230, original italics)

What is at issue in relation to resource management in environmental governance, therefore, is how resources and processes of 'management' or 'development' are defined as being 'true' (Richardson, 1995). This 'truth' or 'knowledge' about 'reality' forms the basis for both conflictual and cooperative communication. Indeed, meaning production is critical to all the mechanisms involved in relations of power. As his emphasis on the "unmoving histories" of the struggle for survival suggests, power for Foucault, as for Arendt, has absolute properties: "[it] needs to be considered as a productive network that runs through the whole social body, much more than as a negative instance whose function is repression" (Foucault, 1976, p.120). As Judith Butler explains:

"We are used to thinking of power as what presses on the subject from the outside, as what subordinates, sets underneath, and relegates to a lower order. But if, following Foucault, we understand power as forming the subject as well, as providing the very condition of its existence and the trajectory of its desire, then *power is not simply what we oppose but also, in a strong sense, what we depend on for our existence and what we harbour and preserve in the beings that we are*."
(Butler, J., 2004, p.32)

Knowledge, in the form of discourse, is the basis of this productive network. The capacity to create or control knowledge in the Foucauldian sense is integral to power because knowledge creates what can be experienced, agreed or contested. At the same time, it involves an inherent agonism: "a relationship which is at the same time mutual incitement and struggle" (Foucault, 1982, p.342). Thus, the possibility of resistance and transformation is inherent in this understanding of power. For Foucault all knowledge is political because it is a product and a mechanism of power. At the same time, at least in his later writing, power can only be called power (and not force or violence) when "it acts upon, and through, an open set of practical and ethical possibilities" (Gordon, 1991, p.5). It is thus where there is no possibility of practical resistance, that there is violence rather than power.

Analysis of power requires us to see how discourses "at a given moment, in a precise conjuncture and by means of a certain number of transformations, have begun to be economically advantageous and politically useful" (Foucault, 1986, p.236). What are the discourses at work, how are they expressed through social actors and what are their effects? It is only through exploring these questions that it is possible to understand how the social capacity to act and change operates or how actions and strategies of resistance and innovation can be realised (Foucault 1982; Haraway, 1994; Oels, 2005). However, while Foucault is very clear that discourses are highly functional, he stresses that they cannot be readily categorised, as their functionality is not only complex and multi-faceted but also always context-dependent.

Healey (2007) uses Giddens' distinction between discursive (framing) power and allocative (economic) and authoritative (political) forms of power (Giddens, 1979; Hearn, 2012). However, it can be argued that discursive power underpins the legitimacy and thus the functional maintenance of both allocative and authoritative power. It is in this context that, as Healey and Shaw (1994, p.427) demonstrate, policy options are silenced because they cannot be incorporated into or reconciled with "dominant conceptions of nature-society relations and of the relation between state, economy and society". Alternative arguments and solutions therefore find no voice and thus no practical expression. In particular, development pathways aiming to achieve recognised sustainability objectives such as zero carbon emissions, the long-term protection and rehabilitation of biodiversity and ecosystems and decent standards of living for all members of human society remain elusive (Swyngedouw, 2010). The consideration of power relations in the context of the construction of space (and place) must be expected to offer insights into ways of overcoming these barriers to the sustainable and equitable development of resources.

Mühlhauser and Peace (2006), in their review of environmental discourses, comment on

> "the sheer quantity of environmental discourses, which has vastly increased in recent decades in response to worldwide awareness of the global environmental crisis, and which is produced from numerous disciplinary and linguistic backgrounds" (p.457).

At the same time they note "a blurring between discourse and metadiscourse" (ibid). This raises key issues about what is covered by the use of the term "discourse".   While concepts of discourse refer broadly to clusters of language, meaning, and associated action, with specific spatio-temporal existences, these concepts are used at many different scales and in

many different contexts, in relation to, for instance, individuals, groups, organisations and networks. Language operates in these contexts not only as a means through which humans and institutions establish and adapt their own identity and the identity of all elements of their society and environment but also as a communication tool. The conceptual breadth of different approaches to defining and analysing discourse requires the researcher to not only specify the definition of discourse with which they are working but also to distinguish it from, and possibly relate them to, alternative definitions.

In this context, there is a major underlying distinction between the Foucauldian and Habermasian understandings of discourse (Hajer and Versteeg, 2005). For Foucault, discourses are distinct systems of knowledge (and associated practice): ensembles "of ideas, concepts and categories through which meaning is given to social and physical phenomena" (ibid, p.175). He understands both human agency and social structure as being "constituted by discourses" (Jones et al, 2011, p.129). In *The Archaeology of Knowledge* (1969, 2002, p.121), Foucault defines discourse as the group of statements that belong to a single system of (discursive) formation, such as "economic discourse, the discourse of natural history, psychiatric discourse": in other words, what Mühlhauser and Peace, describe as metadiscourse.

Habermas, however, is interested in what he terms "practical discourse" involving what he sees as the negotiable storylines through which agency is created and negotiated, challenged, resisted and renegotiated, at all levels of scale, whether between individuals or between organisations. These different conceptual approaches suggest the requirement to recognise quite different, though inter-related, subjects for analysis. The key difference between the Habermasian and Foucauldian perspectives can be summarised in terms of the nature of agency. Foucault emphasises deep structural patterns and discontinuities in the meanings attached to linguistic entities like 'the environment'. Habermas maintains that people and organisations engage in robust creation and re-creation of meaning and is specifically interested in how such discourse is used in immediate spatio-temporal contexts. This is reflected in Fairclough's description:

> " Discourses constitute part of the resources which people deploy in relating to one another – keeping separate from one another, cooperating, competing, dominating – and in seeking to change the ways in which they relate to one another."
> (Fairclough, 2003, p.124).

However, the two perspectives can clearly be seen to overlap as structural discursive assumptions are likely to be a fundamental aspect of the meaning involved in any communicative act.

Power, Relational Space and Place

Foucault's empirical research showed how particular sets of power relations become stabilised in discrete spatial zones at the micro-level, leading to growing interest in such power/knowledge systems at macro-scales (Allen, 2003). As Murdoch (2006, p.78) argues, "there is no clear distinction between power, knowledge, practice and space - all these aspects are interwoven with one another." In this context, he identifies the need for research to identify "the spatially mediated relationships that compose modern systems of governmental power in order to show how [power] relations are stabilised across heterogeneous spaces" (p.52). This highlights the need to explore how "particular kinds of power take effect….through the tangled arrangements of place" (Allen, 2003, p.190).

This relational understanding of place is one of "complex constructions created by the interaction of actors in multiple networks" (Healey, 2007, p.2). Actors in this context are multiple entities, including not only individuals, organisations and groupings, but also living beings and systems and inanimate entities (Latour, 2005; Massey, 2005). Heterogeneous spaces are comprised of assemblages of discourse, practices and materials. For Hillier (2007, p.62) such assemblages are the "functional connections and flows of force and power relations which construct the social". Power is understood as emerging through these assemblages of materials and practices, framing how particular sites are organised.

This relational perspective understands knowledge as a function of networks or assemblages (Latour 1996; Hillier, 2007, 2010). Knowledge, through both discursive and material practices, is being constantly created and recreated through processes of connection, flow and disconnection. Both knowledge and the knower are networks. Knowers are suffused with connections. Indeed the production of any form of shared knowledge changes the knowers themselves. Productive power - the power, to create, produce, survive, as described above, happens within networks or assemblages. For Hillier (2007, p.19), this means that spatial planning and governance must come to grips with "a world of contingency, rather than essentialism, of movement rather than absolutes, in which entities do not exist as discrete, isolated systems in space and time". Murdoch (2006, p.105) argues that in such a context "an

effective post-structuralist politics of spatiality should be concerned with the interaction between emergent process and territorial coherence and it should aim to 'shape' or 'steer' this interaction in ways that ensure an enhancement of ecological diversity and integrity". He highlights the spatial zone where nature and society meet in order that "we might begin to elaborate an ecological approach that displays the full ecological consequences of human action."(ibid, p.194). In this context, governance involves multiple, multi-scalar webs of relations and practices (Healey, 2007; Davoudi and Strange, 2009; Jay, 2012).

Definition of spatial imaginaries and place-frames

As summarized in Box 2.1, spatial imaginaries are understood as representations of space that hold shared, operative meaning and as such enact or perform relations of power (Gregory, 2001: Boudreau, 2007; Hillier 2007). They are power assemblages, which in turn can be configured and reconfigured into other power assemblages. In a recent review of spatial imaginaries research, Watkins (2015) stresses both their representational and performative roles. At the same time, the concept is being developed in an array of potentially conflicting ways and Watkins urges the importance of being explicit about its definition in specific research contexts.

- Represents/narrates spatial meaning (identity/functionality)
- Differentially mobilises competing discourses
- Enacts or performs relations of power through inclusion in place-frames
- Is combined and recombined with multiple spatial imaginaries within emergent place-frames

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Box 2.1 Characteristics of a spatial imaginary, as defined in this study

Place-frames are conceptualized as the 'conceived' (technical) spaces of policy-making (Lefebvre, 1991), which nonetheless harness power from the 'perceived' space of spatial imaginaries. It draws on Massey's concept of places as "temporary constellations", which are made up of heterogeneous networks (that can include both spatial imaginaries and material practices), selected and "bundled" together through social processes (Massey 2005).

Places are thus

> "selected from a space-field of trajectories into configurations that have purpose and meaning, but *whose members may be reclaimed and repurposed into other configurations when viewed from other perspectives*." (Pierce et al 2011, p.58, italics added).

This bundling process is simultaneously structural and agentic in discursive terms. A 'place-frame' is a "socially negotiated and agreed place/bundle that is rhetorical and politically strategic" (ibid, p.61). This is also comparable to the 'policy frame' defined by Rein and Schön (1993, p.146) as "a way of selecting, organizing, interpreting, and making sense of a complex reality to provide guideposts for knowing, analysing, persuading and acting". It is the place-frame that is specifically targeted through governance technologies such as the development or management plan. The negotiations involved are inherently agonistic:

> "place-contestation is always on-going, as particular place-frames are tactically deployed toward strategic (though perhaps not always conscious) political aims" (Pierce et al, 2011, p.60).

At the same time, shared, often unconscious, assumptions and connections also underlie areas of agreement and what Healey calls the act of 'recognition' through which a strategic plan comes into existence (2007, p.189). The governance activity of spatial planning thus enacts the framing and/or re-framing of culturally informed imaginations of spatial ordering (Ernste 2012).

It is in this context that Pierce et al (2011) argue that analysis employing a relational place-making approach should focus on the "place/bundles" drawn on by actors in the place-framing process. They contend that this involves identifying "points of contention and commonality in the elements of the place/bundles experienced by actors on opposing sides of a conflict" (ibid, p.60). The mobilisation of spatial imaginaries within place/bundles offers both a conceptual and methodological handle on their role in the power dynamics of policy-making. It suggests a wider interpretation than that used to describe how planning policy-makers use and co-construct spatial imaginaries to achieve strategic outcomes (Murdoch, 2006; Healey, 2007; Davoudi and Strange, 2009). Rather it recognises spatial imaginaries as more widely generated social phenomena, which are actively drawn upon in place-framing processes of policy-making to mobilise power. A place-frame is a temporarily stabilized power complex of meanings and associations that has authoritative power to order space. The agency and potential power outcomes of a place-frame rely on its capacity to bundle together spatial

imaginaries that emerge from agonistic processes of establishing 'truths' about development and nature, processes and resources (Fig. 2.1) (Pierce and Martin, 2015). At the same time, selective bundling or mobilisation of imaginaries can result in 'violent' exclusion and silencing of interests and alternative pathways.
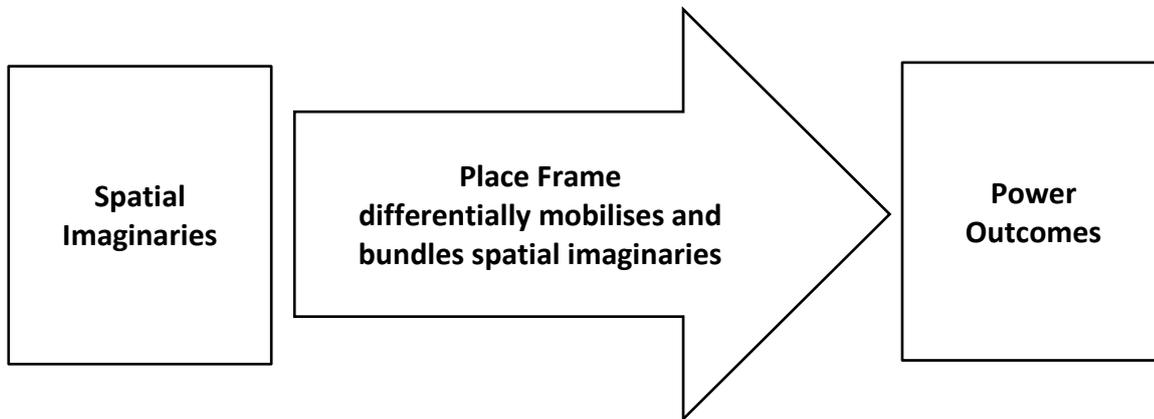
Figure 2.1 Spatial imaginaries, place frame and power outcomes

Despite this re-focusing of the definition of spatial imaginaries, Healey's analytical approach to the interrogation of component spatial imaginaries remains directly relevant to understanding their role in power dynamics and outcomes, as it proposes that we seek to address the questions set out in Box 2.2.

1. How is the identified spatial imaginary positioned in relation to other spatial entities? What are its connectivities and how are these produced?
2. How is the spatial imaginary bounded and what are its scales?
3. Who or what is 'in focus'? Who is present? How are non-present issues and people brought 'to the front'? Who/what is 'in shadow'?
4. What are the key descriptive concepts, categories and measures?
5. How is the connection between past, present and future established?
6. Whose viewpoint and whose perceived and lived space is being privileged?

Box 2.2 Proposed analysis of spatial imaginaries (based on Healey, 2007, pp.209-210)

The political or strategic agency of bundled imaginaries depends on the ways in which they are able to harness and combine discursive 'truths' about development (Boudreau, 2007). Underpinning such 'truths' are competing discourses of 'human-nature being' (Dryzek, 2005). It is against this discursive field of human-nature relationships, which forms the underlying "landscape of differences and congruities", that competing discourses of development have meaning (Wagenaar, 2011, p.52). Indeed, Peet and Watts (1993) position nature discourse as "an almost primordial element in discursive formation" (p.231). Power relations are embedded in the ways that nature is conceptualised (Foster, 2010). In this context, it therefore becomes necessary to consider such discourses, as discussed in the next section.

Underlying Discourses of Human-Nature Relationship

Williams (1973) traces how an urban/rural dichotomy has been fundamental to the expression of power relations in Western societies, underpinning processes of possession, enclosure, exclusion, and command of environmental resources, throughout the development of both agricultural and industrial capitalism. This dualism of human and nature, (social order and the material world) functions as an overarching Foucauldian discourse (Harré et al, 1999). Its sub-discourses embrace the ownership, stewardship, control and transformation of both natural and social resources, at the same time as an understanding of 'nature' as a separated spiritual and moral life (Shields, 1991; Hajer and Fischer, 1999). Williams (1973, p.158) summarises this persistent discursive framework as follows:

> "There is the separation of possession: the control of a land and its prospects. But there is also a separation of spirit: a recognition of forces of which we are a part but which we may always forget, and which we must learn from, not seek to control. *In these two kinds of separation the idea of Nature was held and transformed."* (italics added)

These separations generate discursive relationships of both alienation and nostalgia for Nature, shaped by and fixing underlying relationships of power and ownership, identity and 'other', and expressed through antagonisms between cultivated land and wilderness, or between the domination and protection of nature (Eder, 1996). However, such dualisms are neither biological givens nor are common to all human cultures (Torgerson, 1999, Harré et al 1999).

For Harré et al (1999), the environment is

> "a blurred linguistic construction, a hybrid between nature and culture, matter and humankind, causality and morality, as multifaceted as the world it purports to represent. The justified and projected concern that it attracts is the environmental discourse" (pp.185-186).

As discussed above, such discourses derive power from the acceptance of their claim to represent 'reality' or underlying 'natural order'. Where the prevailing understanding of natural order is fundamentally mechanistic or scientific, the validity of a discourse will be recognised by the effectiveness or persuasiveness of its association with scientific discourse. Grove (1992) argues that this predominantly mechanistic interpretation of natural systems has been privileged since the Enlightenment period in Western history. Thus, for instance, David Blackbourn (2006, p.5) quotes the Scottish philosopher James Dunbar proposing in 1780:

> "Let us learn to wage war with the elements, not with our own kind; to recover, if one may say so, our patrimony from Chaos, and not to add to his empire."

In this worldview, the underlying mechanisms of nature (our natural heritage or patrimony) were to be uncovered, reproduced (as required), cleansed and subjugated. The drainage of wetlands was a "greening" process: transforming complex ecosystems to green, productive agriculture. Aspects of this dominant discourse are revealed in the cultures of gardening and landscaping as they subsequently developed: dialogues between natural and human productivity. Nature was the source of raw material, while human endeavour brought order and progress. However, Williams (1973, p.1) argues that this discourse evolved in relation to another older set of ideas, as "a contrast between country and city, as fundamental ways of life, reaches back into classical times". The rural or 'pastoral' is associated with peace, innocence and simple virtue (the 'rural idyll'), but also with backwardness and limitation. In contrast, the urban is associated with learning, communication and order ('progress') on the one hand and with noise, worldliness and ambition on the other.

Haila (1999) argues that Romanticism in European art and literature further promoted the conception of nature as 'Other' and thus as challenging to and liberating from the mundane preoccupations of human existence. However, their continuing separation meant that scientific materialism and the perception of nature as primarily a collection of 'natural resources' underpinning expanding and colonising capitalism, could be embraced at the same time as an understanding of nature as a separated spiritual and moral life. Romantic art, along with associated styles of architecture, landscaping and garden design, could thus be consumed

as symbols of the naturalness of hegemony, for which "the language of nature and Other implies inevitability" (Hajer and Versteeg, 2005, p.180).

Environmental problem-solving	Includes 'administrative rationalism', 'democratic pragmatism' and 'economic rationalism', combining regulation and market incentive mechanisms to address issues arising from the industrialist status quo.
Survivalism	Proposes control by a global political elite to ensure life-support capacities.
Sustainability	Consciously uncouples the idea of growth from depletion of resources and pollution through technical fixes and changes in human behaviour
Green radicalism	Alternative interpretations of humans, their society and their place in the world.

Box 2.3: Dryzek's four types of discourse within Western Industrialism
Source: Dryzek (1997)

Industrialism and ecological modernisation

Dryzek (1997) identifies the dominant discourse of contemporary Western environmental relationships more narrowly as that of 'industrialism' with its overarching commitment to growth in material production and the elision of nature and capital. He develops a Habermasian approach to environmental discourses, by emphasising their role in open discussion:

> "A discourse is a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Each discourse rests on assumptions, judgments, and contentions that provide the basic terms for analysis, debates, agreements and disagreements, in the environmental arena no less than elsewhere"(p.8).

Within industrialism, the shaping force is growth and intensity of resource use, rather than hierarchy or ownership. In this context, Dryzek identifies four areas of conflicting but also overlapping types of 'discourse' within environmental politics (Box 2.3). The environmental problem-solving type of discourse treats the resource depletion and pollution inherent to industrialism as amenable to technical solution. In this context, Dryzek identifies a shift from what he terms 'administrative rationalism', privileging professional science, administration and bureaucracy, to what he terms 'democratic pragmatism', which responds to the experienced deficits of effectiveness, implementation and legitimacy in administrative rationalism by enhancing democratic involvement, policy dialogue and dispute resolution. Democratic pragmatism, in turn, has been dominated in late twentieth century liberal economies by what Dryzek terms 'economic rationalism' which privileges the role of markets in environmental policy framing and development. In contrast, 'survivalist' discourse differs fundamentally by rejecting the assertion that environmental problems are amenable to technical fixes within industrial institutions. It represents the overall trajectory of industrialism, and its assumptions of unlimited growth/production, as inherently destructive of global ecosystems. Survival of life-support mechanisms will therefore require a subordination of industrialism to all-encompassing hierarchical growth constraints, engineered by scientifically literate political elites.

'Sustainability' discourse, on the other hand, has sought to fundamentally decouple the link between environmental damage and development. Like survivalism it emphasises global ecosystems. However, in contrast, it reasserts the importance of democratic involvement and coordinated collective efforts at both transnational and local scales to the achievement of environmentally benign and socially just development solutions. Dryzek argues that the idea of 'ecological modernisation' is the most developed expression of sustainability discourse. This aims to redesign the processes of industrialism on the basis of ecological principles: "the ecological restructuring of capitalism" (ibid, p.145). In this context, Backstränd and Lövbrand (2006) point to the emerging discourses of what they call "green governmentality" and "civic environmentalism", with the former extending government control to all aspects of environment through institutionalised "eco-knowledges" that:

> "In the name of sustainable development and environmental risk management …..expand bio-politics to all conditions under which humans live…The numerous scientific expert advisors that have emerged on the environmental arena during the past decades play an authoritative role in the construction of these eco-knowledges" (ibid, p.54)

The discourse of civic environmentalism is associated with that of sustainable development encapsulated in the 1992 UN Conference on Environment and Development (the Rio Summit). Within this discourse, effective solutions to environmental problems can only be realised through directly involving all those affected. Backstränd and Lövbrand (2006) also suggest "a more radical edge of the civic environmentalism discourse" that "advocates a fundamental transformation of consumption patterns and existing institutions to realise a more eco-centric and just world order"(p.56).

Similarly, the discourses of 'green radicalism' identified by Dryzek point to the emergence of alternative discourses to that of industrial society. Thus, for instance, in Beck's identification of the 'risk society', nuclear, chemical, genetic and ecological mega-hazards spell "the 'end of the Other', the end of all our carefully cultivated opportunities for distancing ourselves"(Beck, 1998, p336), erasing social differentiations within and between nation states, and, indeed, between the urban and the rural. Beck argues that realisation of the simultaneous destruction of nature and the destruction of markets will necessarily trigger revolutionary new structures of ecological democracy. The 'end of the Other' is also claimed for 'ecocentric' or 'biocentric' discourses, such as those of deep ecologists Arne Naess (1998) and Robin Eckersley (1998). However, the emphasis of deep ecology has generally been on the defence and restoration of wilderness ecosystems, with much less, if anything to say about human populations. Indeed, a number of such discourses either explicitly or implicitly reject the possibility of the unity of humans and Nature.

Dryzek proposes an 'ecological democracy' that begins to blur the boundary between human social systems and natural systems, drawing on multiple discourses in a process of social learning. Indeed, he argues that variety of discourse is as likely as hegemony. This emphasis on the diversity and intermingling of environmental discourse is also developed by Myerson and Rydin (1996), who propose the metaphor of an 'environet' for "an emerging culture of argument" based on " a net of overlapping possibilities for constructing arguments by bringing together different concepts and ideas through figures of speech" (Myerson and Rydin 1997, p 378).

The ecosystem approach

Despite a growing theoretical emphasis on network models of socio-environmental identities and relationships, Murdoch (2006) points to the persistence of society-nature dualism in the English planning system, expressed through the persistent spatial distinction of urban and rural designed to keep "heterogeneous urban processes at bay" and "rural nature safe and secure" (p114). This has held sway despite what Murdoch details as the post-war construction of rural space around the needs of an industrialised agriculture, resulting in widespread water pollution and loss of biodiversity. It also has persisted despite the growing recognition of ecological complexity and relationships, represented in the 'ecosystem approach' to development planning and management. At the same time, as Marsden et al (1993) document, values associated with these spatial distinctions also remain the focus of intense contestation.

For Kidd et al (2011) the developing 'ecosystem approach', encapsulated in the United Nations Convention on Biological Diversity, agreed in 2000, represents "a paradigm shift in planning and management of the natural environment and the resources that are derived from the functioning of component ecosystems" (p1). This approach views humans as embedded in nature and development and management as processes of continuous experiment. At the same time, it highlights principles and objectives based on the conservation and sustainable use of genetic resources (including the ecosystems they comprise) and "the fair and equitable sharing of the benefits arising" from their utilisation (Box 2.4). It stresses inherent uncertainty in tandem with rationales for achieving equity in resource outcomes. In addition, the emphasis on biodiversity prioritises concern at unrelenting trends in the depletion of biological reserves (Secretariat of the Convention on Biological Diversity, 2014). Despite the ecosystem approach (EA) being acknowledged as "a central concept shaping the development of new planning and management arrangements for the sea", there is "still considerable debate about what is actually meant by EA and how it might be applied" (Kidd et al, 2011, p.2).

- The objectives of management of land, water and living resources are a matter of societal choice (Principle 1)
- The ecosystem approach should
  - involve all relevant sectors of society and scientific disciplines (Principle 12)
  - be undertaken at the appropriate spatial and temporal scales (Principle 7)
  - consider all forms of relevant information (Principle 11)
  - seek the appropriate balance between, and integration of, conservation and use of biological diversity (Principle 10)
- Management should be decentralised to the lowest appropriate level (Principle 2)
- Conservation of ecosystem structure and function, to maintain ecosystem services, should be a priority (Principle 5)
- Ecosystems must be managed within the limit of their functioning (Principle 6)
- Ecosystem management should
  - Reduce market distortions that adversely affect biological diversity;
  - Align incentives to promote biodiversity conservation and sustainable use;
  - Internalize costs and benefits in the given ecosystem (Principle 4)
- Ecosystem managers should consider the effects of their activities on adjacent and other ecosystems (Principle 3)
- Recognising the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term (Principle 8)
- Management must recognise that change is inevitable (Principle 9)

Box 2.4 Principles of the Ecosystem Approach Identified by the UN Convention on Biodiversity

Adapted from Kidd et al, 2011, p.9

Davoudi (2012) describes the persistent dualism inherent in English spatial planning as continuing to be informed by "a deep-seated anthropocentric view of nature, and of human as its steward or even its master". All of the identified discourses, as listed in Box 2.5, can be seen as variations within the overarching discourse of industrialism within planning.

Local Amenity:	Nature as a refuge for human enjoyment. Includes both aesthetic and recreational values in daily life
Heritage Landscape:	Human stewardship of relic pre-industrial landscape. Emphasis on national hierarchy of significance.
Nature Reserve:	Biocentric ecological functioning is given precedence over human use
Resource Storehouse:	Human as the master of a mechanistic nature
Tradable Commodity:	Nature as a social product valued through the marketplace
Problem:	Requires human amelioration of damage
Sustainability:	Nature as both substitutable and non-substitutable capital upon which development depends
Risk/Threat:	Nature as threat to human society. In line with the global discourse of "securitization"

Box 2.5: Environmental discourses in English planning policy

Amended from Davoudi (2012)

These include a new perspective, which is that of "seeing the environment as a natural hazard and a threat against which resilience should be built" (ibid, p.62), in line with the wider and dominating global discourse of 'securitization', within which the environment assumes 'enemy' characteristics. It can be argued in the light of Williams' analysis, that these are all discourses within a capitalist market-focused hegemony, distinguished by their differing emphasis on, among other factors, the degree of market regulation and the interpretation of dominant productive processes (e.g. different technologies and resource potentials) and the nature, specialisation and reproduction of labour (including the role of 'experts'). However, even within dominant discourse-complexes such as those described above, counter-discourses are both inherent and potentially emergent (Mouffe 1992). As Murdoch (2006) argues, an ecosystem approach recasts land and water-based resources within "sustainable assemblages", comprising "rich ecologies of the human and the non-human, the social and the natural, the material and the immaterial" (ibid, p.127). This recognises that there are multiple alternative trajectories for development.

The commons discourse

A significant alternative or counter-narrative that can be identified in the literature is that of 'the commons'. Wagner argues that while the commons imaginary is based on pre-industrial practices of communally managed land use, it has come to represent:

> "opposition to various contemporary forms of state intrusion and economic development, most notably those involving contemporary forms of "enclosure" and privatization." (Wagner, 2012, p.621).

Within this frame, 'commons' and 'commodities' are diametrically opposed and there is a strong presumption of the interrelationship of human communities and their immediate environmental locations or regions, within complex, situated systems (Ostrom, 1990, Ruiz-Ballasteros & Gual, 2012). However, as Swyngedouw (2012) notes, it is shadowed by its historical association with communism. It also has its rational-technical proponents who promote commons management as a purely technical, and therefore elitist, managerialist practice.

The status of the seas as existing outside rules of ownership has been reflected in the concept of the Freedom of the Seas in international agreements and treaties dating back to at least the 17th century. Where nation state rights and jurisdictions were asserted for inshore waters, these generally encompassed common rights for all their citizens. However, in the second half

of the 20th century, these freedoms have been replaced by the United Nations Convention of the Law of the Sea, with an emphasis on the marketization of marine resources. As Maria Damanaki, EU Commissioner for Maritime Affairs and Fisheries, explained in a speech to the European Parliament in December 2011:

> "Governments are waking up to the fact that we have just about reached the limit of what can be squeezed from the 29% of the planet that is land. Therefore, it becomes clear that we need to look even more to the sea." (ESPON, 2013, p.6)

In this context, Olson (2010, p.293) describes how "the marine commons" are currently being transformed by the application of market mechanisms:

> "concomitant with a move towards ecosystem-based management that also partakes in a policy environment imbued with the commodification of nature, in which environmental services are ranked and valued according to neoliberal precepts".

Coastal Imaginaries

Box 2.6 summarises the axes along which such discursive polarities lie. It suggests that there are particular tensions between the human/nature dualism at the heart of industrial culture, focused on the rationales of growth and market efficiency, control, boundaries and thresholds on the one hand and, on the other, counter discourses of human/nature unity, interest in alternative cultural framings and focus on common space, well-being and sustainability. However, these discursive frameworks can be mobilised in many interactive ways to support competing development trajectories in the process of place-framing. The discourses associated with the coastal environment can be expected to reflect this broad range of wider environmental discourses. However, while the specific characteristics of coastal locations, communities and activities offer potential insights into the discursive processes involved, these have been little explored in the literature.

In their examination of discourses involved in the coastal governance of Western Australia, Hofmeester et al (2012) identify a dominant mechanistic understanding of both the coast and coastal governance mechanisms, accompanied by a fear of crisis or catastrophe. They describe the dominant worldview as characterised by the environmental problem-solving discourse of 'administrative rationalism' described by Dryzek but suggest that changing views of the controllability of nature and, indeed, the catastrophic potential of nature, have challenged belief in the managerial capacity of 'experts' and are shifting the dominant discourse towards one of 'democratic pragmatism', incorporating a more flexible and robust

Human/Nature dualism	←——→	**Human/Nature interdependency/ unity**
Industrial	←——→	**Ecological**
Urban-rural dichotomy	←——→	**Ecosystem**
Market/Ownership	←——→	**Commons**
Economic Growth	←——→	**Sustainability**
Control/Management	←——→	**Participation/Equity**
Boundaries	←——→	**Networks**
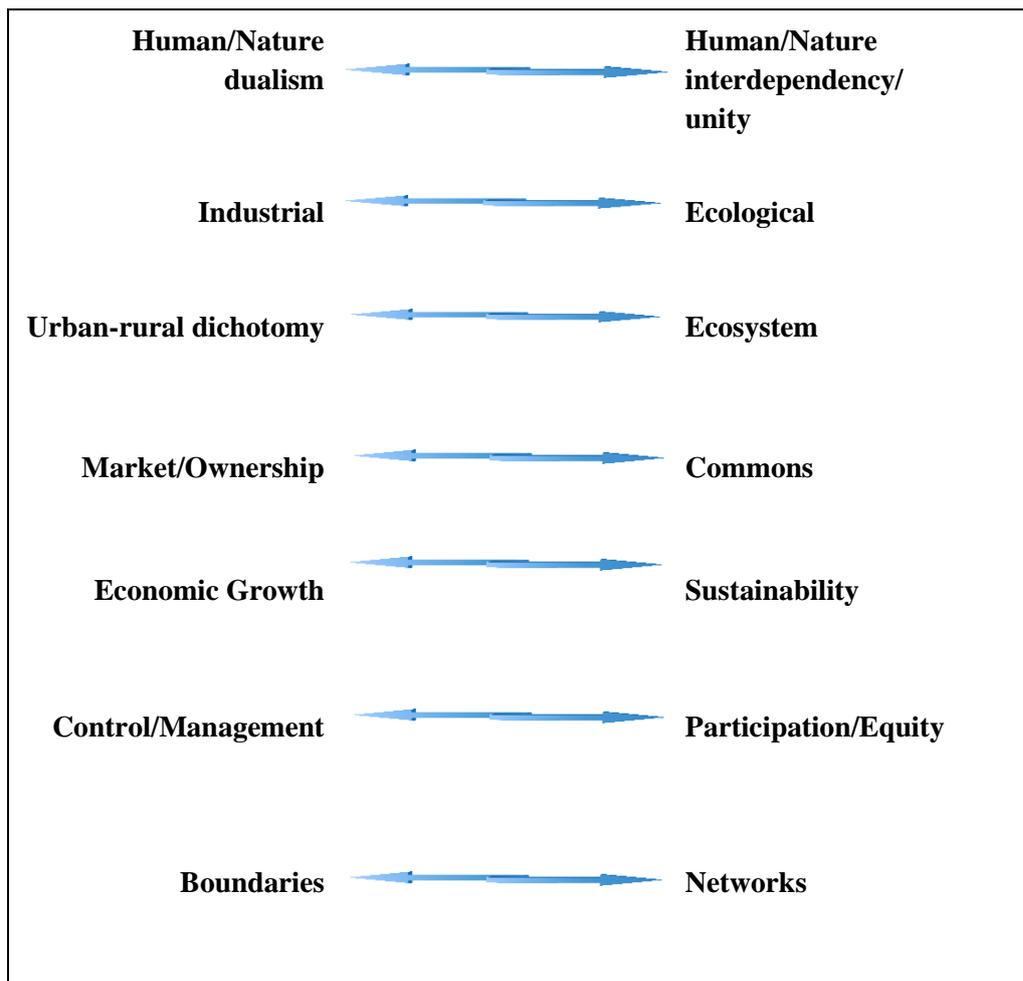
Box 2.6 Major Polarities in Development Discourse

risk model, involving increased collaboration and participation. The basic myth however, remains that of mechanistic relationships within the context of the dominant social order of capital. Hofmeester at al argue that "for long term and transformative change, it is necessary to delve into more unconscious processes or 'shadow spaces' where values, beliefs and symbolic communications create meaning and knowledge". In this context:

> "The coast is a liminal as well as a littoral space where two radically different ecosystems meet at a highly dynamic and unstable edge. Culturally the coast has represented for some, freedoms and opportunities with metaphors such as 'plenty more fish in the sea' and the allure of 'sea change' but also potentially treacherous…" (p. 721)

A major difference between terrestrial and marine/coastal environments lies in the potential and nature of ownership of territory (Peel and Lloyd, 2004; Jay, 2010; Kidd and Ellis, 2012). While the seas have operated as extensive commons, the coast shares this to greater or less extents, including its role as a gateway or threshold to these commons. Shields (1991) traces the cultural role of the seashore or beach as a "place on the margin":

> "Its shifting nature between high and low tide, and as a consequence the absence of private property, contribute to the unterritorialized status of the beach, unincorporated into the system of controlled, civilised spaces. As a physical threshold, a limen, the beach has been difficult to dominate, providing the basis for its 'outsider' position with regard to areas harnessed for rational production and the possibility of its being appropriated and territorialised as socially marginal"(p.84).

In this context, it is associated with significant expectations in terms of public access, transgression and rites of passage and significant life experiences (Stocker and Kennedy, 2009, Davidson and Entrikin, 2005).

However, Ryks (2014) notes the absence of research on the social construction of coastal environments, despite its identification as dynamic, changing and a place of marked physical difference between land and sea and the public and private spheres. His study of the impact of development planning on a "marginal" community on the northernmost coast of New Zealand reveals contrasting constructions of coast as "troublesome" and "messy" on the one hand and elite, high value real estate on the other. He describes the redrawing and extension of coastal development zones through planning processes as "coasts of containment and control…similar to, and overlapping with, the well-defined exclusive coasts that developers seek to model and perfect" (p.51).

Silver (2014) describes the integral role of a coastal identity for Canadian First Nations people on the western shores of Vancouver Island in British Columbia. This is based on the place of seafood in their lives, informing not only institutional and cultural structures but also their language and daily lives. Silver analyses the tensions between the community's interaction with wider markets and national state systems of land ownership and regulatory legislation and traditional coastal commons, resulting in "deeply-embedded impasses" (p.116). Similarly, Mulrennan and Scott (2000) document conflicts between European and indigenous constructions of land and sea space in Australia and Canada.

Conclusions

Following both Arendt and Foucault, this chapter has argued for the conceptualisation of power in planning processes as productive social action that improves the social and environmental capacity for further such action. Power is distinguished from violent or destructive processes, which ultimately damage social and ecological capacity by excluding and suppressing potentially more sustainable alternative development and management options. The mobilisation of place-frames is identified as a key mechanism through which power can be increased or undermined in policy-making processes. Place-frames draw on and combine spatial imaginaries that harness competing discourses of development. These competing discourses are rooted in alternative understandings of human/nature relations.

Foucault's approach emphasises the deep structural patterns and discontinuities in the meanings attached to key linguistic entities like 'nature' or 'the environment', underpinning dominant and alternative discourses of development. Contrasting or competing polarities within these discourses are identified. This review positions the study in terms of dominant and alternative discourses of human-nature relations and the processes of development. It identifies the role of spatial imaginaries in relational place-making as a focus for analysing discursive tensions in development governance. It suggests that understanding the coast as a social and political phenomenon will involve understanding how the meanings associated with spatial imaginaries of coast act or perform as carriers or expressions of conflicting values and interests. In order to address the main research questions, the analytical task is therefore to identify imaginaries of 'coast' and their relationship to conflicting discourses of development in the specific place-making processes involved in development policy.

Chapter 3. The Coast in UK Development Planning Policy

Introduction

This chapter explores the discourses associated with the coast in UK development planning policy and sets out the context for more detailed analysis of the construction of coastal imaginaries in the case study areas. Allmendinger et al (2002) argue that within land use policy, coastal areas have "traditionally been regarded as being indistinct from the 'wider environment'" (p.175). They ascribe the decline in water quality in coastal regions, the degradation and destruction of critical habitats, the loss of key fisheries and threats to biodiversity to a lack of policy attention. However, as this chapter will show, 'the coast' has been explicitly addressed in UK planning policy from the inter-war years of the twentieth century onwards (Table 3.1).

Early development of UK coastal policy

The framework of environmental protection policy incorporated into the British planning system in the 1930s and 1940s reflected ongoing public demands and controversies over the conservation of nature (MacEwen & MacEwen, 1982; Cullingworth, 1988). Among the most prominently debated issues were the public goods of recreation and access to the renewing properties (physical, spiritual and moral) of nature, encapsulated in conceptions of beauty (Sheail, 1975; Murdoch, 2006; Selman and Swanyck, 2010). The 1944 White Paper, *The Control of Land Use* (HM Government, 1944) asserted that public enjoyment of the sea and countryside was an important aspect of post-war reconstruction, in which the establishment of national parks and the protection of areas of outstanding natural beauty were to play a central role. A core assumption of this framework was the perception of agriculture as inherently compatible, and development as inherently conflictual, with environmental objectives (Curry, 1994). At the same time, the drafting and implementation of the *National Parks and Access to the Countryside Act 1949* revealed deep tensions concerning the scope of landscape designation, and the detailed objectives of conservation, management and regeneration, with the promotion of tourism and recreation perceived as directly conflicting with landscape preservation and wildlife protection.

1944	UK White Paper *The Control of Land Use* includes protection of sea and coast.
1950s	Coastal land included in National Park and AONB designations in England
1963	Department of Environment Circular *Coastline Preservation and Development*
1970	Countryside Commission publishes *The Planning of the Coastline* and *the Coastal Heritage*
1970s	Designation of Heritage Coasts in England Wales
1972	Department of Environment Circular *Planning of the Undeveloped Coast*
1974	Scottish Development Department publishes *North Sea Oil and Gas Coastal Planning Guidelines*
1992	Department of Environment *PPG 20: Coastal Planning*
1997	Scottish Office *Scottish National Planning Policy Guideline 13: Coastal Planning*
1998	Scottish Office *Planning Advice Note 53: Classifying the Coast for Planning Purposes.*
2008	DEFRA *ICZM Strategy for England*
2011	UK Marine Policy Statement commits UK administrations to managing the coastal area "in line with the principles of ICZM"
2012	DCLG *National Planning Policy Framework* requires "integration of the terrestrial and marine planning regimes"

Table 3.1 Coastal planning policy in England and Scotland 1944-2012

By the end of the 1950s, however, ten national parks had been designated, one of which (the Pembrokeshire Coast) was specifically coastal, while five coastal Areas of Outstanding Natural Beauty, including the Northumberland Coast AONB, had also been confirmed. While the process of AONB designation rolled out through the 1960s and '70s (including the Solway Coast in 1964), the Department of the Environment's Circular 56/63 on *Coastline Preservation and Development* argued that enhanced study and measures for coastal planning

were still needed, due to the sensitivity and pressures for development in coastal areas (Cullingworth, 1988). The Ministry of Housing and Local Government was to subsequently initiate a large-scale study of the planning of the coast by the National Parks Commission, which convened a series of regional conferences, leading to three survey reports (Countryside Commission, 1968, 1969, 1970a) and two sets of policy recommendations *The Planning of the Coastline* and *The Coastal Heritage* (Countryside Commission 1970b and 1970c).

The main objectives of Heritage Coasts:

- To conserve, protect and enhance the natural beauty of the coasts, including their terrestrial, littoral and marine flora and fauna, and their heritage features of architectural, historical and archaeological interest;

- To facilitate and enhance their enjoyment, understanding and appreciation by the public by improving and extending opportunities for recreational, educational, sporting and tourist activities that draw on, and are consistent with the conservation of their natural beauty and the protection of their heritage features;

- To maintain, and improve where necessary, the environmental health of inshore waters affecting heritage coasts and their beaches through appropriate works and management measures; and

- To take account of the needs of agriculture, forestry and fishing, and of the economic and social needs of the small communities on these coasts, through promoting sustainable forms of social and economic development, which in themselves conserve and enhance natural beauty and heritage features.

Box 3.1 Objectives of Heritage Coast designation

Source: DoE 1992a, p.7

Among their recommendations were the setting up of coastal regional parks, a review of military land holdings on the coast, planning policy for oil and gas exploitation and the identification of "maritime industrial development areas" which would help "to curb current public feeling that too little preliminary thought is given by the Government to major

planning proposals affecting the coast" (Countryside Commission 1970b, p.7).

The proposed planning designation of Heritage Coasts by local authorities, in consultation with the Countryside Commission, was endorsed by the government (Countryside Commission, 1970c) and supported by specific advice on the planning of the undeveloped coast set out in DoE Circular 12/72 (Cullingworth, 1988). The objectives for these non-statutory designations focused on combining a wide range of complex uses with the conservation of the coastal heritage (Box 3.1). Despite increased national and local protective designation, however, there remained ongoing concerns about effective mechanisms to respond to development pressures on the coast and the risks of erosion and flooding. Intriguingly, there were also concerns that "the coastal zone also includes areas of the best and most versatile agricultural land which need to be recognised in reaching decisions on development". (DoE, 1992a, p.9)

The development of coastal policy in relation to land use planning in Scotland appears to have followed a very different trajectory from that of England from the outset. According to Sheail (1975), the Scottish Home Department criticized the influential Dower report on national parks for adopting a conservative approach to the countryside (Dower, 1945). It noted that Dower deplored the impact of dams, pylons and pipelines on rural areas, and could therefore be expected to condemn such ventures as the new hydro-electric power schemes in the Highlands. In response to these concerns and a conviction that the issues for amenity were both less urgent and more complicated in Scotland than elsewhere in the British Isles, Scotland was excluded from the 1949 Act, and neither parks nor a Scottish equivalent of the National Parks Commission were established.

However, the pressures for development on the Scottish coast in the late 1960s and early 70s were to prove unprecedented in the face of the rapid expansion of oil and gas exploration and drilling in the North Sea. As documented by Lyddon (1983), some 70 applications for major oil-related developments were notified to the Secretary of State for Scotland between 1970 and 1975. The Scottish Development Department published the *North Sea Oil and Gas Coastal Planning Guidelines* in 1974. These were based on a "coastal resource evaluation" that distinguished, at a national scale, between "Preferred Conservation Zones" and "Preferred Development Zones".

Integrated Coastal Zone Management

The early stages of the development of Integrated Coastal Zone Management (ICZM) as an alternative practice in international and national environmental governance is encapsulated in the adoption of a comprehensive Coastal Zone Management Act by the USA, in 1972 (Sorensen, 1993, Beatley et al, 2002, Pew Oceans Commission, 2003; U.S. Commission on Ocean Policy, 2004). As Burroughs (2015) notes, this drew on the US regional tradition established and developed by the Tennessee Valley Regional Authority, with its emphasis on an integrated approach to economic regeneration, infrastructure planning and resource management. It was in the context of this innovation in environmental policy that, in 1973, the Council of Europe Committee of Ministers, in its *Resolution on the Protection of Coastal Areas* expressed concern that:

> "a considerable part of Europe's coasts is in a critical condition owing to the extremely serious biological degradation and aesthetic disfigurement caused by the indiscriminate siting of buildings, industry and tourist facilities in coastal areas".

The resolution recommended enhanced survey of coastal resources (an activity in which the UK was already well-advanced in relative terms), enhanced coordination of multiple uses, strengthening of environmental regulation and the creation of nature reserves and protected areas. This instigated the development of the *European Coastal Charter*, which further highlighted policy integration and was eventually endorsed by the European Parliament in 1982 (Ledoux et al, 2006).

Sorensen (1993) catalogues the international proliferation of integrated coastal zone management (ICZM) efforts during the 1970s and 1980s, in which the movement to professionalise a practice and discipline of ICZM was increasingly promoted through academic, international aid and government networks, characterised by "a systems perspective and multi-sectoral approach" that served "to distinguish ICZM from other types of environmental planning and management programs which occur in coastal areas" (ibid, p.50).

In 1992, a discourse based on the coast as a special case was given further traction within *Agenda 21*, the framework for implementing sustainable development agreed at the United Nations Conference on Environment and Development in Rio de Janeiro (UNESA, 1992, Brown et al, 2002; Zafrin et al, 2014). Chapter 17 of Agenda 21 is specifically aimed at 'coastal states', requiring them to commit to a set of shared objectives (Box 3.2). Chapter 17

was designed to directly support the emerging provisions of the United Nations Convention on the Law of the Sea. (UNCLOS) (UN, 1982). In this context, management of seas and coasts was envisaged as "integrated in content and precautionary in ambit" (Cicin-Sain, 1993, p.11). Core to Agenda 21 was the concept of sustainable development, as defined by the Brundtland Commission in its report *Our Common Future* (World Commission on Environment and Development, 1987) and the requirement for "integrated" decision-making or policy processes (ibid, p.17).

- "Provide for an integrated policy and decision-making process, including all involved sectors, to promote compatibility and a balance of uses;

- Identify existing and projected uses of coastal areas and their interactions;

- Concentrate on well-defined issues concerning coastal management;

- Apply preventive and precautionary approaches in project planning and implementation, including prior assessment and systematic observation of the impacts of major projects;

- Promote the development and application of methods, such as national resource and environmental accounting, that reflect changes in value resulting from use of coastal and marine areas, including pollution, marine erosion, loss of resources and habitat destruction;

- Provide access, as far as possible, for concerned individuals, groups and organizations to relevant information and opportunities for consultation and participation in planning and decision-making at appropriate levels."

Box 3.2 Agenda 21 objectives for coastal and marine areas
Source UNESA (1992), para.17.5

The combined influence of UNCLOS and Agenda 21 processes and agreements further shaped the development of both European and UK policy for the coast. Chapter 17 urged coastal states to "consider establishing, or where necessary strengthening, appropriate co-ordinating mechanisms (such as a high-level policy planning body) for integrated management and sustainable development of coastal and marine areas and their resources, at both the local and national levels" (para. 17.6)

Inputs	*Processing of Inputs*	*Consistency of Outputs*
COMPREHENSIVENESS	AGGREGATION	CONSISTENCY
Over time – long-range perspective	Extent to which policy alternatives are evaluated from an overall perspective rather than from the perspective of each actor, sector, etc., i.e. basing decisions on aggregate evaluation of policy	Consistent policy = different components accord with each other.
Space – extent of geographic area for which consequences of policy are recognised as relevant.		*Vertical dimension* – consistency among policy levels; specific implementation measures conform to more general guidelines and to policy goals.
Actors – relevant interests incorporated		*Horizontal dimension* – for any given issue and policy level, only one policy is being pursued at a time by all executive agencies involved.
Issues – interconnected issues incorporated		

Table 3.2 Dimensions of policy integration for ICZM
Source: Cicin-Sain (1993) p.24

As Cicin-Sain (1993) argues, both the definition and the practice of integrated management, and integration in policy were stressed. Table 3.2 sets out the dimensions of policy integration that were envisaged as critical: the comprehensiveness and aggregation of knowledge inputs and the overall consistency of policy. However, Kay and Alder (2005, p.78) note that governments have interpreted 'integrated' in a variety of ways and have tended to adopt it or avoid its use in relation to CZM according to wider policy and institutional factors, such as the issue of distinction between different levels of government. They highlight a pragmatic definition of the purpose of integrated management as being to "allow multi-sectoral development to progress with the least unintended setbacks" (ibid, p.80).

In 1992, the UK House of Commons Select Committee on Coastal Zone Protection and Planning concluded that:

> "The division between the planning control system at sea and on land may be regarded as forming the root of many of the problems with current coastal protection and planning policies… Harmonising the planning systems of below and above the low water mark seems to us to be the basic requisite for an integrated approach to planning in the coastal zone." (House of Commons Environment Select Committee, 1992, p.30)

However, the Government rejected the Committee's recommendations for a statutory framework for ICZM (DoE, 1992b; Fletcher et al 2014) and later that year it published *PPG 20, Coastal Planning* (DoE 1992a). PPG 20 opened by stressing the importance of the coast as a national resource of "special value" for a range of sectors, activities and heritage interests (DoE, 1992a, p.1). According to Taussik (1996) it was the first national development policy to promote coast as a strategic development issue in England and to provide specific guidance for development. However, it delegated definition of "the coastal zone", based on local circumstances, to local planning authorities, advising that relevant issues would include:

> "off-shore and near-shore natural processes, such as areas of potential tidal flooding and erosion; enclosed tidal waters, such as estuaries and surrounding areas of land; and areas which are directly visible from the coast. The inland limit of the zone will depend on the extent of direct maritime influences and coast-related activities." (DoE 1992a, p.5)

At the same time, PPG20 set out a spatial typology for the zone, comprising:

1. the undeveloped coast, conserved both for its landscape value and for its nature conservation interest;
2. other areas of undeveloped or partly developed coast;

3. the developed coast, usually urbanised but also containing other major developments (e.g. ports, power stations, etc.); and

4. the despoiled coast, damaged by dereliction caused by mining, waste tipping and former industrial uses.

In her review of implementation of the guidance, Taussik (1996, p.412) observes that "the extent of planning control seawards acts to limit, not only the area of planning control but, also, the perception of planners/planning authorities of what constitutes 'the coast'", resulting in what she later describes (Taussik, 1997, p.12) as "a land by the sea interpretation". The guidance also urged "coastal authorities" to work closely together to resolve coastal issues within the context of "estuary or coastal management plans" (DoE 1992a, p.23). This approach was further reflected in *PPG 12, Development Plans and Regional Planning Guidance* (Department of the Environment, 1992c). Subsequently, this was to be developed in regional guidance such as that for the South East, which included a section on 'Estuaries, the Coast and Marine Environment' and the guidance for the North West, which included particular reference to, and policies for the coast (North West Regional Association, 1994; Taussik, 1996).

In March 1996, the discussion paper *Scotland's Coasts* set out the government's intentions to update the 1974 and 1981 National Planning Guidelines (Scottish Office, 1996). It cited its drivers as the need to address the range and diversity of issues on the coast, such as the rapid expansion of marine aquaculture and coastal tourism, and the interest in large-scale coastal quarrying. It also proposed to deal with coastal dereliction following the decline of industries such as shipbuilding and coal mining, and demilitarization (Scottish Office, 1996). At the same time, in the context of European environmental directives (EC, 1979 and 1992), it noted the requirement to acknowledge nature conservation interests for the developed as well as the undeveloped coastline. As set out in Box 3.3, *Scottish National Planning Policy Guideline 13 Coastal Planning,* (Scottish Office, 1997) distinguished between the "developed", "undeveloped" and "isolated" coast. Again, it was for local authorities to determine, in consultation with other bodies such as SNH and the Scottish Environmental Protection Agency (SEPA), which of the above three forms of coast they covered, drawing on further advice in *Planning Advice Note 53: Classifying the Coast for Planning Purposes* (Scottish Office, 1998).

The developed coast

This includes towns and cities, industrial and energy developments as well as recreational uses such as golf courses. The developed coast should be the focus for new developments which require a coastal location. Nevertheless, such developments should avoid the use of greenfield sites and must contribute towards renewal or regeneration of an area. In all circumstances the visual impact of the development is an important consideration.

The undeveloped coast.

Over 88% of Scotland's coastline falls within this category which, as the NPPG points out, is largely devoid of development, although along its length, however, can be found smaller towns and villages, including dispersed settlements which are characteristic of many parts of the Highlands and Islands" (para. 22). Provision is made in the NPPG for limited development, including affordable housing, community facilities and workshops as well as tourism-, leisure- and recreation-related developments. Such developments will be likely to be 'modest' in nature, although the cumulative effect of small-scale developments can be as damaging as that of larger ones. In any event, proposals will only be permitted where:

- o the proposal can be expected to yield social and economic benefits sufficient to outweigh any potentially detrimental impact on the coastal environment;
- o there are no feasible alternative sites within existing settlements or on other previously developed land.

The isolated coast.

Such areas are likely to be limited in number and extent and consequently their special characteristics need to be safeguarded. In these areas there will be a presumption against development.

Box 3.3 Categorisation of Scottish Coast in NPPG 13 Coastal Planning.

Source: Scottish Office (1997)

It was in this context that ICZM was to progress as a non-statutory activity in the UK, with its main focus subsumed within the framework of terrestrial spatial planning (DEFRA 2007, Stojanovic and Ballinger, 2009). Local authorities took a lead in developing coastal strategies, often around the management of Heritage Coasts. In 1993, English Nature had launched its *Estuaries Initiative*, enabling the employment of estuary management officers to set up local forums or partnerships and coordinate the production of integrated estuary management plans (Edwards et al, 1997; Roe, 2000; Stojanovic and Barker, 2008). Scottish Natural Heritage launched its *Focus on Firths* programme in 1994, with the objective of developing integrated management plans. The Scottish Coastal Forum was established in 1996 to act as an independent body to advise government on various aspects of coastal management and to encourage the formation of local coastal fora. It presented an advisory coastal strategy to the Scottish Executive in 2004 (Scottish Coastal Forum, 2004; Stead and McGlashan 2006).

In 2002, the European Commission published its *Recommendation on the Implementation of ICZM*, which provided Member States with the first formal guidance for reviewing coastal governance and delivering national ICZM frameworks (EC, 2002). *Safeguarding Our Seas,* published by DEFRA in 2002, acknowledged the growing recognition of the interconnections between policy for the coast and both inland water catchment and open sea. Its subsequent *Strategy for Promoting an Integrated Approach to the Management of Coastal Areas in England*, published in 2008, endorsed the framework of partnership working that had developed since the 1990s (DEFRA, 2006a, 2006b, 2007, 2008). However, these attempts at integration experienced notable "administrative and institutional inertia", while ICZM remained "a rather elusive concept" (Smith et al, 2011, pp.297 and 302). This was compounded by uncertainties surrounding the negotiation and introduction of new regulation and legislation to meet the requirements of EC Directives and new national marine policy (French, 2004, O'Hagan and Ballinger, 2009, Shipman and Stojanovic, 2007; Stephen and Jonathan, 2008, O'Riordan, 2008). As Fletcher (2014) notes, the ICZM approach faced the emergence of marine planning as a powerful competing priority. Indeed, the results of DEFRA's 2006 consultation *Promoting an integrated approach to management of the coastal zone (ICZM) in England* were fed directly into the development of proposals in the Marine and Coastal Access Bill.

"Sustainably managed coastal areas, where competing demands and pressures have been taken into account and the social and economic needs of society have been reconciled with the need for conservation of the natural and historic environment.

A clear policy and regulatory framework into which the principles of a holistic and co-ordinated approach are embedded.

A new, strategic management approach in the marine environment, which is effectively integrated with the management of the land.

More consistent application of the principles of good, holistic and co-ordinated management around the coast.

A management approach that builds on existing structures and responsibilities, whilst encouraging organisations to work better together.

A flexible management approach, which supports local initiatives and solutions to address local circumstances, within an overall regulatory framework.

Appropriate and effective stakeholder and local community involvement throughout management processes."

Box 3.4   A Vision for ICZM in England
Source: DEFRA (2008, p.7)

Box 3.4 summarises the "vision" set out in the ICZM Strategy for England (DEFRA, 2008). It stresses the social and economic, as well as the environmental aspects of sustainability, and the overall aim of integrating land and marine management based on "existing structures and responsibilities" (p.7). Figure 3.1 indicates the focal role envisaged for Marine Plans, that was to be enabled by the forthcoming Marine and Coastal Access Act, in ensuring "integration" between land use and marine policy in the coastal zone.
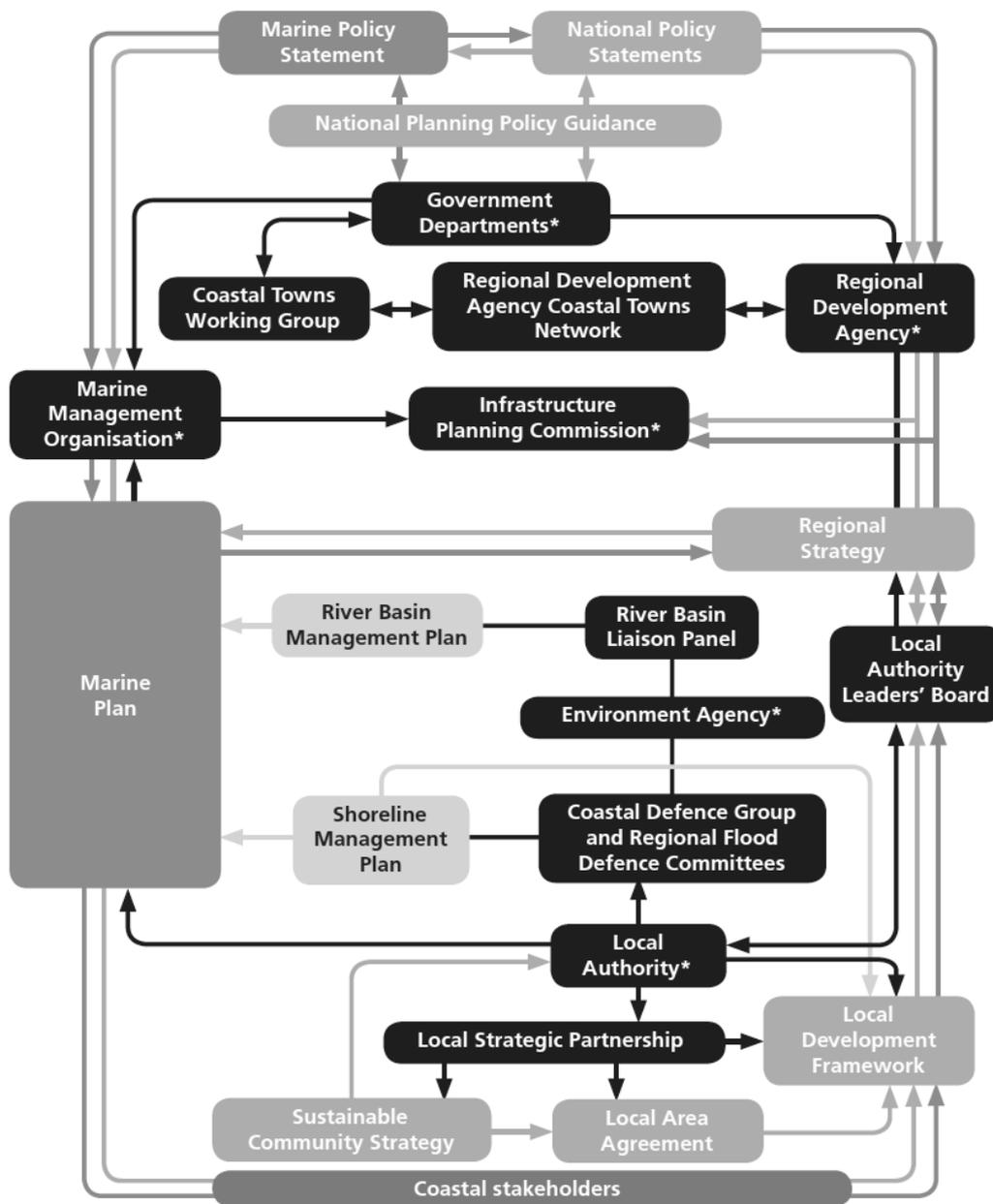
Figure 3.1 English ICZM Strategy 2008: envisaged policy relationships
Source: DEFRA 2008, p.26

The Marine Plan was expected to be "as compatible as possible" with the local plan or development framework, with the main level of integration occurring at the regional interface between the Marine Plan and the Regional Strategy. This strategic coordination mechanism was to be soon erased however as the coalition government elected in 2010 quickly moved to dismantle the regional development agencies and abolish regional strategies (Magowan, 2011).

Marine Spatial Planning and the Seaward Shift

The UN Convention on the Law of the Seas (UN, 1982) only fully entered into force in 1994, enacting statutory limits and terms for 'territorial' waters. In this context, annexation of the marine "commons" by state control is a very recent historical phenomenon, alongside which marine spatial planning has emerged as "both a credible and a necessary function of a coastal state" (Jay, 2010 p.178). In 2006, the EC adopted a *Green Paper on a Future Maritime Policy for the EU* (EC 2006). It championed the role of maritime spatial planning for "a dynamic maritime economy… in harmony with the marine environment". Two years later, the Commission adopted the *Roadmap for Maritime Spatial Planning* (EC, 2008a). The *Communication on Maritime Spatial Planning in the EU—Achievements and Future Development* (EC, 2010) states a definition of marine spatial planning (MSP) as "a process of spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives" (para.1.1). While the Commission emphasized that the implementation of this process was the responsibility of Member States, it proposed to act as a facilitator for the development of a common approach (Drankier, 2012). While recognition of the extent of the coast as part of the marine remains problematic, coastal policy considerations have become increasingly subsumed into this marine policy arena (Jay, 2010; Flannery & O´Cinnéide, 2012a, Hull 2013)

The *Marine Strategy Framework Directive* (MSFD) was agreed in 2008 as "the environmental pillar of the Integrated Maritime Policy for the European Union" (EC 2008b). It required Member States to develop marine strategies for each of their marine regions, following a prescribed process of assessment of the current environmental status of the waters concerned, the environmental impact of human activities and the desired state of the marine environment. These assessments are intended to inform a series of environmental targets and associated indicators, with a programme of measures to achieve or maintain the "good environmental state" of the waters involved, taking into account relevant socio-economic considerations. The first target date for progress is 2020. The MSFD aims to contribute to coherence between, and the integration of environmental concerns into, the different policies, agreements and legislative measures which have an impact on the marine environment. It refers to a number of key preceding Directives, especially the Habitats and Wild Birds Directives and the Water Framework Directive (EC, 1979, 1992, 2000a, 2009). In addition, the Environmental Impact Assessment (EIA) Directive specifies coastal zones as sensitive areas that need to be taken into account in determining whether projects must undergo EIA (EC, 2011).

Governance Scale	Governance Tools		
International	Agreements/ obligations	United Nations Convention on the Law of the Sea IMO maritime safety and prevention of pollution OSPAR Convention on NE Atlantic water quality/priority habitats Conventions on Biological Diversity/Conservation of Salmon in NE Atlantic	
EU	Legislation	Marine Strategy Framework Directive 2008 EU Directives: habitats; birds; shellfish; environmental impact; strategic environmental assessment; water framework; flood risk etc. Common Fisheries Policy Regulations Regulation on Alien Species	
National		**England**	**Scotland**
	Legislation	Planning Act 2008 UK Marine and Coastal Access Act 2009	Planning etc. (Scotland) Act 2006 Marine (Scotland) Act 2010
	Marine plan authorities	Marine Management Organisation (MMO) working with the 10 inshore fisheries conservation authorities	Marine Scotland working with 12 inshore fisheries groups
	Marine Plan	UK Marine Policy Statement 2011	National Marine Plan for Scotland (in accordance with MPS 2011)
Regions	Regional marine planning	MMO responsible for preparing 11 regional marine plans	Regional Marine Planning Partnerships to oversee the production of regional marine plans for 11 regions

Table 3.3 Overview of marine governance tools in England and Scotland

Adapted from Hull, 2013, pp. 508-

According to Qui and Jones (2013, p.186) the MSFD and Integrated Maritime Policy (IMP) "prescribe two different approaches to MSP in Europe", with the MSFD providing an ecosystem-based approach for environmental protection, while the IMP envisages MSP as being primarily an instrument for cross-sectoral management and providing predictability for future investments. In this context, offshore wind energy appears to have been a major driver for MSP (Drankier, 2012, Mee et al, 2015). A formal evaluation of the European ICZM Recommendation in 2009 concluded "the substance of the Recommendation, its approach and principles, remained valid" but that "the European Union policy context has significantly changed" (quoted in Fletcher 2014, p.264).

As Smith et al (2012) point out, the new marine spatial planning system in the UK

> "sits within a nested legal system containing four main components organized primarily along use sector lines, namely, the Law of the Sea, European maritime and environmental law, UK national legislation and devolved administrations' legislation for Scotland, Northern Ireland and Wales."(p.44).

Table 3.3 summarises this nested system in England and Scotland. The Marine and Coastal Access Act 2009 and the Marine (Scotland) Act 2010 were both designed to implement the requirements of the European Marine Strategy Framework Directive, with an overarching UK Marine Policy Statement (MPS) (HM Government, 2011a) having statutory weight across all the devolved jurisdictions. This commits the UK government administrations 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 ICZM" (p.9). However as Smith et al (2012) note, offshore oil and gas and military uses are specifically excluded, while the Crown Estate continues to license offshore aggregate extraction and marine renewable developments. Fisheries are governed by fisheries legislation, under the umbrella of the European Union's Common Fisheries Policy.

The Marine Management Organisation was set up under the *Marine and Coastal Access Act*. Its powers are set out in the Act and the MPS, including the fulfilment of delegated powers as marine plan authority for England. Boyes and Elliot (2015) detail the challenges raised for integration by the number of institutional actors responsible for strategic decision-making in the marine environment, including the Major Infrastructure Planning Unit within the Planning Inspectorate, the Department of Energy and Climate Change, the Department for Transport,
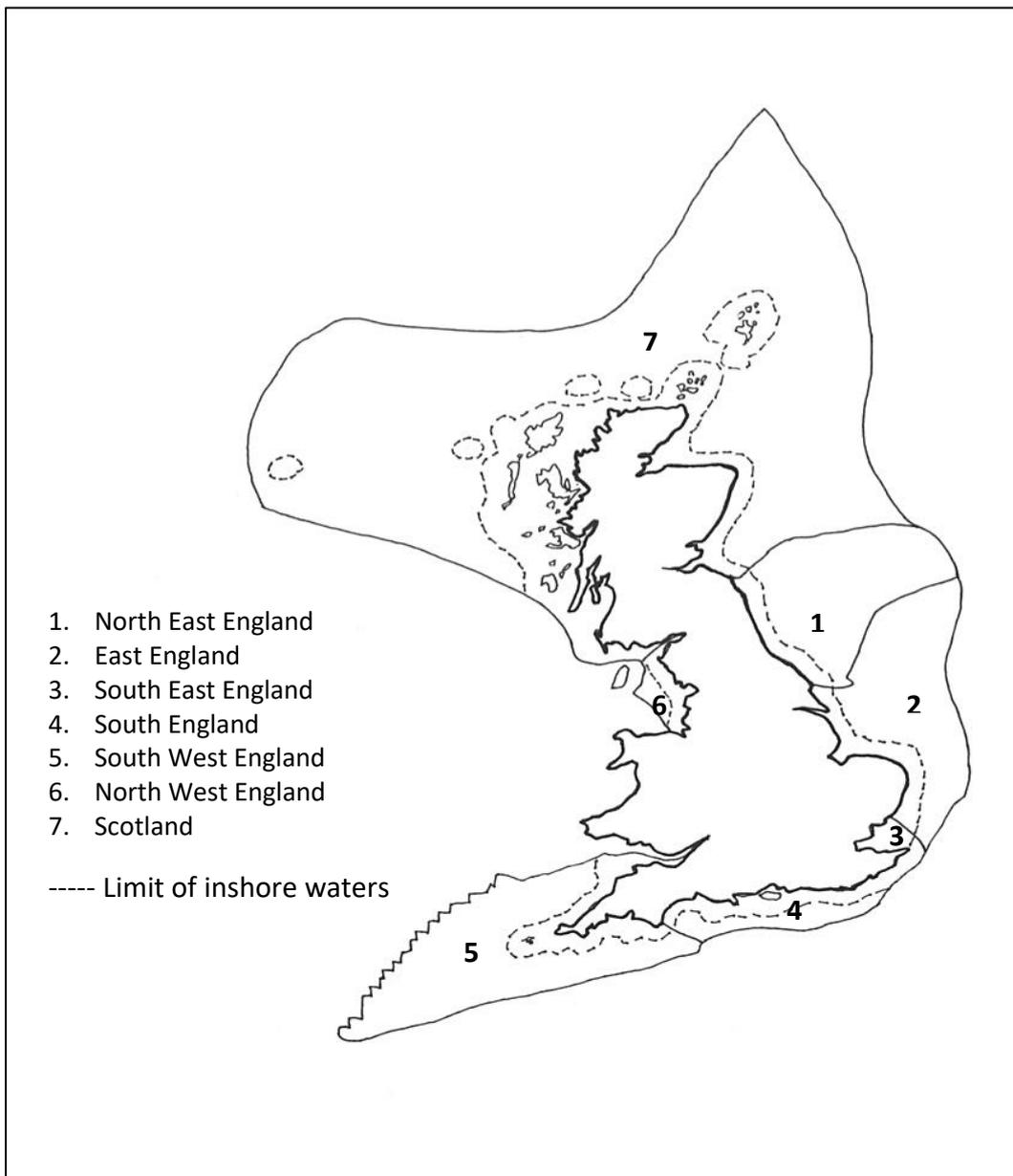
Figure 3.2 Marine Planning Areas for England and Scotland

English Heritage, Natural England and the Environment Agency. It is in this crowded institutional context that the new marine planning system is envisaged as interacting with town and country planning and other legislation, guidance and development plans, including consents for nationally significant infrastructure projects, such as the larger offshore renewable energy and port developments, dealt with under the *Planning Act 2008*. The *Marine (Scotland) Act 2010* similarly provides for a new comprehensive marine planning and licensing system for Scotland's inshore waters, administered by Marine Scotland, set up in 2009 as an arm of the Scottish Government. The marine acts require the preparation of marine spatial plans (Figure 3.2). The first marine plan has been prepared for the East of England

(HM Government , 2014), while a second is being prepared for the South England marine plan area. The first Scottish National Marine Plan was adopted in March 2015 (Scottish Government, 2015a) and sets out draft boundaries for eleven "marine regions".

As the marine plan area boundaries extend up to the level of mean high water spring tides while terrestrial planning boundaries generally extend to mean low water spring tides, existing and proposed marine plan areas physically overlap with those of terrestrial plans. According to the MPS (p. 9), integration of marine and terrestrial planning will be achieved through consistency between policy document, liaison between the responsible authorities and sharing of data. In addition, under the overall objective of promoting good governance, it specifically refers to a requirement that:

> "Marine, land and water management mechanisms are responsive and work effectively together for example through integrated coastal zone management and river basin management plans" (p.11).

In this context, the MPS highlights a comprehensive range of factors to be considered by marine plan authorities across the UK, including regeneration and economic development, air and water quality, noise, biodiversity, seascape, cultural heritage, flooding, erosion and dredging, marine aggregates, port and harbour development, shipping and the safeguarding of defence interests. The marine environment is envisaged as making an increasing contribution to the UK's energy supply and distribution, with offshore wind providing the single largest renewable electricity contribution by 2020 and beyond, while wave and tidal stream energy are also expected to have growing impact in the medium to long term. In this context, marine plan authorities are required to liaise with terrestrial planning authorities to ensure the development of infrastructure and other developments to secure sustainable economic growth and local jobs. At the same time the MPS explicitly states objectives of equality, community cohesion, wellbeing and health. The integration of marine plans with terrestrial planning and engagement with local communities is thus expected to encourage the development of "vibrant coastal communities, particularly in remote areas, which will include consideration of cultural heritage, seascape and local environmental quality" (ibid, p.16).

However, as Hull (2013) observes, marine spatial planning in the UK has so far been largely "a high-level process discussing broad-brush issues and providing strategic guidance for the marine regions" and "fishermen and coastal partnerships have felt bypassed by the consultation exercises" (pp.520-521). Rodwell et al (2013) also highlight the need for "better

engagement with fisheries and coastal communities" (p.254). The first marine plan for England, covering the East of England Inshore and Offshore areas, has been described as "merely signposts to existing policies" that give "an oversimplified snapshot of activity with no real vision for the future sustainable use of our seas" (Edwards, 2014). Certainly the identification and signposting of data has been an important element of the early stages of marine spatial planning, not least because, as Boyes and Elliott (2015, p.64) note, "data are still collected sectorally and there is not a 'one-stop-shop' to obtain data on the marine environment". It is still unclear how the engagement of the marine planning authorities in the agenda set out in the Marine Policy Statement will interact with overall development strategies. However, it has already fundamentally changed the focus of national planning frameworks as discussed in the next section.

National Planning Policy Frameworks

The replacement of PPG 20 and PPG 12, along with most other planning policy guidance at the national level by the *National Planning Policy Framework* (NPPF) (DCLG, 2012), represented the first major opportunity in England for national land use planning policy to acknowledge the new marine spatial planning legislation. Paragraph 105 states:

> "In coastal areas, local planning authorities should take account of the UK Marine Policy Statement and marine plans and apply Integrated Coastal Zone Management across local authority and land/sea boundaries, ensuring integration of the terrestrial and marine planning regimes." (p.25)

What are 'coastal areas' and 'integrated coastal zone management' in this context and how should terrestrial and marine planning be integrated? In fact, the emphasis of the NPPF appears to be on shoreline management. Paragraph 17 signals 'coast' among the core environmental issues for development, requiring the planning system to take "full account of flood risk and coastal change". Coastal change, defined as physical change to the shoreline through erosion, coastal landslip, permanent inundation or coastal accretion, is represented as an inherent aspect of climate change, with a focus on the loss of land and infrastructure. In this context "coastal processes" are characterised by their "long term nature and inherent uncertainty" (para 168). Coastal change management is highlighted as a "strategic priority" for local plans, based on evidence set within 'Shoreline Management Plans' (ibid, para 156 and 168). This supports the emphasis on technical risk assessment developed in planning policy PPS 25 Development and Flood Risk (DCLG, 2010).

At the same time, the NPPF not only accords specific status to a coastal walking route, as set out in the Marine and Coastal Access Act, but also to designated Heritage Coast. This confirms the status of the latter in regulatory terms as "areas of undeveloped coastline which are managed to conserve natural beauty and, where appropriate, to improve accessibility for visitors" (DCLG 2012, p.51) In fact the NPPF goes beyond this requirement to state that local planning authorities should

> "maintain the character of the undeveloped coast, protecting and enhancing its distinctive landscapes, particularly in areas defined as Heritage Coast, and improve public access to and enjoyment of the coast." (p.26)

The NPPF thus confines definition of the coast to a discourse of technically driven risk management, on the one hand, and on the other hand accords it the status of a complex public good, comparable to that of a national park, which must, however, straddle two distinct spatial planning and management regimes. Urban, developed or "despoiled" areas are essentially excluded from this coastal planning discourse, except in terms of shoreline management planning.

The consolidation of the Scottish Government's coastal policy in *Scottish Planning Policy* (2010) revealed a significant shift towards identifying "the sustainable development of coastal areas" as "an important contributor to sustainable economic growth". The coastal typology became:

- "areas likely to be suitable for development",
- "areas subject to significant constraints" and
- "areas which are considered unsuitable for development such as the isolated coast".

The isolated coast was envisaged as "distant from centres of population and lacks obvious signs of development and is of very significant environmental, cultural and economic value" (para.102). The coast was also recognized as a key part of planning policy for climate change, with new defences being required to be part of "long term settlement strategy" (para 98). *Scottish Planning Policy* describes the purpose of the new marine planning system as being "to provide a framework for the sustainable development of the Scottish marine area" (para 99). In this context, development plans were required to:

> "protect the coastal environment, indicate priority locations for enhancement and regeneration, identify areas at risk from coastal erosion and flooding, and promote public access to and along the coast wherever possible." (para 103)

Development plans were also expected to identify areas where managed realignment of the coast may be appropriate, setting out potential benefits such as habitat creation and new recreation opportunities. Planning authorities were enjoined "to take the likely effect of proposed development on the marine environment into account when preparing development plans and making decisions on planning applications" (ibid). They were expected to recognize that Integrated Coastal Zone Management (ICZM) "may be of use in addressing the areas and issues in which regional marine plans and development plans have a common interest", while the landward limit of the coastal zone "will vary based on the geographical effects of coastal processes and coastal-related human activity"(para.99). In this context, the Scottish Government's pilot Sustainable Marine Environment Initiative (SSMEI) resulted in the adoption of a Shetland Islands' Marine Spatial Plan being adopted as supplementary guidance to the statutory local plan for Shetland (Shucksmith et al, 2014). Further guidance on the relationship between the statutory land use planning system and marine planning and licensing was published in *Scottish Planning Policy* 2014 and Circular 1/2015 (Scottish Government 2015b).

The Ecosystem Approach

The transposition of the European Habitats Directive (EC 1992), the European Water Framework Directive (EC 2000) and the European Floods Directive (EC, 2007), into English and Scottish environmental regulations and legislation, have transformed the environmental context of development plan-making by setting up parallel cycles of strategic plan preparation and environmental reporting in both England and Scotland. In this way, the 'ecosystem approach' to environmental planning has increasingly been incorporated into UK policy frameworks (Douvere and Ehler 2009).

The Water Framework Directive (WFD) defined biological, chemical and hydro-morphological quality and set a target of "good ecological status" by 2015 for both freshwater and coastal waters. It required the first tranche of river basin management plans to be in place by 2009, setting out programmes of measures to be undertaken by local and national government, water companies and other organisations. The network of Natura 2000 sites, protected under the Habitats Directive, and all other areas requiring special protection by specific Community legislation, such as Bathing Waters, have to be integrated into the relevant river basin management plans. The Floods Directive required the publication of preliminary flood risk assessments, hazard and risk maps by the end of 2013 and flood risk

management plans by December 2015. Under the terms of the Flood and Water Management Act 2010, work to tackle coastal erosion (and also the risk of sea flooding) is carried out by district or unitary councils in collaboration with the Environment Agency in England and Wales. In Scotland it was transposed in the Flood Risk Management (Scotland) Act 2009, with SEPA being the competent authority.

The UK Government White Paper *The Natural Choice* (HM Government, 2011b) highlighted the role of a "properly functioning natural environment" in sustained economic growth. It notes that the National Ecosystem Assessment estimates the value of coastal wetlands at £1.5billion annually in terms of the role they play in buffering the effects of storms and in controlling flooding. In this context "investing in the creation of new coastal wetland, such as through managed realignment schemes, can be a cost-effective alternative to 'hard' engineering flood defences, as well as providing wider ecosystem services" (p12). The White Paper states

> "Through the Marine and Coastal Access Act 2009, our seas have become a global exemplar of marine conservation. We are leading the world in developing a marine planning system and in *encouraging socioeconomic activities such as fishing to be seen as part of the solution to the environmental challenges that our seas face*." (p.32, italics added)

In addition the marine nature conservation provisions of the Marine and Coastal Access Act were estimated to provide "between £749million and £1.6 billion of annual environmental benefits" (p.33).

Discussion

In reviewing constructions of the coastal environment in UK development planning, we can see that, as Peel and Lloyd (2004, p.371) point out, it has been based on perceptions of a 'bi-polar relationship' between terrestrial and marine environments. The characteristics of the land environment, such as "comprehensive land ownership, the parcelling of land by accurate and visible boundaries, and the possibility of construction and settlement" are contrasted with the sea as "a space beyond social norms…incapable of being tamed by the forces of modernity…the antithesis of modern developable land space" (Jay 2010, p.172). This strongly reflects the human-nature dualism identified by Williams (1975) as a key metadiscourse of western capitalism.

Period	Key Features
1950-1970	Sectoral approach Man-against-nature ethos Public participation low Limited ecological considerations Reactive focus
1970-1990	Increase in environmental assessment Greater integration and coordination between sectors Increased public participation Heightened ecological awareness Maintenance of engineering dominance Combined proactive and reactive focus
1990-2000	Focus on sustainable development Increased focus on comprehensive environmental management Environmental restoration Emphasis on public participation
2000-2010	Focus on tangible implementation of sustainable development principles Ecosystem-based management becoming embedded in national legislation Shared governance emerging Exploration of new coastal management approaches, including learning networks and adaptive management systems Increased impact of globalization and the Internet on management approaches and impacts Emerging re-analysis of the basic tenets of coastal management
Post 2010	Integrated suite of theories and tools applicable with confidence over all scales, timeframes, locations and issues Comprehensive ecosystem-based management Connected coastal management communities of practice Verified set of governance models

Table 3.4 Phases in the development of coastal management practice

Source: Kay and Alder, 2005, p. 13

Coast in this context assumes the character of 'natural' space that must be preserved. At the same time, in the context of this land-sea binary, the coast is also, as Steinberg (2013) argues "an abstract space without dimension" (p.163). As this land-sea interface has so often been the location of intense human activity, this 'natural' identity has conflicted with the discourses of industrialism. We see the policy attempts to resolve these conflicts in the delineation of heritage/conservation and industrial development zones for the coastline. Alternatively, we also see the development of ICZM as an attempt to develop alternative responses to this conflict. Jay describes the historical role of 'the coastal management community' in developing proposals for more structures and binding systems of coastal zone management, using "the all-pervading language of integration….culminating in almost a comprehensive systems approach" (Jay, 2010, p.183). This ecosystem-based approach has two key drivers: scientific rationalism and a resource management emphasis on 'stakeholder' involvement.

Kay and Alder (2005) present the historical narrative of coastal policy in the UK as demonstrating development from reactive, sectoral approaches to the embedding of ecosystem-based management in national legislation (Table 3.4). In addition they argue that "post 2010", there will be "a verified set of governance models" based on "principles of sustainable development", "increasing emphasis on consensual styles of coastal planning and management", a "partnership approach" and horizontal and vertical integration between strategies, plans and programmes for coastal management and development (pp. 337-338). They also stress the contrast between the adaptive and collaborative approaches associated with emerging coastal planning practice and older "mechanistic" and "hierarchical" practices (Table 3.5). However, they argue that "there is general agreement that planning and management should use a hierarchy of direction-setting statements, following the traditional view of coastal planning and management as fundamentally a rational activity" (ibid, p.84). This reveals what Jay describes as "uncomfortable resonances of earlier, now largely discredited, theories of systems planning with underlying rationalist foundations" (2010, p186). In addition the identification of who qualifies to be 'the stakeholders' for such complex management issues is problematic and Jay cautions against the danger that marine spatial planning will be left "in the hands of a technical elite making reference only to a relatively confined body of 'stakeholders'" (ibid, p.187).

Old planning practices	New or emerging planning practices
Mechanistic	Organic/cybernetic
Imposed control	Self-organising/adaptive
Compartmentalises	Interdisciplinary/holistic
Reductionist models	Complex/probabalistic
Closed systems	Open systems
Means-end causality	(Sub) systems functions (multiple
Elimation of uncertainty	causation)
Planning creates order	Accept and learn form uncertainty
Hierarchical order	Order is there already – work with it
Ends given	Market type coordination
Avoid overlap	Semi-autonomous systems need to
Fixed course	overlap
	Goals developed within process
	Flexibility and learning
Exploitation of nature	
Programming the future	Participation with nature – sustainable
Consistent goals	use
	Flexible frameworks for a changing
	future
Neutral to politics	Subjective judgements required
Power for others	Consensus building
Institutional control	
	Planning is politics
Government monolithic	Power with others
	Self help with government
Rational, linear	
Entrenched agencies	Government of many departments,
Either pragmatic or visionary	perspectives, agencies
	Intuitive and rational
	Experimentation encouraged
	Pragmatic and visionary

Table 3.5 Changing planning practices in the coastal context

Source King (1996) in Kay and Alder, 2005, p75

Despite calls for a relational approach to space in planning, both terrestrial and marine planning continue to be largely interpreted as the allocation and management of areas for defined uses, reflecting the "Euclidean or engineering model of planning" (Jay, 2012, p.83; Friedmann, 1993; Davoudi and Strange, 2009). Thus, for instance, the urban-rural dichotomy is also used in marine/coastal contexts (Smith, 1991 and 1999, Flannery & O'Cinnéide, 2012a; Stojanovich and Farmer, 2013; Janssen et al, 2013). However, Jay (2012, pp.86-93) argues that marine planning, in particular, "holds the seeds of relational praxis in its socio-ecological framework", thus experiencing "space as constantly coming into being as an outworking of spatial practice carried out in response to others and based upon the knowledge available".

Coastal Identity/Function	Associations
Coastal communities	Community identity Built environment Local economy
Coast as public recreational amenity	Coast as 'seaside'
Coast as national economic resource	Economic gateway to marine resources/space
Degraded Coast	Dereliction of built environment, landscape despoliation and loss of habitat
Natural Coast	Undeveloped/Isolated Coast Coastal ecosystem
Defensive Coast	Coast as shoreline

Table 3.6 Identities, functions and associations of 'coast' in national policy frameworks (England and Scotland)

This has particular implications for the meaning of coastal space, where polarized notions of marine and terrestrial processes must be somehow integrated or otherwise transformed. Discourses associated with the coast in national development and environmental policies in the UK suggest deep tensions that largely have been framed within an urban-rural dichotomy that has been increasingly uneasily combined with ecosystem approaches, with a particular emphasis on an emerging set of discourses under the auspices of ICZM. Within this nexus, it is possible to discern a range of polarized development discourses as discussed in chapter 2. The research strategy in this study sets out to explore how these are mobilized in processes of local development policy-making and what this can mean for place-specific power relations.

The historical review of coastal discourses in national development policy reveals a range of contrasting identities and functions ascribed to coast, as summarised in Table 3.6. These point to a mechanistic sectoral zoning of 'coast' into economic, 'natural' and amenity areas, based on a dominant discourse of industrialism, as discussed in chapter 2. 'Shoreline' tends to be treated as a form of linear defensive infrastructure. The complex functioning of urban settlement and local communities across these zones is framed by an underlying urban-rural dichotomy (Box 2.5), which has been increasingly uneasily combined with ecosystem approaches emerging especially under the auspices of ICZM. It is in this context that this research sets out to investigate the spatial dimensions of coastal imaginaries in specific locations in relation to development dynamics. It explores how such imaginaries are mobilized in processes of local development policy-making and what this can mean for place-specific power relations. This includes questioning the extent to which discourses of human/nature unity, and related objectives of sustainability and equity, might be expressed in development policy.

Chapter 4. Research Questions and Methodology

Introduction

Chapter 2 developed a conceptual framework for exploring power in development and environmental governance. The framework identifies the discursive construction of spatial imaginaries as a key object of the analysis of power dynamics in development and environmental policy-making. Chapter 3 explored the discursive framings of coastal imaginaries in development policy in the UK. The construction and mobilisation of spatial imaginaries of 'coast', in relation to competing development discourses, is the object of analysis identified for further study. The research strategy (Figure 4.1) is based on a case study approach. It combines analysis of policy documents interviews and interviews with members of the related policy community, building on the approach of critical discourse analysis developed by Fairclough and others. At the same time, it proposes and reflects on an innovative conceptual framework that places the concept of the spatial imaginary as a key object of analysis in planning research. In doing so, the research sets out to generate a dialogue between the conceptual framework and the data.

The research strategy requires a methodological approach that uncovers the spatial imaginaries of coast within place-framing processes (specifically, local development policy-making) and can relate them to competing discourses of development. Critical discourse analysis, as applied in planning policy research by, for example, McCallum and Hopkins (2012), was identified as a relevant methodological approach because of its focus on both text analysis and discursive context in explicit relation to power dynamics. At the same time, the methodological approach developed in this study draws on the tools of Healey's socio-institutionalist approach, through its specific focus on both policy community and the role of spatial imaginaries in the place-framing processes of local development policy: in this case, particular sets of imaginaries of 'coast'.

As Howarth (2005) notes, case studies offer the proximity to the object of study (here, the spatial imaginary) and the opportunity to explore the conceptual framework in situ at the level of detail necessary to describe and analyse discursive processes. The data includes both text data and contextual data. Text data is extracted from selected policy and management documents and generated in qualitative interviews with individuals who work with the policy frameworks under study. Contextual data is derived from a broad range of documentary sources.

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┌─────────────────────────────────────────────────────────┐
│              Selection of case study areas              │
└─────────────────────────────────────────────────────────┘
                            ↕
┌─────────────────────────────────────────────────────────┐
│                  Contextual analysis                    │
│                                                         │
│  Sources: Descriptive texts; Secondary quantitative     │
│  data on population, economic activity, housing         │
│  etcetera; Interview data.                              │
└─────────────────────────────────────────────────────────┘
                            ↕
┌─────────────────────────────────────────────────────────┐
│                  Discourse Analysis                     │
│                                                         │
│   • Dominant and competing development narratives       │
│                                                         │
│   • Discursive constructions of coastal imaginaries     │
│                                                         │
│   • Mobilization of coastal imaginaries                 │
│                                                         │
│  Sources: Selected policy texts and interview           │
│  transcripts.                                           │
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┌─────────────────────────────────────────────────────────┐
│   Identification of roles played by coastal imaginaries │
│                 in place-frames/bundles                 │
└─────────────────────────────────────────────────────────┘
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┌─────────────────────────────────────────────────────────┐
│              Reflection on conceptual framework         │
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Figure 4.1 Research Strategy

Selection of case study areas

Healey (2007, p291) stresses the "deeply situated and contingent" nature of policy-making. This is further elaborated in the development of the conceptual framework for this research, through its focus on the emergent nature of spatial imaginaries and their role in place-frames. Given that these mobilise power through narratives of identity and functionality in the context of heterogeneous assemblages, it is vital that they are analysed at an appropriate scale and level of detail. In this context, the key criteria for the identification of a case study (or case studies) of coastal imaginaries in development policy-making, that would meet the needs of the research design, were that they should involve complex coastal identity/relationships and be sites of development contestation. As Pierce et al (2011, p.61) argue,

> "Analytically, relational place becomes 'exposed' for investigation and scholarship as it is made and remade, or via contestations…[…]…Through this process of discovering and analysing the various, competing conceptualisations of place, researchers can begin to understand what issues are being politicised and depoliticised in particular frames."

From its outset, the study identified the potential to develop an exploratory approach based on the existence of the European Marine Sites (EMS) that span the Scotland-England border (Figure 4.2). A fundamental challenge in deciding how to delineate the case studies was that the scales at which contestation would emerge in relation to coastal imaginaries were not known in advance. On the one hand, there was the danger that not enough relevant data would be extractable at the scale being engaged with, if the delineation of the case study was too constrained. On the other hand, it was recognized that detailed analysis at the very local scale could be critical to the identification of relevant data. The choice of the two case study areas, on either end of the national border, endeavoured to combine breadth and depth of analysis. In both cases, coastal ecosystems are a key focus for both development and restraint on development. They each contain extensive areas designated as being of high marine/coastal habitat conservation interest and significant landscape/seascape value, centred on European Marine Sites that are not constrained by national or local authority boundaries. It was envisaged that differences in constructions of coast between the two areas would enrich reflection on the drivers of such differences. At the same time, it was expected that there would be important similarities that could help to illuminate patterns of meaning and association.

As discussed further in chapters 5 and 6, both areas demonstrate:

- Examples of local attempts to address development and management issues across national and local boundaries, as well as across the land/marine interface.

- Ongoing change in institutional jurisdictions, roles and relationships;

- Changing conceptions of the functioning of territories, in both development and ecological terms;

- Redefinition of spatial boundaries in response to changing perceptions of the relationships between land and water resources, particularly in response to the introduction of marine spatial planning and catchment management, in the context of historical processes of coastal management.

- Changing institutional responses to the complexity of ecosystem dynamics and pressures;

- Local implications of international commitments to biodiversity protection and climate change mitigation/adaptation (especially through low carbon energy infrastructure), that transcend national boundaries.

- Complex economic characteristics and relationships reflecting historical and ongoing processes of industrialization, urbanization and resource use.

The first case study is of the Solway Coast, based on the Solway Firth European Marine Site. The Solway Firth is the third largest estuary in the UK and the second most powerful tidal estuary after the Severn. The main development hubs for the surrounding area are Dumfries in south-west Scotland and Carlisle and Workington in Cumbria. The Solway Area of Outstanding Beauty lies on the southern shore of the Firth and three Scottish National Scenic Areas lie on its northern shores. The Solway Firth Partnership was set up in 1994, with cross-border input from local authorities, environmental regulators, fisheries and harbour management organisations, Crown Estate and Scottish Enterprise. It has experienced increased pressure over recent years, arising from reduced support as a result of changing priorities within organisations such as Scottish Natural Heritage (SNH) and competing demands on local authority resources. While there is no provision in the Marine and Coastal Access Act 2009 or Marine (Scotland) Act 2010 for any alternative cross-border arrangement to take the place of the Partnership, Taylor (2009) suggests that stakeholders would like to see a single Marine Plan for the Solway which could then feed into complementary marine plans under the Scottish and English systems.
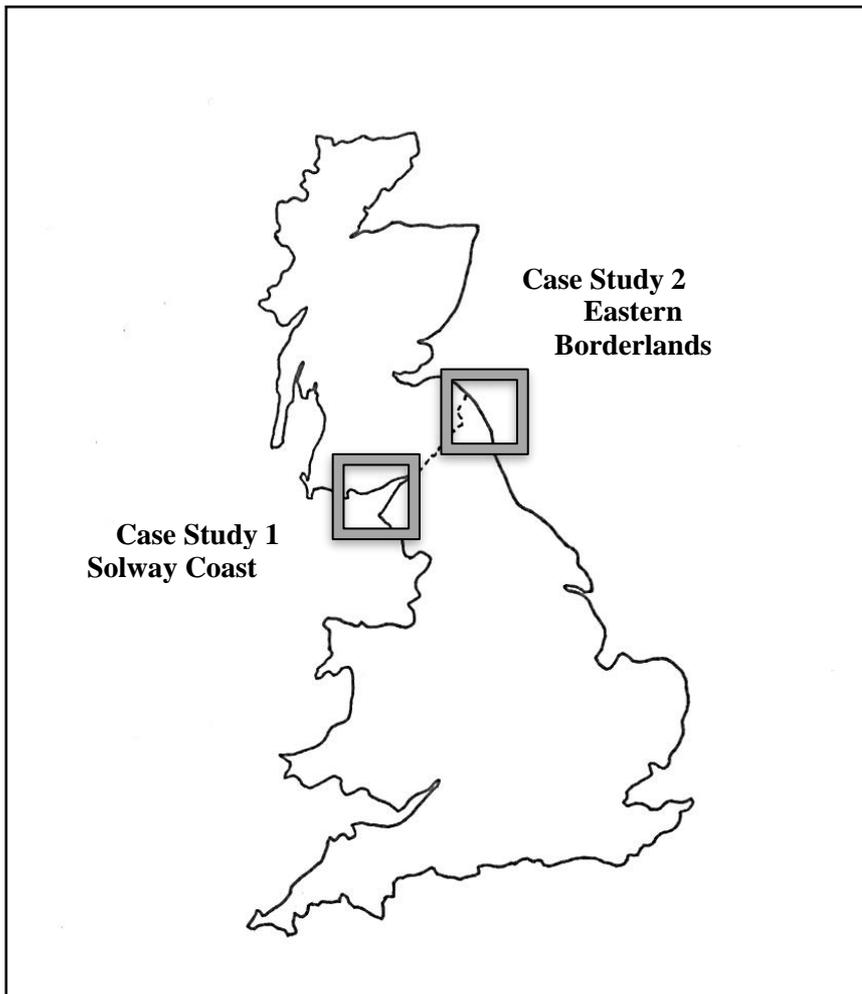
Figure 4.2: Location of case study areas

The second case study is that of the Eastern Borderlands. It is focused around the eastern coast of the England-Scotland border, where the mouth of the River Tweed opens into the Berwickshire and North Northumberland Coast European Marine Site. The area has a complex settlement structure, with its main concentrations of population based in the former industrial hubs of the mid Tweed valley and south east Northumberland, in the Scottish Borders and Northumberland respectively. A joint management plan covering both the North Northumberland Area of Outstanding Natural Beauty (AONB) and the Berwickshire and North Northumberland Coast European Marine Site, under the auspices of the AONB Partnership and EMS Management Group was published in 2010. This was greeted as an important innovation in coastal management practice. However, four years later both groups published separate management plans for the each of the sites. This reflects apparent tensions within institutional relationships for development planning and ecosystem management. The economic and environmental significance of the Tweed catchment is reflected in the ground-

breaking work of the Tweed Forum, which has tentative links with the overall coastal management framework.

Interviews

Twenty qualitative interviews (Table 4.1) were used to generate data on the range and nature of:

1. Constructions of 'the coast' and contextual constructions of territory;
2. Conceptions of development trends, opportunities, environmental functioning and how they relate these to interpretations of policy.

They were designed to be conversational encounters, involving "an active process where interviewer and interviewee through their relationship produce knowledge" (Kvale and Brinkmann, 2009, p.17). They aimed to generate rich descriptive narratives from active participants in policy development and/or implementation in the case study areas. At the same time, the approach identified 'silences': development issues and connections not raised by the interviewees. This requires a high level of reflexivity on the part of the researcher, as discussed further in relation to the interview design below.

Identifying interviewees

Healey (2007, p.178) defines a policy community as "networks of relations and frames of reference that develop among actors interlinked through regular relations around the articulation and operationalization of a particular set of policy issues, and from which a shared understanding of issues and debates evolves". The interviewees were identified from development and environmental policy communities in each of the two case study areas, as listed in Table 4.1. This list was developed flexibly as the research proceeded in order to cover a wide range of actors involved in policy-making that referenced conceptual constructions of coastal territories. In most cases, there was one interviewee from each organisation but in Northumberland County Council and Solway Firth Partnership, there were two. Despite repeated requests for interviews from Natural England (Case Studies 1 and 2) and Scottish Borders Council (Case Study 2), the study was not able to identify willing interviewees within the study period. Eleven interviews were thus obtained in Case Study 1 and nine in Case Study 2, with an additional pilot interview in the Case Study 2 area carried out during the design process for the interviews.

Case Study 1		Case Study 2	
Dumfries and Galloway Council; Carlisle City Council; Allerdale Borough Council; Cumbria County Council	ISF040614_Local Government ISF120514_Local Government ISF130514_Local Government ISF010714_Local Government	Northumberland County Council	BNNC060214_Local Government BNNC121213_Local Government
Environment Agency; Solway Coast AONB; Scottish Natural Heritage	ISF290514_Environmental Manager ISF130514_Environmental Manager ISF010714_Environmental Manager	Environment Agency; Scottish Natural Heritage; Scottish Environmental Protection Agency; National Trust for Scotland	BNNC260214_Environmental Manager BNNC190314_Environmental Manager BNNC030614_Environmental Manager BNNC140214_Environmental Manager
Dumfries and Galloway Biodiversity Partnership; Dumfries and Galloway LEADER; Solway Firth Partnership	ISF140514A_Partnership Organisation ISF140514A_Partnership Organisation ISF150514_Partnership Organisation ISF050614_Partnership Organisation	Tweed Forum; Northumberland Coast and Lowlands LEADER; BNNC EMS Partnership	BNNC041213_Partnership Organisation BNNC300114_Partnership Organisation BNNC200114_Partnership Organisation

Table 4.1 Organisational affiliations and code names of interviewees used in analysis (unmatched)

Designing and undertaking interviews

The interviews were designed from the outset to allow the analysis of:

1. Representations of development, including perceptions of policy conflicts and priorities
2. Representations of the identity (-ies) of coast.

A major challenge is to enable respondents to express their views "in their own words" in order to generate data that can support complex qualitative analysis (Byrne 2012). At the same time, it was vital to avoid asking leading questions or imposing any potential bias by asking direct questions about such representation.

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1. Could you please describe your working role here in this area?
2. How long have you been involved in this role?
3. Are there other related roles that you hold or have recently held in the area?
4. How would you describe the policy approach with which you are working?
   - i. *Scale*
   - ii. *Locations*
   - iii. *Cross-border*
   - iv. *Connections*
   - v. *Examples*
5. How is policy changing?
   - i. *Pressures*
   - ii. *Development priorities or needs*
   - iii. *Who is involved and how*
6. What changes do you think are needed?
7. Do you expect further changes?
   - i. *Locational issues*
   - ii. *Institutional changes*

Box 4.1 Schedule of interview questions/prompts

A protocol or schedule (Box 4.1), routinizing the interview approach, was therefore developed and piloted with a volunteer respondent, who had considerable experience in local development initiatives in the Case Study 2 area. The schedule was designed to maximise the transparency of the research approach and to generate conversation around development and spatial relationships for the area, while avoiding the imposition of researcher bias. The

schedule enabled the researcher to cover the full range of topics in roughly the same order for each respondent. It helped to focus critical awareness throughout the interview while keeping attention on the respondent and being responsive, at the same time as constraining the scope of the conversation. Interviewees were encouraged to talk about their experience of policy development in the case study area in relation to their (and others') assumptions and assertions about territorial functioning and territorial relationships. While a key focus of analysis is the identification of different assumptions about what is 'coastal' and the different ways in which this term is used, the interviewing technique aimed to avoid leading or indicating any particular definitions or associations with 'coast'. Thus the interviewee's introduction to the study (see Annex) aimed to give a general outline, while the interview schedule establishes, from the outset, a focus on the policymaker's role and experience and how they perceive the overall territorial context in which they are developing policy. The researcher aims to tease out how the interviewee positions concepts of the 'coast' within this framework. As the interview proceeded, the researcher used a set of points of analytical reflection (Box 4.2). They were not used as direct questions, as these would have imposed unacceptable direction on the narrative but were, if necessary, linked to follow-up clarification in conversational terms.

- What is the emerging picture of development/change in the case study area?
- What sort of territorial framework does this relate to?
- In what ways are coastal associations/descriptions used by the interviewee?
- What is the emerging picture (if any) of coastal identity?
- What are the governance relationships/networks identified by the respondent?
- Have I explored instances of exclusion, ambiguity or contradiction?
- Is there identifiable conflict or repression of voice?

Box 4.2 Points of analytical reflection underpinning interview schedule

The interviews were carried out between December 2013 and July 2014. They were designed to last an hour, as agreed with the interviewees beforehand, although in some cases interviewees were happy to continue for longer than an hour. All of them were recorded, with the knowledge and consent of the interviewees. They were then transcribed verbatim and stored for analysis using Nvivo 10 software to allow the marking up, cross-referencing and

exploration of the analytical themes. All interviewees were afforded confidentiality in order to create a clear 'safe space' for open reflection, as discussed above and in relation to ethical considerations later in this chapter.

Policy texts

The choice of 'policy documents' for analysis was based on particular assumptions about the legitimacy and power of planning and management documents in development and environmental governance. This assumes that these documents represent significant narratives in processes of decision-making and resource allocation. The choice of documents attempts to capture a broad range of current discourses being used to underpin decision-making. The analytical priority was to identify the qualities and processes associated with identifications of 'coast'. The initial focus, as set out in Table 4.2, was on management policy documents for the European Marine Sites and AONBs and both approved and consultation planning policies for the areas. The AONB Management Plan for the Solway Coast (Solway Coast AONB Partnership, 2010) provided detailed text that was designed to guide land use policy for the area through local planning policy for both Carlisle and Allerdale. This was a significant influence in the ongoing preparation of local plans for both areas at the time of study. At the same time, the AONB management plan was under review, in the context of changes in national spatial policy for both land-use and marine planning.

Similarly, the publication of a joint EMS/AONB management plan for the Berwickshire and North Northumberland Coast in the Eastern Borderlands case study (Northumberland Coast AONB Partnership and Berwickshire and North Northumberland Coast EMS Management Group, 2009) offered an important opportunity to explore construction of coastal identity in the context of a joint focus on both terrestrial and marine issues. At the same time, the study had access to consultation documents for management review for both the EMS and the AONB and to detailed consultation phases for new local plans for both the Scottish Borders and Northumberland. In the case of the Scottish Borders, the local plan was being prepared in the context of new regional planning guidance for South East Scotland (SESplan, 2013). Northumberland County Council was preparing the first strategic local plan for the whole of the county since the amalgamation of six separate planning authorities, in the context of major shifts in national planning policy guidance. At the same time, in both case studies, links to emerging local and regional economic policy documents were identified as being particularly relevant, as discussed in detail in chapters 5 and 6.

Case Study 1	Case Study 2
Solway Coast AONB and Solway European Marine Site Management Plan Solway Coast AONB Management Plan 2010 – 2015 Scottish Natural Heritage and Natural England Regulation 33 Advice for the Solway European Marine Site 2010	**Northumberland Coast AONB and Berwickshire and North Northumberland Coast EMS Management Plan** Joint AONB and EMS Management Plan 2009 Northumberland Coast AONB Management Plan – First Consultation Document 2013 Northumberland Coast AONB Management Plan 2014 BNNC European Marine Site Regulation 33 Advice 2000 BNNC European Marine Site Management Scheme 2014
Dumfries and Galloway Local Development Plan Proposed Local Development Plan 2013 Local Development Plan 2014 **Carlisle Local Plan** Carlisle District Local Plan Preferred Options Consultation 2011 **Allerdale Local Plan** Allerdale Local Plan Consultation on Preferred Options 2012 Allerdale Local Plan Pre-submission Draft 2013 Allerdale Local Plan (adopted) 2014	**Northumberland Local Development Plan Core Strategy** Northumberland Local Development Plan Consultation on Issues and Options 2012 Northumberland Local Development Plan Core Strategy Consultations 2013 Draft Northumberland Local Development Plan Core Strategy 2014 **Scottish Borders Local Plan** Strategic Development Plan for Edinburgh and South East Scotland 2013 Scottish Borders Local Plan Main Issues Report 2012 Scottish Borders Local Development Plan Consultation Draft 2013 Draft Scottish Borders Local Development Plan 2014

Table 4.2 Policy texts identified for analysis

Critical discourse analysis in planning research

As Hajer and Versteeg (2005, p.176) highlight in their review of discourse analysis in environmental politics, discourse analysis has been increasingly used in social research due to its capacity to "reveal the embeddedness of language in practices; answer 'how' questions and illuminate mechanisms". In this context, they usefully define a discourse as "a particular linguistic regularity" that "distinguishes it from 'deliberation' and 'discussion'" and involves underlying processes of "the creation, thickening or discarding of meanings" (ibid, p176). The analytical task of tracing power through such differential constructions of meaning is, by its very nature, 'critical' (Wagenaar, 2011). Methodological approaches of 'critical discourse analysis', associated with the work of Fairclough (1992, 2001, 2003, 2009, 2010, 2012) specifically targets the ways in which discourse constructs and represents, and becomes constructed and represented by, the social world. It places central emphasis on the diversity of discourse, agency and struggle in governance processes and focuses on language as a cultural tool that mediates relationships of power and privilege in social interactions, institutions and bodies of knowledge.

As Fairclough acknowledges, methods of critical discourse analysis (CDA), involve a variety of approaches (Fairclough, 2012), all of which treat power relations as normalised and legitimised through discursive and material practices that are expressive of a larger social order (Fairclough, 1992; Blommaert and Bulcaen, 2000; Wagenaar, 2011). This social order forms "the background assumptions which on the one hand lead the text producer to 'textualise' the world in a particular way, and on the other hand lead the interpreter to interpret the text in a particular way" (Fairclough, 2001, 71). This establishes a direct link between text and action, revealing "common sense in the service of unequal relations of power" (Fairclough, 2001, 70). CDA has significant interconnections with the approach to phronetic research promoted by Flyvbjerg (2006 and Flyvbjerg et al, 2012), which argues for research engagement with issues of power through the identification of points of tension in particular cases. In this study the tensions are identified at the scale of strategic policy: the tension between dominant and alternative development discourses. CDA therefore involves not only the analysis of texts, and processes of production and interpretation of those texts, but also the relationship between these and the situational and institutional contexts. As Wagenaar (2011, pp.110-111) explains:

> "Meanings are actualized in specific context-in-use, depending on the particular historical circumstances and the specified intentions, challenges and possibilities that actors face."

Taylor (2007) argues that CDA is of particular value in

> "documenting multiple and competing discourses in policy texts, in highlighting marginalised and hybrid discourses, and in documenting discursive shifts in policy implementation processes" (p. 433).

It focuses on identifying the relationship between the social context and performativity of a text, on the one hand, and its internal relations. It is thus an 'interdiscursive analysis' identifying what relationships and discourses are being drawn on in the text and analyzing how they are worked together (Taylor, 2004; Wagenaar, 2011).

The social order within which a text is operating is described by Fairclough as the 'order of discourse': a networking of ways of interacting 'genres' (such as policy, which is the focus of this study) and ways of representing ('discourses'). All texts are seen as dialogical i.e. setting up relations between different 'voices'. Fairclough (2003) proposes three primary types of meaning that can be distinguished in textual analysis. Actional meanings are the meanings that the text has as a part of social action and are closely related to the genre of the text (eg. a policy document). Representational meanings relate to the perceptual and conceptual worlds in which the text positions itself. As Wagenaar (2011) points out, meaning is also defined by what is not in a discourse, as discourses involve reduction from the whole field of potential meanings or differences (the 'field of discursivity'). Identificational meanings are the textual construction of actor identities i.e. the style of the text. In this study the construction of this identity is the construction of legitimacy and assumptions of 'common sense' underpinning the approaches to development and spatial allocations for the area, revealed in interviews and in policy texts.

MacCallum and Hopkins (2011) adapt CDA to identify shifts in development and planning discourses for the city of Perth in Western Australia, by distinguishing representation of substance, construction of agency, generic structure (themes and narratives) and presentation across a time series of city plans. 'Substance' concerns the delineation of what is presented as significant from what is either marginalised in a text or even fully excluded. It sets out the basis for justification of planning policy, both explicitly and implicitly referring to causal and mediating relationships between phenomena e.g. the connection of urban problems to demographic, social, economic and environmental factors and alternative planning strategies. Agency is differentiated between the historic shapers, producers, readers, implementers and

others involved in the process invoked by the plan. The analysis of structure looks at the legitimising techniques mobilised in the plan (e.g. the prioritisation and weighting of themes and arguments in the overall content), closely allied to visual presentation.

Using Critical Discourse Analysis in this study

In this study, the analysis of the texts is designed to follow the schematic set out in Figure 4.2, where the variations of particular interest are the spatial imaginaries of coast and alternative discourses of development. It incorporates the interrogation of spatial imaginaries proposed by Healey (2007), as interpreted in Box 4.3.

1. How is the spatial imaginary bounded and what are its scales?

2. What are the key descriptive concepts, categories and measures?

3. How is the spatial imaginary positioned in relation to other spatial entities? What are its connectivities and how are these produced?

4. Who or what is 'in focus'? Who is present? How are non-present issues and people brought 'to the front'? Who/what is 'in shadow' or in 'back regions'?

5. How is the connection between past, present and future established?

6. Whose viewpoint and whose perceived and lived space is being privileged?

Box 4.3 A framework for the description of spatial imaginaries
Adapted from Healey, 2007, pp. 209-210

At the same time it seeks to analyse and position them in the context of competing discourses of development. Thus representations of spatial imaginaries of coast and competing discourses of development are explored in specific cases at a particular period in time, in order to answer the first two research questions set out in the introductory chapter :

1. How do different constructions of the spatial imaginary of 'coast' relate to power in development governance?

    a. What are the conflicting development discourses active in policy-making?
    b. How are spatial imaginaries of the coast mobilized in emergent place-frames (or place/bundles) and how do these relate to the conflicts identified?

2. How do constructions of coast in development policy-making enable dominant development discourses and disable alternative discourses?

    c. Is there evidence of the exclusion or repression of policy alternatives? Which alternatives are included and which are excluded through these discursive mechanisms?
    d. How do constructions of coast relate to hegemonic or dominant development discourses? Whose viewpoint is privileged? Are there shadow viewpoints?
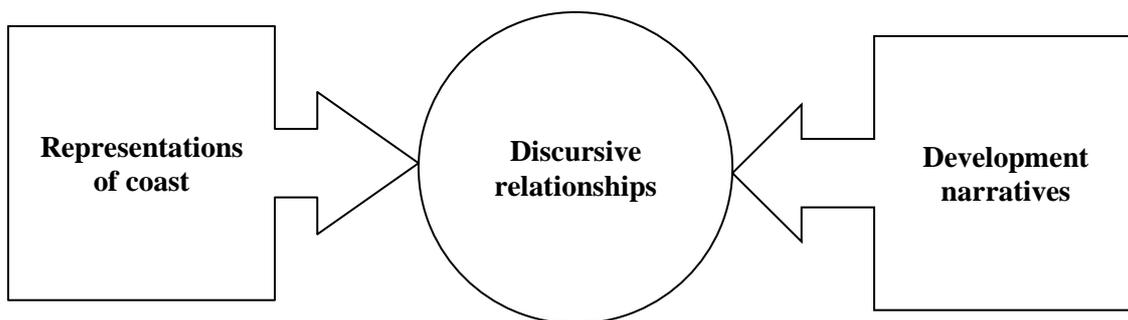
Figure 4.3 Key elements of text analysis

Research question 3 explicitly relates the findings back to the conceptual framework in order to explore its implications for the theory and application of development governance aimed at sustainable and equitable processes and outcomes.

Discourse analysis depends on developing a deep knowledge of text data. Foucault asserts that any text should be approached in terms of "its structure, its architecture, its intrinsic form and the play of its internal relationships" (quoted in Tonkiss, 2012, p.412). This includes the identification of key themes and arguments, association and variation, characterisation and agency, emphases and silences (Alexander, 2009). Identifying key themes and arguments will

range from the identification of keywords or phrases that are powerful carriers of meaning to analysis of the orders of discourse around concepts of 'the coast'.

Key to engaging with the meaning of texts is the identification of inconsistencies and contradictions. These reveal the way in which a text is working to exclude or disempower alternative accounts. Thus, for instance, different discourses of 'the coast' draw different boundaries for its landward extent, which has direct implications for identification of the stakeholder population for coastal resources. A further core aspect of analysis is the explicit and implicit ways in which documents or other texts are related to one another (intertextuality). These include temporal relationships and relationships of hierarchy and understanding of authorship or editorial and decision-making rights in relation to a text (Taylor, 2001; Taylor, 2004).

Understanding change involves the identification of the emergence of new discourses and the processes through which these are incorporated or change existing discourses. Fairclough (2010) describes the dissemination of emergent hegemonic discourses across structural boundaries (e.g. between organisations) and scalar boundaries (e.g. from local to national or international scale) as the process of "recontextualisation". CDA also seeks to analyse the way in which discourses are 'operationalised' and 'enacted' in new social practices, ways of interacting, identities and material outcomes (ibid, see also MacCallum and Hopkins, 2011).

The choice of what to include as context for the analysis of text, from the vast array of complex data available, is critical to the research process. It is therefore important to stress that this choice has been framed first by the environmental policy characteristics used in identifying the case study areas and second, by the main data sources chosen: local planning, economic and environmental policy documents and the qualitative interviews. The key economic, social and environmental themes revealed in the sources provide the contextual frameworks for the analysis of active coastal imaginaries described in chapter 7. They identify key tensions in development discourses for the case study areas, around which issues of actor inclusion, exclusion and the power to shape and determine development policy can be explored.

Use of Nvivo Software

Exploration of the meaning encapsulated in the use of the term 'the coast', or attached to its use, requires systematic identification and recording of themes, nuances and variations in the following text sources: policy and management documents, supporting documents, verbal explanations or statements about the coast and the policy and management activities associated with the coast (Wetherell et 2001a, 2001b). The use of Nvivo 10 software in this context enabled the examination of relatively large bodies of text and multiple, iterative queries within the data. It also made cross-referencing and comparisons between source texts very straightforward.

<div style="border:1px solid black; padding:1em;">

1. Storage and management of annotated data

2. Searching for key words and text phrases

3. Annotation of text data

4. Organising and searching data according to themes

5. Mapping and exploring connections, relationships, patterns, processes and ideas within data

</div>

Box 4.4 Functionality of Nvivo 10 software used in the research

Based on Lewins and Silver, 2007, p9

Methodological issues

The research approach undertaken in this analysis is based on the building up of richly detailed case studies in which competing development discourses can be identified and constructions of spatial imaginaries of coast traced. The methodological decision to develop two case studies resulted in both insights and limitations to the study, however. This decision was driven by initial uncertainties about the scale at which coastal constructions might be expected to be active in relationships of power. A conceptual framework based on relational geography means that setting territorial 'boundaries' on the case studies must be an exploratory process. In this study it has been shaped by the focus on the local plan-making processes of the planning authorities involved, all of which have very different physical

dimensions and characteristics. As the analysis progressed, it became clear that the development discourses and construction of coastal imaginaries were operating dynamically within a whole range of scales, pointing to the importance of network concepts in their description.

In practice, working with two case studies meant that detail of analysis was spread over a wider set of development narratives and institutional arrangements. Further in-depth analysis of either case study area would yield correspondingly deeper insights into the working of such constructions. However, as the two areas share many similarities, in terms of their location on the England-Scotland border, their size, population and economic profile, the interviews and text analysis in one case study raised issues of interest for the other. Thus, the focus on two case studies, based on what could be construed as sub-regions of the larger case of the England-Scotland border, enabled a dialogical process in analysing initial findings from each of the areas, which was found to be extremely valuable to the interpretive analysis.

The relative use of interviews, policy texts and secondary data was different in each of the case studies, reflecting asymmetrical processes in identifying themes and generating data. It also reflects the differential access to policy planners in each of the case studies, which was partly due to the different stages that the local plans were at during the interview period of the study. However, the emergence of competing discourse around housing policy identified more strongly in Case Study 1 interviews than in Case Study 2 interviews was found to be more explicitly reflected in Case Study 2 policy texts than in those of Case Study 1. This is reflected in the reporting of the findings in chapters 5 and 6.

Ethical considerations in research design and delivery

All social research generates ethical decisions (Ali and Kelly 2012). As discussed above, the object of this research is to understand power and inequities in power. At the same time, as Wagenaar (2011, p.5) argues, "there is no morally neutral constructivist work"; instead "the purpose is to unmask, to reveal what is hidden" (quoting Hacking, 1999, p.53). In this study the focus is unmasking of power differentials in development planning processes. In particular, the study asks if different meanings associated with the discourse of the coast can be used to disempower as well as empower particular interests through the development and implementation of planning policy. It treats all knowledge as essentially political on the basis that power is inherent in knowledge production. In this context, transparency is an important

objective in enabling and maintaining the critical reflexive dialogue underpinning this approach.

This conceptual framing raises particular issues in relation to interview participants. As Hammersley (2013) notes, specific ethical issues in constructionist forms of discourse analysis may arise from the gap between the perception of interviewees about the type of information they are giving and the type of discursive data generated by the analysis of interview texts, which, in critical research such as this study, undertakes to identify and interrogate dominant discourses and uncover hidden discourses. He argues that this amounts to deception in terms of the expectations raised about the nature and use of data. However, Taylor and Smith (2014) argue that interviewees do not expect to engage with the conceptual approach of the researcher and allocate their cooperation and time accordingly. In addition, the provision of too much "information" by the researcher either before or during the interview is very likely to result in self-conscious language or 'reactivity' on the part of the interviewee.

The information about this study provided to the interview participants is encapsulated in the introductory email and study overview set out in the Annex. It highlights that the request was made in very broad terms and proposed that the study's aim was to record the changing awareness and treatment of coastal resources within development policy-making. The attachment stresses that the researcher's interest in the interview will be on their perceptions and experiences in their professional role. Given the constraints on the information it is possible to give the participants, their consent to be interviewed depends on their trust that the research and its publication will not harm their personal or professional interests or standing (Social Research Association, 2003; Thomas, 2011). The interviews were limited to an hour in this context, as most interviews took place within work time. The anonymity of the interviewees was also an important aspect of both the data management and reporting of the study. The content of the interviews was treated as strictly confidential. While the analysis depended on being able to transcribe a recording of the interview, the recordings were deleted after transcription and all reference to their content is anonymised. At the same time, justification of funding and the time and energy given by participants in the study is based on the ethical premise that the research offers benefits beyond the interests of the researcher. It is in this context that implications of the study for the development of planning theory and practice are discussed in detail in chapter 8. The case studies are described in chapters 5 and 6, as the basis of analysis of the performance of spatial imaginaries of coast in chapter 7.

Chapter 5: Case Study 1 – The Solway Firth

It has a subtle haunting charm. On the Scottish side the majestic Criffel frames huge expanses of sand and mudflats reflecting the colours of spectacular sunsets, and haaf netters still fish for salmon like their Viking ancestors. On the English side the plain rises gently to meet Skiddaw and Blencathra, watching over the scene like giant sentinels. Lying in between is the silver ribbon of the Solway. (Nixon and Dias, 2007, p.10)

Introduction

Case Study 1 centres on the 'coast' of the Solway Firth, the third largest estuary in the UK, lying between the English county of Cumbria and the extensive Scottish local authority of Dumfries and Galloway (Figure 5.1). While it is described as "one of the largest, least industrialised and most natural sandy estuaries in Europe" (Natural England/Scottish Natural Heritage, 2010), around 150,000 people live in the adjacent settlements.
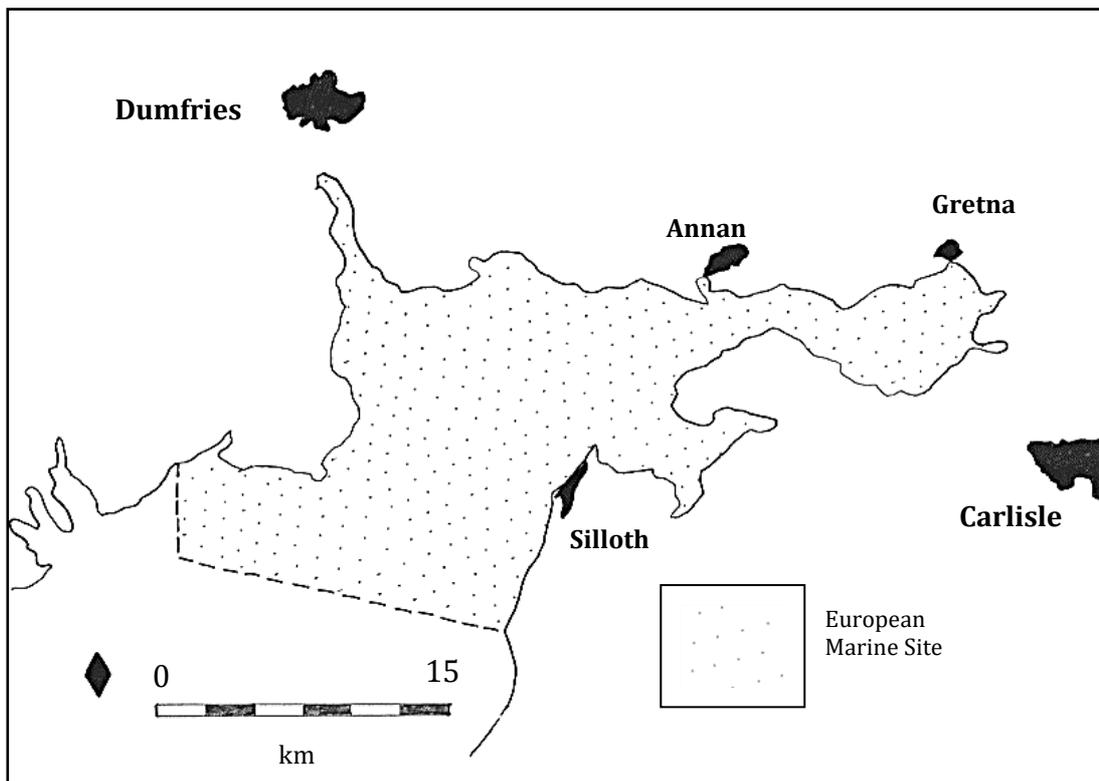
Figure 5.1 The Solway Firth EMS

These include the main urban centres, Carlisle and Dumfries, which lie just over 50 km apart on the cross-border M6/M74/A75 transport corridor. Allerdale borough stretches along the south side of the estuary. Its core urban settlement is Workington, the main commercial port on the outer coast of the Solway.
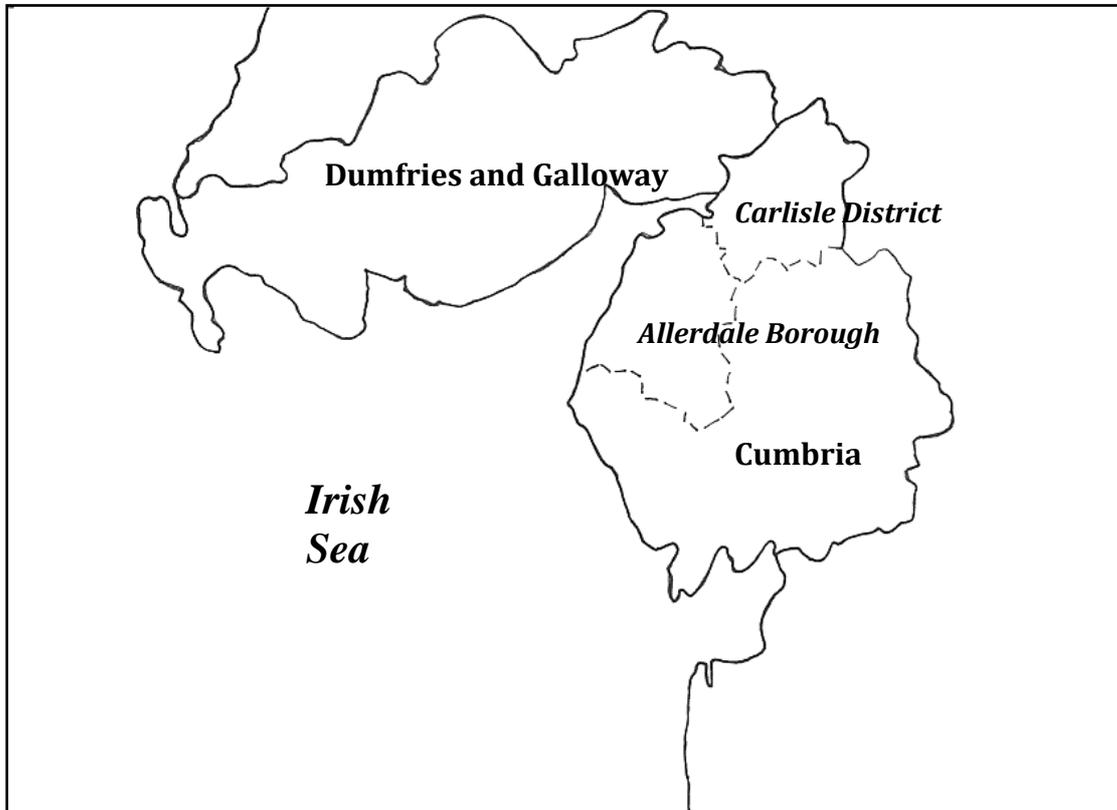
Figure 5.2 Local authority boundaries in Case Study 1

The Firth drains a large part of northern Cumbria and the south-western borders of Scotland. The complex inner estuary brings together a number of rivers, including the Nith, the Annan Water, the Sark, the Esk, the Eden and the Waver and Wampool. The surrounding land has been artificially drained over centuries to create an open pastoral landscape against the backdrop of the hills and foothills of the Southern Uplands, North Pennines and Cumbrian Fells (Figures 5.3 and 5.4). Extensive areas of wetland still remain, however, including the internationally significant Solway 'mosses' (lowland raised bog habitat) and salt marsh. The inner reach of the Firth is designated as a 'transitional water body' under the Water Framework Directive and is classified as being of 'moderate' quality due to organic pollution, largely attributed to diffuse, agricultural sources. A target date of 2027 has been set to achieve 'good' status for water quality (SEPA 2009, 2014a).

Figure 5.3 View to Galloway Hills from Silloth

Source: Author

Figure 5.4 View to Lake District from Solway Coast AONB

Source: Author

Figure 5.5 Grazed wetlands in Solway Coast AONB
Source: Author

The Solway Firth European Marine Site designation incorporates the Solway Firth Special Area of Conservation (SAC) and the Upper Solway Special Protection Area (SPA). It aims to protect this estuarine environment, including extensive areas of salt marsh and salt meadow, intertidal and subtidal reefs, sandflats and mudflats, along with specific bird and fish populations. The SAC also covers adjacent dune and shingle habitat, while the whole of Allonby Bay to the west of the EMS was designated as a nationally significant Marine Conservation Zone in 2016. The River Eden SAC is designated to protect otter and fish species including salmon. Potential threats to conservation objectives for the Solway EMS include diffuse water pollution, energy developments, fishing activity and changes in land management (Natural England 2014).

The Solway Coast Area of Outstanding Natural Beauty (AONB) flanks the southern shores of the area (Figure 5.5). It is described as "a unique mosaic of coastal and pastoral landscapes" (Solway Coast AONB, 2010, p4). To the north, three National Scenic Areas encompass both sea and land in Dumfries and Galloway. The Nith Estuary NSA includes the river estuary itself and the surrounding slopes of Criffel, a distinctive hill that provides a key focus for views from the Solway Coast AONB. In 2007, the Scottish side of the Solway Firth was the subject of consultation on the potential for designation as a Coastal and Marine National Park, although this designation was then shelved in the light of forthcoming marine legislation. The

northern edge of the Lake District National Park lies adjacent to the case study area, while the Hadrian's Wall World Heritage Site crosses into it from Northumberland. While no longer visible above ground as it comes into Carlisle (originally Luguvalium, one of the most important military bases in Roman Britain), the line of the Wall continues to the shores of the estuary at Bowness-on-Solway, while a complex of Roman defence and provisioning infrastructure extends along the coastal edge to Maryport (Scott, 2015).

Development Context

The area is characterised by its low population density and dispersed settlement structure, as illustrated by Table 5.1. The three local planning authority areas of Dumfries and Galloway, Carlisle and Allerdale (Figure 5.2) have an overall population of 355,000. Alongside its dispersed settlement patterns and ecological and heritage interest, the Solway has a history of industrial, military and nuclear-related activity. West Cumbria was a core location for the British iron industry from the mid eighteenth century, based on local coal and iron ore resources (Bainbridge, 1949). Workington and Maryport were key ports for the export of coal and steel. Steel production ended in 2006 with the closure of the Corus plant in Workington. The last deep coal mine in West Cumbria closed in 1984 (British Geological Survey, 2001), and there has been very limited open cast production. North and East Dumfriesshire also have a history of coal working and there continues to be potential interest in coal and methane extraction from coal seams near Canonbie and Sanquhar.

The decommissioned Chapelcross nuclear power station rises behind Annan on the northern shores. The Nuclear Decommissioning Authority funds investment and regeneration work on both sides of the Firth. Nearby are the extensive traces of the largest British cordite-producing complex of World War 1, alongside munitions storage at Eastriggs and Longtown. The former Royal Naval Arms Depot at Broughton Moore, between Workington and Maryport, has been described as "one of the largest brown field sites in North West England" (BBC News, 2005). The Dundrennan arms testing range is still in operation across a swathe of the middle firth, while RAF Spadeadam is a large military training centre east of Carlisle. There are significant remote sensing stations near the shoreline at Anthorn (which transmits to the NATO nuclear submarine fleet) and in Eskdalemuir (an extensive seismological observation array).

Carlisle		Allerdale		Dumfries and Galloway	
Total Population: 107,500 **Total Area: 1000 km²**		**Total Population: 96,400*** **Total Area: 1200 km²**		**Total population: 151,300** **Total Area: 6400 km²**	
Carlisle	75,300	Workington	25,400	Dumfries (including Locharbriggs)	38,900
Brampton	4,000	Maryport	12,000		
		Cockermouth	8,200	Stranraer	10,600
		Wigton	5,800	Annan	9,000
		Keswick	5,200	Lockerbie	4,300
		Silloth	3,300	Castle Douglas	4,200
		Aspatria	3,400	Dalbeattie	4,200
				Newton Stewart	4,100
				Kirkcudbright	3,300
				Gretna	3,100

*Includes part of the National Park, not covered by Borough Council.

Table 5.1: Settlements over 3000 population in Carlisle, Allerdale and Dumfries and Galloway

Sources: Office for National Statistics, 2011; Allerdale BC (2014)

In contrast to its reputation as "a truly rural county" (Cumbria Local Enterprise Partnership, 2013, section 2), two of the UK's largest industrial sites are located in Cumbria on the southern shores of the county: the nuclear industry at Sellafield in West Cumbria and the BAE Systems shipyard at Barrow-in-Furness. These distinctly influence the development profiles of the local authority areas of Carlisle and Allerdale. Sellafield employs around 10,000 people, over half the UK's nuclear workforce, with thousands more in the supply chain. The proposed reactors at Moorside on the north and west of the Sellafield site are described by the developers NuGen (a joint venture between Toshiba and GDF Suez) as

"Europe's largest nuclear construction project". The nuclear industry and related engineering spin-offs are promoted as core economic drivers for Cumbria through the *Energy Coast* initiative:

> *"The development of a high tech manufacturing base in West Cumbria is gearing the region up to capitalise on opportunities to support the potential new nuclear power station to be built at Moorside by NuGen and the additional global opportunities offered by the 'Clean Tech' or low carbon industries."*
>
> (Britain's Energy Coast, http://www.britainsenergycoast.co.uk/location, no date, Accessed on 15 October 2015)

In addition to the new nuclear power station, other nationally significant strategic infrastructure investment projects currently being delivered in Cumbria include the Walney windfarm, which lies offshore from Barrow-in-Furness and is expected to be the largest offshore wind farm in the world by 2018 (DONG Energy, 2015). In 2014, the UK Ministry of Defence announced investment of over £300m in BAE Systems' submarine shipyard in Barrow-in-Furness to pave the way for the *Successor* nuclear submarine project, designed to replace the UK's *Trident* fleet.

Manufacturing provided 25% of Cumbria's GVA in 2012, compared with 18% by public sector, 16% by construction and real estate, 7% by tourism and 2% by agriculture, forestry and fishing (Cumbria Intelligence Observatory, 2015). Tourism brings 38 million visitors to Cumbria in 2012 (8% from overseas) generating £2.1 billion of visitor expenditure for the area's economy and providing an estimated 31,200 FTE jobs, centred on the Lake District National Park (Cumbria Local Enterprise Partnership, 2014).

Production and manufacturing accounted for some 18% of GVA for Dumfries and Galloway in 2011, equalled by the combination of construction and real estate. However, the dependence of the economy on the public sector, health and education is highlighted in their 26% contribution to the area's GVA. The relative contribution of agriculture, forestry and fishing is also high at some 5% of GVA, which is almost three times the overall Scottish figure (Crichton Institute 2014). Strategic industrial development priorities for Dumfries and Galloway centre on Dumfries, Stranraer and the Gretna/Lockerbie/Annan regeneration corridor adjacent to the M6/M74/A75 corridor, in which the decommissioned Chapelcross nuclear site is a significant brownfield site. While it will remain in the decommissioning

process for some 80 years and there is a possibility that it could also be a site for decommissioning nuclear submarine reactors (Ministry of Defence, 2014), other parallel development narratives for this site include low carbon energy production and high tech manufacture.

	Cumbria	Dumfries and Galloway	Great Britain
Population	499,800	148,100	61,425,700
Unemployment rate (%)	6.1	8.0	7.9
% self-employed	12.7	11.3*	9.6
% retired	26.5	25.4	16.5
% no qualifications	10.6	12.2	10.6
NVQ4 and above	26.4	27.0	32.9
£ gross weekly pay (FT)	481	420	508
% tourism-related jobs	12.7	10.4	8.2

Table 5.2: Demographic and economic indicators for Cumbria and Dumfries and Galloway

Source: NOMIS (2013) from Shaw et al (2013)

* The Crichton Institute (2014) notes a marked increase, reporting self-employment levels of 19% for Dumfries and Galloway

Dumfries and Galloway has 28% of Scotland's consented and under-construction onshore wind farm projects, on less than 10% of Scotland's total land area (Brodie, 2014). The *South of Scotland Competitiveness Strategy* treats investment in renewable energy in the region as a key opportunity for high technology development for the local economy (Crichton Institute 2014; South of Scotland Alliance, 2006, 2014). Table 5.2 illustrates that, overall, the regions on each side of the Solway have unemployment rates at or below the national average, but with strongly ageing populations (over 25% retired). In Dumfries and Galloway, over 10% of jobs are in agriculture, forestry and fishing and associated with low pay levels and a relatively high percentage of self-employment this sector (Crichton 2014). At the same time, Aiton et al

(2015) estimate that over 27% of employees in the region earn less than the "living wage". Significant areas of socio-economic deprivation are associated with former industrial activity in both Allerdale and Carlisle (Cumbria Intelligence Observatory, 2015)

Governance of Development

In this section, the case study describes the institutional frameworks active in development policy-making for the Solway Firth area. The planning policy frameworks at the time of this analysis reflect the response of the local planning authorities in Cumbria and Dumfries and Galloway to a broad range of changing policy requirements. The local plans for Allerdale and Dumfries and Galloway were at particularly advanced stages of preparation, while the Carlisle plan was in the last stages of consultation on its preferred options. At the same time, the case study set out to identify other actors seeking to influence strategic development and to scope the range of associated development narratives, with particular reference to the environmental characteristics described above.

Cumbria

Cumbria has two tiers of local authority plus the National Park authority, covering different, sometimes overlapping aspects of development strategy. The authorities with direct plan-making and development management responsibility for the case study area are Carlisle City Council and Allerdale Borough Council. By May 2014, Carlisle City Council had completed consultation on the "preferred options" for its local plan and was preparing a Final Draft Plan for publication in 2015. In July 2014, Allerdale Borough Council was able to adopt its new Local Plan (Part 1), while Part 2, setting out site allocations, was subject to consultation. Cumbria County Council plays a co-ordinating policy role through, for example, the production of guidelines such as the Cumbria Landscape Classification (Cumbria County Council, 2011). Cross-authority groups of planning officers meet on a county-wide basis, every quarter, to discuss monitoring and policy development. These meetings have also involved planners from neighbouring authorities in Northumberland and Yorkshire, but not Scotland, although Carlisle and Dumfries and Galloway planners have liaised on their emerging local plans. However, cross-border issues appear to be currently low on the planning policy agenda, despite the rhetoric surrounding the Border Economic Forum launched subsequent to the publication of the *Borderlands* report (Shaw et al 2013a and 2013b)

All three authorities have taken swingeing cuts in their overall budgets and anticipate further reductions. At the same time, the abolition of regional development agencies in 2012 in favour of the introduction of Local Enterprise Partnerships (LEPs) has completely restructured funding streams for public sector investment. LEPs are strategic public private partnerships responsible for deciding and leading on priorities for major public/private investment and channelling funding from a number of Central Government sources, including transport infrastructure and training, through national bidding processes. The LEP oversees the investment of the region's EU funding allocation through the Cumbria European Structural and Investment Plan 2014-2020, involving an estimated £78 million across 3 European funds (ERDF, ESF and EAFRD) (Cumbria Local Enterprise Partnership, 2014)

Since 2010, the regulatory authorities that play key roles in strategic land use planning, Natural England and the Environment Agency, have faced major reorganisation, budget cuts and loss of posts. Natural England, in particular, has been re-organised to play a more formal, enforcement type role, ensuring that local plans have met the requirements of regulations for designated sites once plans or policies have been drafted, with particular emphasis on the Habitats Regulation Appraisal of both the whole plan and for sites within or affecting European nature conservation sites. This has led to frustrations on the part of local planners:

> "*you can't ring Natural England and speak to them - you can't even access them through their website - the only way you can contact them is on a formal basis - you have to submit a consultation to them - so the interaction is very difficult – it's very difficult to get advice from them on an ad hoc basis - we find we're having to finish the plan or finish the Habs Regs appraisal and then submit it to them formally - whereas what we want to do is sit down with them at the beginning and have them help us scope it out - they haven't the resources to do that - it's been very, very difficult." (ISF120514-Local Government)*

In this context, the role of new Local Nature Partnerships is developing in both direct and indirect relation to the LEP and other partnerships. There are three Local Nature Partnerships in Cumbria: the Cumbria LNP covering the whole county, the Northern Uplands LNP (covering North Pennines) and the Morecambe Bay LNP. Both the Northern Uplands LNP and Morecambe Bay LNP also involve AONBs (the North Pennines AONB and the Arnside and Silverdale AONB). There is no Solway LNP, despite its comparably distinct ecological character. The Cumbria LNP is chaired by landowner Lord Inglewood, who is also President

of Cumbria Tourist Board and ex-Chair and non-Executive Director of the Carlisle-based firm Carr's Milling Industries.

An innovative institutional actor in rural development in the case study area is the European LEADER programme's Solway, Border and Eden Local Action Group, which covers the coastal strip on the southern shores of the Firth and the catchment of the River Eden. Between 2007 and 2013, it delivered rural business investment totalling £14.5 million, and was recognised as nationally significant in terms of its scale, range and success of its approach (Rose Regeneration 2014). The Local Action Group brings together a very broad range of actors, including local business, the local authorities, natural and cultural heritage interests and environmental regulators. A local office of the Marine Management Organisation is based at Whitehaven, from where it has worked with the North and West Cumbria Fisheries Local Action Group in administering local funding from the European Fisheries Fund (EFF), aimed at diversifying and increasing market value for fishing and coastal tourism activities.

The Solway Coast AONB, which covers much of the shoreline between Carlisle and Maryport in Allerdale, is managed by a small team, funded 75% by DEFRA and 25% by the local authorities to deliver the statutory requirements for a management plan. In addition the unit works to lever in other funding, through, for example, partnership bids such as the *Solway Wetlands Project*, funded by the Heritage Lottery Fund. The AONB unit has close relationships with the main environmental regulators, the Environment Agency and Natural England. Natural England is the lead statutory advisor on AONBs, under the Countryside and Rights of Way Act 2000. However, changes in available resources have also substantially reduced the advisory resource it was able to offer to the AONB unit in its management plan review in 2014-2015.

Dumfries and Galloway

Dumfries and Galloway Council is a unitary authority covering an area only slightly smaller than that of Cumbria but with a total population of just over 150,000. The authority-wide Local Plan was submitted to the Scottish Government in 2014. It operates within the guidance of the Scottish National Planning Framework, with its overarching aim of "sustainable economic growth" and a strong national drive for renewable energy development. These economic objectives are further defined in the *South of Scotland Competitiveness Strategy*, jointly produced by Dumfries and Galloway and Scottish Borders Councils and Scottish Enterprise (South of Scotland Alliance, 2006 and 2014).

Scottish Natural Heritage (SNH) and the Scottish Environmental Protection Agency (SEPA) perform comparable regulatory roles to Natural England and the Environment Agency respectively. These roles have been affected by the setting up of the Marine Scotland unit within the Scottish Government, with Marine Scotland taking over key roles in the coastal environment under the Marine (Scotland) Act 2010. Other changes in the role of SNH reflect those discussed above for Natural England, with a withdrawal from nature conservation work in the wider countryside in order to focus on designated sites and species.

The Dumfries and Galloway LEADER programme has been active for about twenty years, albeit with a smaller funding base (around £4 million in 2007-2013) than that of the more recent Solway, Border and Eden LEADER programme on the English side of the border. This has been a significant nexus for exploration of alternative development approaches. LEADER has been applied to all of Dumfries and Galloway apart from Dumfries and Stranraer and the Council are arguing for the whole of the authority area to be covered by the new programme. It is managed under a Local Action Group (LAG) on which an officer represents the Council as the lead partner in the region, along with officers from Scottish Enterprise and SNH, RSPB, Age Scotland and other representatives from community networks and private sectors such as farming and business. As in all LEADER groups, its work is framed by a Local Development Strategy (LDS) submitted as part of its bid for funding from central government.

LEADER funding is often used in combination with Heritage Lottery and other smaller sources for funding to develop projects. The projects funded in the latest round are described as predominantly focused on community development, often linked to responding to unmet local needs arising from cuts in local authority service provision or the potential for environmental improvement and interpretation projects that are "*essentially making people better connected with the places they live in*" [ISF100714_Partnership Organisation]. A parallel programme under the European Fisheries Fund has had its own Local Action Group, administered directly by Dumfries and Galloway Council Countryside Services Department. The experience of the LEADER programme on both sides of the Solway offers space for voices promoting alternatives to the dominant discursive assemblage of development through global competitiveness. Its focus combines local capacity and linkages with ecological resource-based innovation. One of the last projects to be funded by the latest round of the Dumfries and Galloway LEADER programme was the *Making the Most of the Coast* project led by SFP:

"a really lovely project for us to finish on in this programme because it gives us a really good set up for going into the new programme bringing the rural and coastal together". [ISF100714_Partnership Organisation]

Both programmes came to an end in 2014 in order to be replaced by a new LEADER funding programme that brings together both rural and fisheries funding objectives, under a new regional development strategy. The new programme is expected to be markedly more "strategic" and to reflect the addition of business support funding aimed at farm diversification and other business support, previously covered under the Scottish Rural Development Programme In this context, it is significant to note that while inclusion in the programme to date has included all settlements under a population of 10, 000, which excludes Stranraer (11,000) and Dumfries (33,000), the LAG is keen to include both towns on the basis of their very strong social and economic inter-relationships with their 'hinterlands'.

The Southern Uplands Partnership is a locally based organisation which has established a role in developing and delivering local projects using LEADER and innovative funding sources, including wind farm community funds. It was set up in 2000 to promote "the integration of environmental, social and economic land use policies, the sustainable use and management of land and water and other relevant activities in the Southern Uplands of Scotland so that they are compatible with considerations of the environment and local communities"(Southern Uplands Partnership, 2015, p 4). Projects include the Galloway and South Ayrshire Biosphere reserve, Wild Seasons green tourism promotion, and a SW Scotland Coastal Trail (highlighted in Scottish National Planning Framework 3).

Cross-Border Institutions

Governance arrangements for the water environment in the Solway area highlight the complexity of the institutional issues involved in cross-border working. The Environment Agency has overall responsibility for licensing salmon and sea trout fishing in the River Esk, the lower reaches of which form the Scotland-England border, while its headwaters lie almost entirely in Scotland. Responsibility for the delivery of the EU Water Framework Directive in the cross-border catchments of the Solway Tweed river basin district lies with both SEPA and EA and the related central government departments for both Scotland and England. Box 5.1 lists the members of the Solway Area Advisory Group. Sub-groups have undertaken the development of the North Solway and South Solway Area Management Plans, coordinated by

officers based in SEPA and EA respectively. Both plans aim to include the whole Esk catchment and there are shared commitments to cross-border monitoring and information-sharing arrangements in place. A statutory Cross-Border Flood Management Advisory Group brings together SEPA, the EA, Scottish Water and the four lead local flood authorities.

Cairnryan Port Authority	Royal Society For Protection of Birds
Consumer Council for Water	Scottish Borders Council
Country Land and Business Association	Scottish Government Rural Payments & Inspections Directorate
Cumbria Wildlife Trust	
Dumfries & Galloway Council	Scottish Natural Heritage
East Ayrshire Council	Scottish Power (Galloway Hydro)
Eden Rivers Trust	Scottish Environment Protection Agency
Environment Agency	Scottish Water
Forestry Commission Scotland	Solway Firth Partnership
Galloway Fisheries Trust	South Ayrshire Council
National Farmers Union (England)	South Lanarkshire Council
National Farmers Union (Scotland)	United Utilities
Natural England	

Box 5.1 Solway Area Catchment Planning Advisory Group
Source: SEPA, 2014b

At the same time, the protection of the habitats of the Inner Firth has been dominated by implementation of the EU Habitats Directive, for which Natural England and SNH have lead responsibilities, under their respective national legislation and regulations. Natural England published a Site Improvement Plan for the Solway Firth European Marine Site at the end of 2014 (Natural England, 2014) as part of its overall Improvement Programme for England's Natura 2000 Sites (IPENS).

The Solway Firth Partnership
The Solway Firth Partnership was formed in 1994 through a UK-wide coastal management programme, funded by SNH and English Nature (now Natural England) to draw up voluntary strategies for sustainable coastal management (UK Marine SAC's Project 2002). In 1996 the Solway was successfully put forward as a demonstration project for the preparation of management schemes for European Marine Sites, under the EU LIFE programme. In 1997, a Project Officer was appointed and the management structures developed under the Solway

Firth Partnership were utilised for the European Marine Site by extending the remit of the original Solway Project Working Group to provide steer and advice to the LIFE project. The *Solway Firth Review* was published in 1996. A statutory management scheme and action plan for the European Marine Site was officially launched, in February 2001, by English Nature and Scottish Natural Heritage. This suggests unresolved tension between the comprehensive ICZM approach suggested by the review and the statutory and regulatory requirements for reporting for the EMS. The Solway Firth Partnership was incorporated as an independent company with charitable status in 2003 and its development is discussed further as part of the next section.

Conflicting development discourses

This section describes the identification of conflicting development discourses within the case study area, drawing on local plan and other development-related texts, and interview analysis. Development narratives around the discourse of economic development based on global economic sectors and high-end market-led housing dominate the three local plans for the area. Alternative and potentially conflicting development discourses emerge in the work of the LEADER Action Groups and Solway Firth Partnership. These champion "community-led", local asset-based development approaches, with a particular focus on discourses of regeneration and capacity building for both urban and rural areas.

Dominant development discourses

Dominant narratives in the local plans for both Allerdale and Carlisle embrace the global, high-tech energy and tourism sectors as key to the overall performance of the Cumbrian economy. As the Chairman of Cumbria LEP explains:

> "The Britain's Energy Coast vision is at the very heart of Cumbria's economic transformation. Not many other parts of Britain, if any, are facing the prospect of £90 billion worth of investment in nuclear decommissioning and energy related projects. It will help Cumbria break up a dependence on a few large employers and allow businesses, established and new, to diversify and grow in a low carbon future." (Britain's Energy Coast, 2012, p.5):

In the Dumfries and Galloway local plan, the major drivers for economic development are identified as the development of the Scottish wind energy sector, as part of the national energy agenda, alongside the food industry and tourism (Dumfries and Galloway Council, 2014, p.29). As noted above, the M6/M74/A75 corridor is highlighted as a strategic development site for high-tech industry.

At the same time, for all three local plans, the role of housing markets is both central and essentially ambivalent, in terms of economic and environmental sustainability. On the one hand, environmentally sustainable housing development is expected to recycle brownfield land, minimise impact on biodiversity and increase the energy efficiency of transport and other infrastructure. Socio-economic objectives include inclusive and affordable development, stimulating regeneration and improvement of services. On the other hand, these objectives are combined with the central government policy discourse in both England and Scotland of 'unburdening' housing markets by reducing planning constraints on land supply. Authorities are expected to identify a generous supply of housing land that is accepted as economically 'feasible' by the industry (DCLG, 2012 pp.12-13).

In this context, the case study area demonstrates highly uneven market interest. While the larger 'urban' centres remain the location of the most extensive housing allocations, their housing markets struggle. Thus, in 2011, house prices within the urban envelope of Carlisle City were 7% below the average across the district and 16% below the figures for Cumbria (Carlisle City Council 2011).

In Allerdale, the West Cumbrian 'urban housing market' is particularly weak. In stark contrast, areas such as the 'market town' of Cockermouth experience strong housing development pressures. The latter specifically attract

> "*mainly commuter-type communities. A lot of them commute down to Sellafield because you have the high-value, high manager-type jobs but they live in Allerdale as opposed to the neighbouring borough.*"[ISF 130514_Local Government]

In all three plans, the drive to develop high value housing markets that can attract nationally (and internationally) significant labour markets is clear, with 'rural' housing markets, which include 'market towns', a particular focus (Figure 5.6).
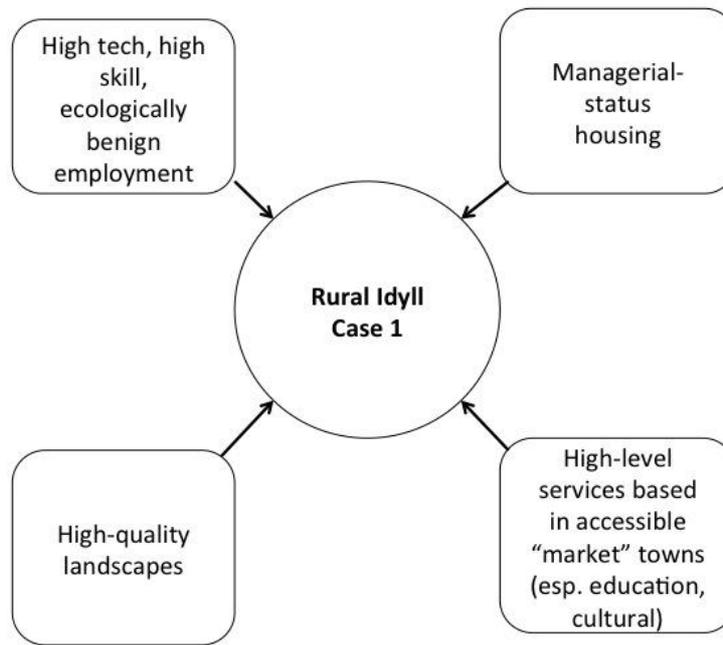
Figure 5.6 'Rural Idyll' development narrative in case study 1

This 'rural idyll' elides 'quality of housing', 'quality of environment' and 'quality of life' in a narrative of economic growth compatible with both landscape and ecological concerns. Local policy emphasises the 'organic' or 'natural' growth of settlements that fit this narrative. The economic importance of marketing an area as a visitor 'destination' merges with language about the 'environmental quality' of the area as a residential destination attracting highly-skilled workers to live, for example:

"*If we want to attract the high-end, high-skilled, highly paid type jobs to Cumbria, well, what's the quality of life that those people are going to have? So we need to have better housing stock, better infrastructure, better schools. We need to have a cultural offer – and not just – ok we get twenty million visitors a year coming to the central Lakes areas to see the so-called "natural beauty" - inverted commas because it is a managed environment – but what about the rest of Cumbria – shouldn't the rest of Cumbria be benefitting as a destination?"*[ISF070714_Local Government]

It combines particular styles of housing, the social infrastructures of high-salaried jobs, high-performing schools, and access to healthcare with notions of lifestyle, identity and community that can appeal to high-income population cohorts. This rural idyll underpins the maintenance,

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differentiation and social construction of housing markets through both symbolic and social capital (Scott et al, 2011). Thus for example, for the Allerdale housing market,

> *"Schooling has a big, big influence because Cockermouth's got a very high-performing secondary school in particular and then you've got Keswick, which is outside the planning area but has that influence. You've got Wigton and I think a lot of kids from Carlisle go to the Wigton school. So you've got these honeypots in terms of housing market and a lot of it's school-led and then you've got Workington that's got less favourable educational attainment – I think both the secondary schools are now going to merge because they both had poor Ofsteds and Maryport's very similar."*
> [ISF070714_Local Government]

While the Dumfries and Galloway local plan strategy acknowledges the importance of minimising additional transport demand in relation to housing development, it maintains and strengthens the dispersed settlement structure of the region and expects "at least 20% of the housing land requirement" to be delivered in villages and housing in the countryside (Dumfries and Galloway Council, 2014, p.19), where market value for housing is considerably higher than in the urban centres. Like all remote Scottish rural regions, Dumfries and Galloway has a longer history of a relaxed approach to housing development in 'the countryside' as part of rural development policies than authorities in England.

The officially recognised strategic housing market areas for Dumfries and Galloway and Carlisle are separated by the national border. However, there is a significant market interaction between the two areas that results in increased levels of demand on the Scottish side around Gretna and Langholm, to the discomfort of the local authorities:

> *"for some reason or other there was a large housing demand. And you could only really interpret that, if it was real at all, as coming from Carlisle. Well there wasn't the capacity to accommodate it. Just hard to believe."* [ISF040614_Local Government]

This tension between the overall housing strategy for the region and the potential for associated regeneration of the small de-industrialised settlements in this cross-border housing market area suggests, however, that the market interest is in the high value end of the market, rather than in the development that might, for instance, support regeneration and improved affordability.

The National Planning Policy Framework for England (NPPF) (DCLG, 2012) has introduced the relaxation of restrictions on housing in rural areas. In this context, the new Carlisle plan makes a step change in relation to previous planning frameworks, that brings it closer to the planning model in Dumfries and Galloway:

> "*if somebody has a plot in the village or wants to build a bungalow for their parents or for whatever reason, that would be allowed under planning policy – because in the past it has always been very restrictive in the rural areas".[ISF120514_Local Government]*

This could potentially redirect some of the Carlisle market interest in residential development in the Scottish borders back to the English rural area. In Allerdale, there is open policy conflict in relation to three seemingly distinct markets in the north, west and south of the authority area:

> "*The strategy is trying to rebalance the pressure in Cockermouth and the villages and move the demand to the coast, particularly in Workington and Maryport – so they become attractive and you take the pressure off the market town. By doing that you're hopefully regenerating the areas you want – and in the north it's about sustaining those communities, improving access to services….[…] ... It's all about delivery – delivering housing – but ... the bulk of our population are in the more deprived less easy places. The big debate for the housebuilders at the hearing was well are you actually going to be able to deliver this housing because you're putting it into areas of low housing demand, not attractive areas. But you couldn't turn the strategy on its head and put loads of housing in remote rural communities just because those sell. "[ISF130514_Local Government]*

In all three contexts, the development of wind energy in the Solway area, both onshore and offshore, has been hotly contested. Alongside housing, policies for wind turbines have been the main focus of public input to the new plans. In Carlisle district, there is limited scope for wind farms, due to military and communications exclusion zones. However, wind turbines are still a key focus for the public response to consultation :

> "*it's mainly housing that throws up most of the issues, but also renewable energy throws up a lot of issues – and in particular wind turbines – so they are the things that excite people the most." [ISF120514_Local Government]*

This suggests that the significance of the environmental discourses being engaged do not necessarily relate to actual pressures but rather to perceptions about what types of housing

markets are being developed. In this context, the Carlisle plan appears to be effectively positioning itself in relation to the dominant development discourse of a high-tech, globally competitive economy, supported by a competitive housing market that fits the branding of the rural idyll to which key actors in such an economy aspire. Wind farms are not represented as compatible with this discourse. In Carlisle:

> "*We're involved in discussions about the whole of the nuclear new-build, the Energy Coast and all that but other types of renewables are not high on our radar.*"[ISF120514_Local Government]

At the same time, biodiversity, while also "*not high on the agenda*" (ibid), can also be described as a definitive brake on the development of renewable energy because the area is "*so wrapped up in biodiversity designations those sorts of idea have never been progressed...*" (ibid). In this way biodiversity designations are conscripted in a narrative of a rural idyll with which renewable energy development is largely seen as incompatible.

In neighbouring Allerdale, the conflict between rural housing and rural energy development has been a central policy concern, with wind turbine policy requiring major resources in the preparation of the new local plan. This mobilised an alignment between 'community', 'landscape' and 'biodiversity interests', with the Habitats Regulation Assessment being consciously used to underpin other lines of resistance to the development of wind infrastructure, although the energy developments are proposed outside the designated areas themselves. At the heart of the debate has been the connection of internationally protected sites (the Special Protection Areas of the firth) to local ecological processes (bird feeding patterns). The mobilisation of biodiversity arguments to resist renewable energy development thus became a highly explicit focus of the plan-making process:

> "*when we did our Habitats Regulations Assessment, we had debates and real issues with Natural England and our ecologist about bird flight patterns and things like that because although the protected sites (are) along the coast, they obviously go inland for their feeding or whatever. It was the fact that there was some concern about impacts on flights of the birds. There was this dilemma with the Habitats Regs Assessment. You're being promotional but this is the outcome. If you have so many [wind turbines] they're a threat particularly to the geese and the swans – protected European species.*" [ISF130514_Local Government].

The dominant development discourse in Allerdale and Carlisle plans, aligned to the global energy industry (that of the Energy Coast), has been effectively separated from the promotion of local wind energy development. In contrast, in Dumfries and Galloway, policy accommodation of wind energy generation in the landscape is driven by national policy in Scotland, which sets high national renewable energy targets, including 100% electricity demand and 30% overall energy demand to be met by renewables by 2020. The development of the Robin Rigg windfarm in the waters of the Firth immediately to the west of the European Marine Site continues to excite opposition on both shores and there is ongoing opposition to the potential inclusion of a further site to the west of the current installations (BBC, 2014). However, within the local policy framework, conflicts between the Special Protection Areas of the EMS (which include Caerlaverock National Nature Reserve, the core wintering grounds of the internationally significant population of barnacle geese) have not generated the type of discursive alliances seen in the case of Allerdale. In the Dumfries and Galloway interviews, conflict was expressed between tourism and wind energy policy:

> *"People would say no doubt there's a tension between the wind farms and the tourism economy. I think we're slightly written off by the Scottish Government. They would never admit this but I think we're slightly a sacrifice area."* [ISF040614_Local Government]

Brodie (2014) notes that potential for community benefit, community ownership and renewables development by local entrepreneurs are under-developed in Dumfries and Galloway in comparison to other areas of Scotland, arguing, in addition that "there could be a greater place for alternative renewables and for micro-generation, whereby individuals, businesses and communities own small scale energy projects (including small-scale turbines)" (Brodie, 2014, p.5) and highlights possible links with LEADER funding. The Solway, Borders and Eden LEADER programme has, for instance, demonstrated an approach to renewables as a potentially integral part of local economic development by funding a 'Rural Energy Skills Exchange Co-operation Project' supporting trainee 'rural energy ambassadors' (Solway, Border and Eden Local Action Group, 2010; Rose Regeneration, 2014). However such a connection between community development and wind energy development has not yet been implemented through Dumfries and Galloway LEADER.

Alternative development discourses

An alternative development narrative (Figure 5.7) is constructed around processes of local economic regeneration based on resource use and management, alongside commitement to community development. This is predominantly expressed in the work of the Solway Firth Partnership, the Solway AONB unit and LEADER programmes.
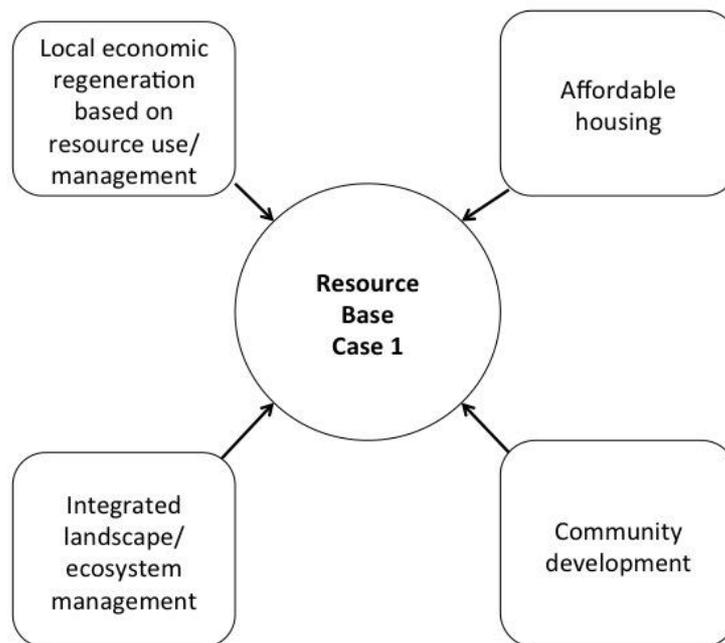
Figure 5.7 'Resource Base' development narrative in case study 1

In drawing up a Solway Firth Strategy in the late 1990s, the Solway Firth Partnership attempted to bring together statutory, business and community interests in order to deliver the objectives of an agreed management plan. However, there was resistance to integration:

> "Some members of the Steering Group felt that, although the Solway Firth European Marine Site has little major industry, there needed to be a better balance of interests with industry being fully represented. The Solway Firth Partnership itself is perceived as lacking better representation from industry and this reflects onto the management of the European marine site. The management scheme is therefore seen by some quarters as coming from a purely ecological and not an environmental (including people) background."(UK Marine SACs Project, 2002, p.8)

While the Solway Firth Partnership secretariat was initially hosted and funded by SNH, the focus on 'integrated development' required changes in approach that were inherently problematic for the remit of environmental regulators, which was ultimately to result in a lack of engagement with development issues. This is illustrated by denial of both development and management issues, such as:

> " *The Solway Firth Partnership officer didn't really find that there was much to update on an annual basis or a biannual basis. It [the estuary] kind of just went and sat quietly somewhere. People had looked at the estuary, considered the issues, they'd thought about what would be needed in terms of management. They'd gathered all the information about it but then it was realised in general, at the time, there wasn't a great deal of activity that was impacting negatively upon the site's features. So it kind of just went on looking after itself if you like." [ISF290514_Environmental Manager]*

From the conservation perspective, the tendency was to close the Pandora's box of integrated management in order to meet the regulatory terms of the newly implemented European designations. It is not surprising therefore that the subsequent development of a management scheme for the second EMS in the Solway, at Luce Bay and Sands, by an SFP officer with strong local fisheries links proved so problematic that it was eventually shelved. In 2010, Marine Scotland took over the role of SNH as SFP's lead funder. Table 5.3 shows the respective commitments made to core funding by members of the steering group. While Allerdale Borough Council, SNH, EA and SEPA were all members of the SFP advisory group they did not commit further funding.

The shifts in the funding regime were anticipated in shifts in the strategic direction of the SFP executive:

> *"when P. took over in 2008 I think it was, maybe 2007, she perceived the role differently to the previous officer and had a much wider outlook in terms of what the partnership should and could be doing. [...] She was very, very good in forging a broader view for the partnership and creating a more effective, stronger position for them and a role with regard to integrating management of European and coastal issues. She had a very strong connection with local industry, the fishing industry."*[ISF290514_Environmental Manager]

Partner	Core Funding (£)
Marine Scotland	38,000
Natural England	10,000
E-On	6,666
Dumfries and Galloway Council	8,000
Cumbria County Council	5,000
Carlisle City Council	750

Table 5.3: Core Funding of Solway Firth Partnership in 2011-2012
Source: Solway Firth Partnership Business Plan 2011

In the face of changing national and cross-border policy frameworks and highly constrained funding, the SFP has focused on carving out is own particular role:

> *"the big three really are conservation/environment, fisheries and renewables, you know they are the big issues that are going to bump up against one another and there's all sorts of other things that go on that we're involved in – environmental education, recreational activities and so on but by and large they're fairly benign by comparison but it's those three big things and how they slot together is the difficult one."* [ISF140514_Partnership Organisation]

As a coastal organisation it has thus positioned itself strategically in the policy territory covered by Marine Scotland, its main funder. There is however an acknowledged tension between delivery of the core funder's objectives and the independence of the partnership:

> *"Marine Scotland are very Edinburgh-focused. They parachute in and disappear again and felt I think originally that because they gave us money that meant they could tell us what to do and whenever they needed something done they could snap their fingers and you'd do it whereas it's not entirely like that, you know. We've got an independent management structure."* [ISF140514_Partnership Organisation]

At the same time, Natural England has focused its interest in the management of the Inner Solway Firth EMS through the technically focused IPENS (Improvement Programme for European Natura Sites) programme. The resulting Site Improvement Plan for its jurisdiction in the Solway indicates limited roles for the Partnership, based on project delivery, within the terms of the EMS objectives, rather than strategic, integrated management (Natural England 2014).

While both SNH and Natural England continue to have responsibility for providing advice on the Inner Solway European Marine Site, there is not clear co-ordination between the two bodies:

> "*I get the impression that quite often the communication's not good between the two sides, just because of logistics and the fact that people are busy*" *[ISF140514_Partnership Organisation]*

> "*I can't get my head round the politics between SNH and Natural England ...*" [ISF010714_Environmental Manager]

Despite early involvement and their ongoing responsibility for integrated river basin management, including coastal waters, neither SEPA nor the Environment Agency contribute core funding to the SFP. SEPA is represented on the advisory group but the Environment Agency *"had so many staff changes that between one meeting and the next whoever had been allocated to follow had already left so there was a gap there..."* [ISF140514_Partnership Organisation].

Comparison with the Morecambe Bay Partnership in the south-west of Cumbria, was raised by interviewees as an interesting comparison with the Solway Firth Partnership. Despite crossing the Lancashire/Cumbria authority boundaries, Morecambe Bay has been recognised as *"geographically, geologically, ecologically and economically distinct"* (ISF070714_Local Government). In this ostensibly 'ecological' context, Cumbria County Council has taken a lead role in establishing the Morecambe Bay Partnership as:

> "*a development agency on a smaller scale than a region, a sub-region, that covers the Morecambe Bay area ... it has charitable status, it's received considerable funding from external sources, HLF, Coastal Communities...landfill tax ...*"(ISF070714_Local Government)

While Morecambe Bay is also a designated European Marine Site, a key role for the Morecambe Bay Partnership is establishing "brand identity" for an area of investment potential both as a tourist/leisure destination associated with a high value residential area on the southern borders of the key development and regeneration area of Barrow-in-Furness and the associated Energy Coast:

> *"A lot of the stuff Morecambe Bay Partnership is doing is, first of all, brand identity, destination – not so much management, but a publicity sort of thing…..raising the profile of the area for amenity, as a destination for leisure but also to some extent: 'listen this is a beautiful environment, there's development opportunities here in terms of employment sites and suchlike, so why not come along'.* [ISF070714_Local Government]

The Arnside and Silverdale AONB has a central role in this promotional approach for the Morecambe Bay Partnership, which contrasts with the case of the Solway Coast AONB and Solway Firth Partnership.

The Solway Coast AONB manager was one of the founder members of the Solway Firth Partnership and joint working continues, with a joint conference being held in 2014. The AONB's management plan reveals a strong emphasis on an interpretation of "sustainable development" as a key management principle, with its "30 year vision" foreseeing:

> "People living and visiting the Solway understand, enjoy and help protect the area through a network of information and trails. People move around through a matrix of quiet lanes and routes by foot and on bikes. Traditional farmsteads and villages are complemented by new eco buildings. Together they support a range of sustainable businesses that draw on and complement the special resources available in the area. Local services and high quality IT infrastructure support a vibrant community. Small scale renewables that complement the area's special qualities are found throughout the area and the peatlands and mudflats provide a natural carbon sink". (Solway Coast AONB, 2009)

The current economic situation for AONB communities is quite different:

> *"You've got to be a helluva entrepreneur to make a living here. The economy is very hand-to-mouth, there's no money for investment"*[ISF130514_Environmental Regulator/Manager]

Both the AONB partnership and the Solway Firth Partnership remain unable to overcome the difficulty of developing an integrated management approach to the estuarine ecosystem in the Solway compared with the approach developed in Morecambe Bay. The Solway Firth Partnership has, however, continued to promote a local resource-based approach to economic development in the area, combining a project management role with a partnership/networking profile. In 2014, it coordinated the development of the Loch Ryan Management Plan, which describes itself as "using marine planning to identify management needs and opportunities for enhanced community amenity and economic regeneration of the surrounding area" (SFP/Dumfries and Galloway Council, 2014, p.1). The work was carried out on behalf of

Dumfries and Galloway Council as part of waterfront regeneration in the region's second largest settlement, Stranraer, following the relocation of the ferry terminal to Cairnryan. The direct link between urban regeneration and the planning of the adjacent marine area is innovative and suggests the potential for redirection of planning processes in the wider Firth.

> "Work at Loch Ryan has provided an opportunity to use emerging marine spatial planning methodology at a relatively small scale to explore its effectiveness in supporting integrated coastal and marine management". (SFP/Dumfries and Galloway Council, 2014)

The final plan document suggests a marketing focus on promotion of local products and leisure potential and enhanced management, directly linked to the promotion of redevelopment opportunities.

A correspondingly broad approach to biodiversity planning played a significant role in the early development of this alternative approach to development in the Solway, with the growing discourse of wildlife as an economic base, compatible with "the mainstays of agriculture and tourism". The Dumfries and Galloway Local Biodiversity Partnership brings together the Council, environmental regulators, agriculture, forestry and other economic interests, as well as non-governmental and community groups, under the auspices of the Local Biodiversity Action Plan. While no longer core-funded by SNH, it is still chaired by SNH and meets in the office of the Scottish Government Rural Payments and Inspections Directorate. The Local Biodiversity Action Plan, which brings together terrestrial, aquatic and marine habitats in a comprehensive management framework, has been used by a number of partner organisations in bidding for funds from a wide variety of sources. This has provided the basis of two relatively high profile initiatives: the annual Dumfries and Galloway Wildlife Festival and the Dumfries and Galloway Environmental Records Centre. The current chair of the

Solway Firth Partnership is a retired unit manager of SEPA who appears to have been closely involved in the early development of the Local Biodiversity Action Plan and now also chairs the South West Inshore Fisheries Group.

Biodiversity Action Plans (BAP) have also been important tools at the county level in Cumbria, for example:

> *"over a period of time we were provided with GiA (Grant in Aid) to deliver those (biodiversity) actions [...] in combination with the County BAP which sat alongside our (biodiversity) plan and there were actions which were complementary"* [ISF010714_Environmental Manager].

There was, however, a hiatus in biodiversity policy around 2010, linked to major Government reorganisation, major cutbacks and repositioning. As a result:

> *"Now well there's not that GiA kicking about but we have habitat targets so we are trying to tie them into flood defence schemes."* [ibid]

In the context of the delivery of the Water Framework and Habitats Directives, there were major changes:

> *"a lot of the command structure's gone and we're left with a load of actions that haven't really been cost benefitted or tested for validity and that's what we're doing at the minute but I mean there are big numbers involved there really are."* [ISF010714_Environmental Manager]

Alongside a new emphasis on combining wetland creation tied into protected areas and flood management, the interviews suggested unresolved and complex issues for water quality in the case study area. In particular, concerns about eutrophication of the waters (and surrounding wetlands) of the inner Firth, identified by interviewees from SEPA, the Environment Agency and AONB unit, were largely dismissed by others:

> *"I would say that a certain amount of eutrophication contributes to the biomass of fauna in the sediment which provides food for all the birds that are a feature of the SPA..[...]..I think in general you say that eutrophication might be an issue for sites such as the Inner Solway but I would say that I can't really - that doesn't register with me as a major issue. Probably partly because the Solway is such a dynamic system with such a huge tidal regime. It doesn't sit there festering if you like, very active. You've constantly got an exchange of fresh incoming water"*
> [ISF290514_Environmental Regulator/Manager]

This suggests a disconnect between nature conservation objectives, with an emphasis on Natura sites, regulated by SNH and Natural England, and the ecological water quality objectives, regulated by EA and SEPA:

> *"They (SEPA) have a role and responsibility to ensure good water quality and so they have an overarching target if you like to meet which will affect estuarine and coastal water quality as well. I would say that we don't have very close connections with that process because that's very much SEPA's role…….[…]…..We don't really have a great deal of connectivity with SEPA in terms of ongoing assessment of conditions and what have you. That's very much their role."*[ISF290514_Environmental Manager]

At the same time, the local plans identify water quality as an important aspect of "sustainable development" and there is considerable reference to sustainable urban drainage (SUDs). However, there appears to also be resistance to the notion that this is necessary for the area:

> *"SUDs is not a big issue here … […] my perspective on this is that they (Scottish Water) see it rather from a Central Belt point of view and would like (Dumfries and Galloway Council) to adopt a stance in relation to it which … would be quite suitable for the Central Belt. It's more developed and the issues are more pressing. To take one example, floodwater going into the sewer system. I don't know whether that's a problem. It's a problem in Glasgow. It's probably a problem in Edinburgh and various other urban areas. Not in Dumfries and Galloway I don't think."* [ISF040614_Local Government].

This assertion is made despite clear statements from SEPA and the EA that toxic urban run-off is an issue for the Solway (Scottish Government/Environment Agency, 2013). While diffuse pollution from farming is recognised as the key cause of eutrophication in the estuary, prospects for addressing this are not immediately hopeful:

> *"Speaking to some of the fisheries people last week, they were saying they've put in buffer strips on the edges of farms with the idea that they would filter out some of the nutrients before they get in the water. They've now discovered on some of the farms where they've done it, the fields are drained and the nutrients are going into the drains and the drains go underneath the buffer strips and into the rivers."* [ISF050614_Partnership Organisation]

Fisheries in the Solway Firth are of particular interest because of their association with local communities and their traditional economy. While, like agriculture, fisheries are outside the planning policy process, the latter has direct implications for local infrastructure and related development prospects. It is striking that despite the significance accorded to the inshore fishing industry centred on Kirkcudbright and Whitehaven (with smaller scale activity in Maryport and Silloth) on the northern and southern Solway respectively, and the fact that management of fish stocks such as salmon appear to be the focus of some of the most intensive cross-border working, there remain significant barriers in developing a sustainable approach to the development of the fisheries economy for either community, through, for example, the development of angling-based tourism, or fisheries infrastructure, inshore habitat management or processing clusters.

According to a report for the Dumfries and Galloway Fisheries Local Action Group, the fishing and seafood sector makes an estimated contribution of some £20 million each year to the economy of the northern Solway, employing around 1000 people (Nautilus Consultants 2013). Kirkcudbright was ranked the tenth largest landing port in the UK in 2012 with shellfish valued at £3.5 million (MMO 2014). However, an interviewee pointed out that the one port in the Scottish Borders, Eyemouth, attracts more funding from the European Fisheries Fund (Axes 1-3) that the whole of Dumfries and Galloway. At the same time, a significant discourse is that the development of a sustainable fishery for the area is peripheral:

> *"there aren't any real major fisheries issues. You know in some areas you have massive issues where you've got very sensitive seabed fauna and flora and you've got scallop dredging going on and that have can have a massive impact and you really do need to get in there and do something about it. Those things don't occur in the Solway because the main issue really that has exercised people has been the cockle fishing……So a very in-depth scientific investigation was done of that to be used as evidence for the Appropriate Assessment which eventually resulted in the cockle fishing being suspended and then a regulating order being put in place to control the level of cockle fishing taking place on the site."* [ISF290514_Environmental Manager]

There is a small-scale commercial brown shrimp fishery in the case study area and there is a strong counterview to the above that the cockle fishery can be a viable concern (Nautilus Consultants, 2013). Wider potential to combine fisheries and tourism activity is also being promoted under the auspices of the SFP:

"In a fair proportion of instances, harbour and jetty facilities are under-used, which tends to encourage shorting in maintenance and repairs, which tends to result in even less use; if more tourism / leisure related business cannot be put through these facilities, then a more radical strategic approach needs to be taken to addressing the issue –with greater direct involvement of local communities" (Nautilus Consultants 2013, p.40)

There is potentially a strong linkage between whole landscape biodiversity management and fisheries management, although this is tempered by the challenge of modelling cause and effects in terms of landscape change and fish productivity:

"a more complex rich habitat ... will produce more fish than a simplified, dredged, straight-and-narrow channel with no tree cover and no in-streams or structure."
[ISF010714_Environmental Manager]

However, mechanisms for such an approach appear to be weak. The dominant discourse for the protection of nature or biodiversity is that of the protection of internationally significant sites. The environmental regulators interviewed in the case study identified the European Habitats Directive as the pre-eminent driver in their work. Similarly Habitats Regulations Appraisal, arising from the Directive, was described as a core challenge in the review of all the local plans. There appears to have been an enhanced focus on involvement of Environment Agency and SEPA officers in the early stages of development plan-making, not least through strategic flood risk appraisal and both agencies have an active role in commenting on drainage, water supply and flood protection for sites, in the context of the Water Framework Directive. However, it has been the Habitats Directive, rather than the Water Framework Directive, which has been the key driver of much of their most recent work.

Discussion

Table 5.4 summarises the key discursive elements identified in local development and management documents and the research interviews above. The case study reveals the complex interaction of industrial development with the development of the area's settlements on both sides of the border. European commitments to wildlife and habitat conservation, and rural development, have significantly contributed to the development of identifiable discourses of integrated development and management.

Dominant discursive elements	Alternative discursive elements
Global energy and defence industries, alongside high –end housing market development as key regional development drivers	Community-led, environmentally-based development partnerships as basis of regional development, with focus on urban and rural regeneration
High housing market demand supports affordable developments;	High housing market demand fuels local affordability problems
High housing market demand is associated with high environmental quality and high service quality; There is a convergence of high housing demand and high tourist demand and this can be managed through design guidance.	Regeneration of de-industrialised settlements is priority in realising environmental and socio-economic sustainability
Low market demand reflects intrinsically poor environmental quality;	Regeneration-led development strategies can transform market demand
'Cumulative' wind energy development as threat to environmental quality and, therefore to housing markets and tourism industry. 'Community' opposition to wind energy.	Opportunities for local, diverse renewable energy-based economies
Protection of internationally significant sites against development is key priority	Emphasis on responsive management ('integrated management') to meet both economic and environmental objectives.
Fisheries as threat to biodiversity	Fisheries as economic opportunity of biodiversity;
Agriculture, forestry and tourism are important management focus for biodiversity;	Agriculture, forestry currently constitute fundamental threats to biodiversity.
High standards of water quality are maintained and managed by environmental regulators	Significant impact of drainage and diffuse pollution on water quality. Water quality is a complex shared responsibility across shared landscapes/seascapes;

Table 5.4 Conflicting discursive elements in the Solway Case Study

Despite the acknowledgement of a coherent socio-ecological identity for the Solway Firth in the setting up and subsequent history of the Solway Firth Partnership, however, the case study chronicles strikingly divergent perspectives on the nature of the area and its future development, which can be understood in terms of the polarities described in chapter 2 (see Box 2.6). There are tensions between a development narrative that incorporates a discourse of globally competitive industrialism, supported by a highly differentiated, competitive housing market (Figure 5.7), on the one hand, and multiple localised aspirations towards alternative discourses of sustainability on the other hand (Figure 5.10). Alternative development narratives challenge boundaries and emphasise participation of marginalised voices in, for example, regeneration initiatives and the prioritisation of affordable housing. Some also challenge or attempt to limit the commodification of nature through, for example, a commons imaginary in localised fisheries management. Both dominant and alternative narratives are discernable on both sides of the Scotland-England border, with the Solway Firth Partnership and LEADER programmes acting as a demonstrable cross-border focus for the latter.

Dominant discursive elements are strongly represented in the emerging development policy frameworks. However, alternative discursive elements appear to be effectively marginalised, despite the emphasis of the planners and planning documents on principles of inclusion and participation. The plans reveal particular conflicts in relation to housing affordability, urban regeneration, renewable energy, fisheries and resource-based development. They present an economy based on globally competitive, high-tech industry as both environmentally and socially benign, supporting the protection and restoration of wildlife and landscape on the one hand and the provision of affordable homes and services for local communities on the other. Housing markets act as the key planning mechanism to translate regional 'access' to the global economy into local development opportunities in the form of 'market demand'. Low market demand is presented as a function of intrinsically lower environmental quality and economic capacity. Thus, the differentiation of housing markets becomes the focus of fundamental conflict, harnessing far-reaching assemblages of knowledge and actors.

At the same time policy narratives aimed at enabling new relationships between local resource use and local economic development through urban/rural regeneration and small-scale innovation are marginalised. The reorganisation and changes in funding of the environmental bodies, Natural England, Scottish Natural Heritage, the Environment Agency and Scottish Environment Protection Agency, appear to have intensified processes of marginalisation of alternative development discourses. Natural England and SNH have both

reduced or withdrawn resources from local partnership and integrated management initiatives, such as that of the Solway Coast AONB management plan, and intensified their resources on the defence of the listed aspects of international designations through the IPENS programme. The work of the EA in relation to integrated catchment management has also been increasingly focused on the IPENS programme, which appears to have dominated investment in management of the inner Firth in recent years. One outcome of this sectoralisation of conservation management appears to be confusion and inertia concerning the nature and objectives of water quality for the Firth and its catchment.

The impacts of the new marine planning bodies, the Marine Management Organisation and Marine Scotland, on the roles of the environmental bodies are most obvious in relation to changes in the funding and policy positioning of the Solway Firth Partnership. In particular, the shift of funding from SNH to Marine Scotland, but not from Natural England to the Marine Management Organisation, is of note. The focus of the Partnership has increasingly moved from an integrated approach with strong links to multiple development voices, as represented in the 1996 *Solway Firth Review*, to a focus on fisheries issues. However, it has consciously maintained an independent focus as noted above and struggles to highlight the needs of small-scale local fisheries development in the face of a national-scale fisheries perspective.

The setting up of Local Nature Partnerships in Cumbria is strongly linked to the promotion of the dominant development discourse, led by the Local Enterprise Partnership and related business networks. The lack of a Solway Nature Partnership comparable to the Morecambe Bay Partnership has already been noted. It could be argued that continuing core funding by Natural England could enable the Solway Firth Partnership to fulfil the role of a Solway Nature Partnership. This highlights not only the issue of coordination for a recognised ecosystem in a cross-border context but also the way in which discourses of economic potential are combined with discourses of environmental significance. Thus, for instance, if the Solway Firth is of comparable ecological significance to Morecambe Bay, what are the barriers to comparable economic development discourses and, indeed, institutions?

The focus of this research is the relationship of constructions of the spatial imaginaries of 'coast' to conflicting development discourses in the case studies. While some of the complexity of development issues related to the interaction between land and sea emerge

from the analysis so far, including the management and conservation of ecosystems and resource-based development, more specific discursive analysis is required to address the research questions and this is developed in detail in Chapter 7. Chapter 6 sets out the development policy conflicts in the second case study area.

Chapter 6: Case Study 2 - The Eastern Borderlands

"At its heart lies the mellow range of the Cheviot Hills and the bright thread of the River Tweed. The region stretches seventy miles from the moorland plateau of Berwickshire to the green pastures of Allendale. To the east, its boundary is the fretted edge of the North Sea coast; to the west, the silent dales of Liddel Water. It encompasses the counties of Berwickshire, Roxburghshire and Northumberland, an area of great natural beauty, rich wild life, with a wealth of archaeological and historical interest that few regions can match and none surpass."
(Talbot White, 1973, p.15)

Introduction

Case Study 2 focuses on the coast of Northumberland and the Scottish Borders, described by Talbot White (1973) as "the Eastern Borderlands" (above) and originally identified as part of this research in relation to the designation of the Berwickshire and North Northumberland European Marine Site (EMS) (Figure 6.1).
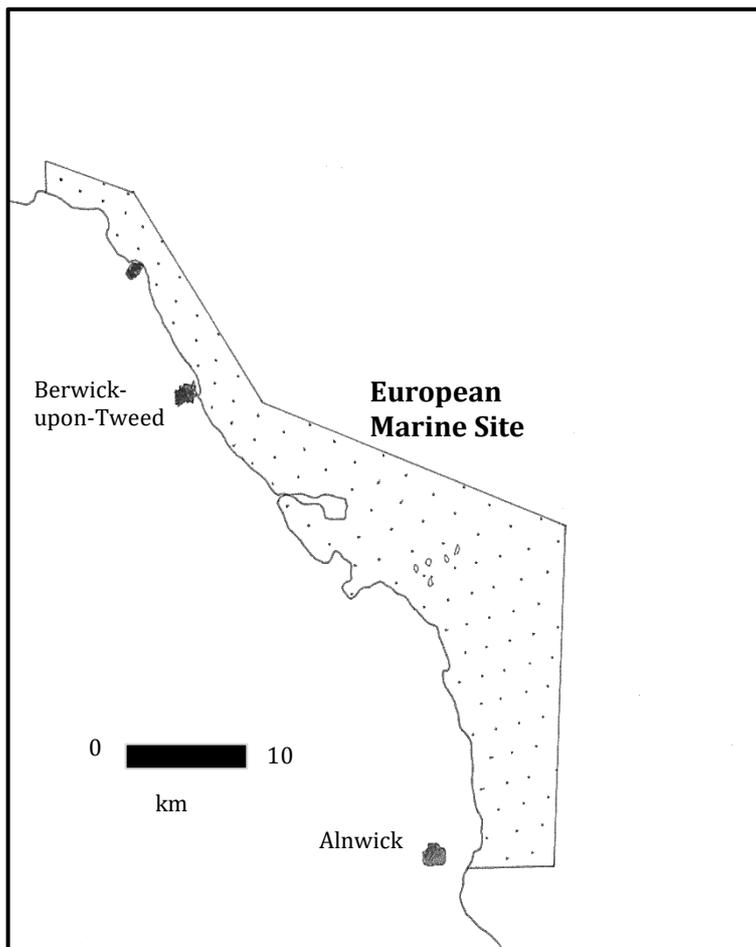

**Figure 6.1: Berwickshire and North Northumberland EMS**
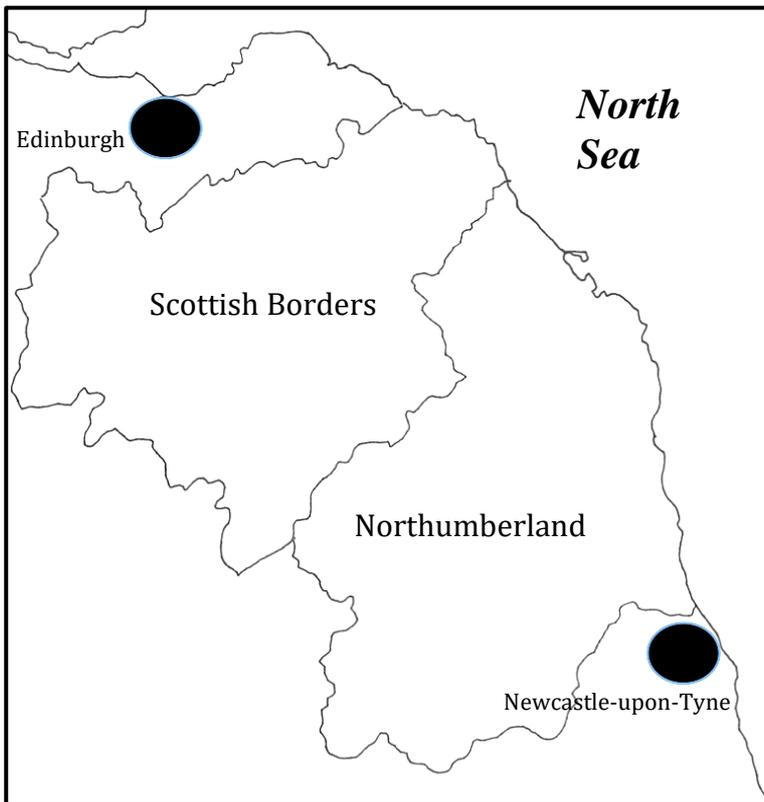
Figure 6.2 Local authority boundaries in Case Study 2

The environmental character of the case study area is reflected in the range and extent of international and national designations. The dominant landscapes in this respect are the upland hills and moorlands of the Cheviots and Lammermuirs, the river valleys, especially those of the Tweed catchment, and the long, sweeping coastline. The designations associated with the latter are complex and extensive. The EMS covers 645 square km of shore and sea, stretching out to 4 nautical miles at its widest extent, and is protected for both marine and intertidal habitats and species, including the grey seal and a number of bird species. It is also contiguous with the North Northumberland Dunes SAC and further SPAs above the high tide mark at St Abbs Head and the Farne Islands. It overlaps the intertidal Northumbria Coast EMS to the south, which is made up of extensive intertidal areas important to a number of bird populations. Offshore habitats between Coquet Island and St Mary's Island in Tyneside were designated as a Marine Conservation Zone in 2016. The main threats to the conservation objectives of the EMS are identified as water pollution and public disturbance (Natural England 2015).

The Berwickshire Coast Area of Great Landscape Value, with its cliffs punctuated by small bays and the sheltered harbours of Eyemouth, St Abbs and Burnmouth, stretches north from

the border. The Eyemouth and St Abbs Voluntary Marine Reserve, which lies within the European Marine Site, covers a particularly rich and striking underwaterscape of cliffs, reefs and caves which attracts thousands of recreational divers to the area annually. The National Trust for Scotland owns and manages the St Abbs Head National Nature Reserve. The River Tweed catchment lies between the Southern Uplands to the north and the Cheviot Hills to the south. It is the sixth largest river basin in Great Britain. Over four-fifths lies in Scotland but its lowermost reaches flow through the rich agricultural borderlands of the 'Merse' and into the sea at Berwick-upon-Tweed, four miles south of the border (Figure 6.3). The catchment supports one of the most important salmon fisheries in the UK and the river and its estuary are both designated Special Areas of Conservation.

Figure 6.3 Berwick-upon-Tweed

Source: Author

Figure 6.4 Northumberland Coast AONB

Source: Author

Figure 6.5 Port of Blyth from Cambois Beach

Source: coxy58/Shutterstock.com

The Northumberland Coast Area of Outstanding Natural Beauty (Figure 6.4) runs from just south of Berwick-Upon-Tweed to Amble-by-the-Sea, whilst the non-statutory North Northumberland Heritage Coast stretches from the border to Druridge Bay. The entire coastline has a distinctive and visually striking architectural and archaeological heritage. These most famously include the bridges and fortifications of Berwick-upon-Tweed, the castles of Lindisfarne and Bamburgh, among others, and a string of small traditional fishing harbours from St Abbs to the Tyne. Calls to extend the AONB to include the Tweed estuary to the north and Druridge Bay in the south (Druridge Bay Partnership 2006) continued to be made during the preparation of the current local plan. South of Druridge Bay, the impact of twentieth century industrial and urban development, associated with the conurbation of south east Northumberland and Tyneside, becomes prominent along the coastline (Figure 6.5).

Development context

Northumberland has a population of 316,000 in an area of 5000 square km, stretching from the North Pennines and the upper reaches of the Tyne in the south, where its settlements form an integral part of the Newcastle conurbation, along the Cheviot hills, to the agricultural "coastal plain" of North Northumberland and the lower reaches of the Tweed Valley. The settlements of the south-east corner, including Ashington, Bedlington, Blyth and Cramlington, and a dense cluster of small linked centres, account for almost half of the population of the county. Outside this conurbation, the county has a number of market towns, as listed in Table 6.1, set within a much more widely dispersed network of villages or service centres.

With a population of 114,000 in an area of 4700 square km, almost a third of the Scottish Borders is classified as "remote rural" (Scottish Borders Council, 2013a). The main population centres of Galashiels and Hawick, and the surrounding market towns and villages of the central Tweed basin grew up around the wool industry and tweed mills, from the early days of water power in the Tweed catchment. Along with Peebles and Innerleithen, they are linked to the Edinburgh housing and employment market areas and this is expected to be significantly strengthened by the re-opening of the passenger rail link between Edinburgh and the Galashiels area in 2015. The eastern half of the region has an especially dispersed settlement structure based on small market and service centres serving an intensively managed rural area, reflecting high quality agricultural land in the lowlands of the Tweed valley and large estates extending into the uplands (Wightman, 1996).

Northumberland *		Scottish Borders**	
Total Population: 316,000 **Total Area: 5000 km²**		**Total Population: 114,000** **Total Area: 4,700 km²**	
Blyth	37,500	Galashiels	15,000
Cramlington	29,500	Hawick	14,500
Ashington	28,000	Peebles	8,500
Bedlington	17,500	Selkirk	6,000
Morpeth	14,000	Kelso	5,500
Berwick-upon-Tweed	13,500	Jedburgh	4,000
Hexham	13,000	Eyemouth	3,500
Ponteland	11,000	Duns	3,000
Prudhoe	11,000		
Alnwick	8,000		
Amble	7,000		
Haltwhistle	4,000		

Table 6.1: Settlements over 3000 population in Northumberland and Scottish Borders

*Northumberland County Council (2013b)

**Scottish Borders Community Planning Partnership (2011)
http://www.ourscottishborders.com/live/towns/populations

The economy of the Eastern Borderlands can be described as peripheral, as indicated in Table 6.2, demonstrating low relative GVA productivity per head, significant lack of business growth, under-representation of growth sectors, and an ageing population (NEIER, 2013; South of Scotland Alliance, 2014). There is a markedly higher proportion of retired residents than the average for Great Britain (although lower than in case study 1). Without policy intervention, the population of the Scottish Borders is projected to grow by only 1% by 2032 (National Records of Scotland, 2014), while that of Northumberland is projected to grow by less than 3% (Northumberland 2014b). These compare with projections for the UK and

Scotland by 2037 of 13% and 9% respectively, and include dramatic declines in the working age populations (ibid). GVA per head for the Scottish Borders is under 80% of the Scottish average (Scottish Borders Council, 2013b). In 2012, Northumberland's GVA was 65% of the English average, contrasting markedly with that of neighbouring Tyneside, which was slightly above the English average (Northumberland County Council, 2014a). However, these area indicators mask striking spatial differences in social and economic character.

	Northumberland	**Scottish Borders**	**Great Britain**
Population	316, 300	113, 200	61,425,700
Unemployment Rate (%)	6.2	5.9	7.9
% economically active	76.6	76.7	76.7
% self-employed	11.0	11.7	9.6
% retired	21.7	21.7	16.5
% No qualifications	9.5	9.9	10.6
NVQ 4 and above	31.4	35.9	32.9
% Gross weekly pay (full time workers) by residence	465.2	449.5	508.0
Tourism-related employee jobs	11.6	8.7	8.2

Table 6.2: Demographic and economic indicators for Northumberland and Scottish Borders
Source: Shaw et al (2013b) p.31

The collapse of the British textiles industry in the face of global competition has been reflected in the decline of manufacturing in the Scottish Borders. However, food processing, tourism, textiles and renewable energy remain important economic sectors for the area (South

of Scotland Alliance 2007). In central Northumberland, the "traditional market towns" of Morpeth and Hexham, along with the dormitory towns of Prudhoe and Ponteland, are important commuting centres for Newcastle, with the County's higher earning and more skilled residents tending to commute out of the County for work (NCC, 2014a, p.14). Indeed average household incomes in such locations are among the highest in England (NCC, 2014b). In contrast, the conurbation in south east Northumberland is associated with an industrial and post-industrial landscape and significant elements of economic and social deprivation, including an especially weak housing market.

On and near the coast, the settlements of Blyth, Ashington and Bedlington grew up around the coal mines and associated iron industries that characterised the economy of the wider North East in the nineteenth and twentieth centuries. In 1961 Blyth Port shipped out six million tonnes of coal and claimed to be "the largest coal-shipping port in Europe" (Talbot White, 1973, p.173). It currently handles shipping of around a million tonnes per year. While the last deep coal mine in North East England, the Ellington Colliery near Ashington, was closed in 2005, open cast coal mining has continued in the area. The new town of Cramlington was built in the 1960s and 1970s. In combination with a network of smaller centres, villages and housing estates, the four main towns form a sprawling conurbation on the edge of the Newcastle-Gateshead city region. The Blyth Estuary Renewable Energy Zone (BEREZ) incorporates a number of industrial sites, including the National Renewable Energy Centre (NaREC) which is a technologies testing centre, the existing deep water port facilities and the former site of the Blyth power station, which remains safeguarded for a "clean coal-fired power station" (NCC 2014b), adjacent to the North East Enterprise Zone.

Berwick-upon-Tweed (population 11,500), sitting less than two miles from the border, at the mouth of the River Tweed, has remained a significant, if declining, cross-border employment and service centre for both Berwickshire (in Scotland) and North Northumberland, with malting, food processing and harbour transport continuing to be significant elements of its economy. Its commercial port handles bulk goods such as fertiliser, grain and construction materials (< 100,000 tonnes per annum). Six miles north of the border, Eyemouth has the largest fishing harbour between Aberdeen and the Tyne, while a string of small harbours along the Berwickshire and Northumberland coasts continue to support a traditional, small-scale inshore fishery.

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Governance of Development

In describing the planning authorities for the area, this section highlights the strong development policy influences on the Scottish Borders of strategic planning for Edinburgh and South East Scotland and, increasingly, on Northumberland, of the North East Local Enterprise Partnership. Both areas have been working to develop coherent strategic plans in the face of shifting regional policy contexts and, in the case of Northumberland, the bringing together of six former planning authorities into a unitary arrangement in 2009. The development and environmental institutional actors for each authority area are described along with innovative cross-border institutions which give insights into alternative development narratives linked to the area's environmental features.

Scottish Borders

The Scottish Borders Council has been a unitary authority since 1996. A Consolidated Local Plan was adopted in 2010 and the proposed replacement Local Development Plan is expected to be adopted in 2016. This has been prepared in the context of a strategic framework given by the South East Scotland Strategic Development Plan Authority, SESplan, a partnership of six Member Authorities responsible for the preparation and maintenance of an up-to-date Strategic Development Plan (SDP) for the Edinburgh city region. The first SDP was approved by Scottish Ministers in 2013. It identifies its East Coast sub-region, stretching along the eastern shores of the Firth of Forth and southwards to the border with England as "focused on the key transport routes of the A1 and the East Coast Main Line" (SESplan, 2013, p.20). The Scottish Borders local authority area crosses both the East Coast and the Midlothian/Borders sub-regions, with the latter having particularly strong commuting links to Edinburgh, while the former is characterised in terms of the "distance from *the Regional Core* in comparison to better connected locations to the west" (ibid, p20, italics added). As a consequence, the area "is not an identified location for large scale economic development rather its economy is based on tourism, the service sector, agriculture and other rural industries" (ibid, p.20). While the key service centre for the East Coast sub-region within the Scottish Borders is arguably Berwick-upon-Tweed, this is not expressed in policy terms by authorities on either side of the border.

The *Scottish Borders Economic Strategy 2023* was published in 2013 by Scottish Borders Council on behalf of the area's Community Planning Partnership, which brings together the Council, Scottish Enterprise and a range of public, social and private sector partners. The

Council has taken a lead role in managing both the LEADER programme for the area and the European Fisheries Fund, with a programme of regeneration in Eyemouth based on the latter.

The framework of environmental regulation for the Scottish Borders is largely delivered through the planning authority, Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and cross-compliance arrangements for rural development funding (including agricultural payments and LEADER). SNH and SEPA have been subject to ongoing budgetary cuts. SNH have cut back in particular on grant aid for conservation management in both designated site and wider countryside, focusing its efforts on regulatory protection of the former. At the same time, there are a number of innovative strategic development and delivery arrangements combining environmental protection and restoration and development objectives. These include the Southern Uplands Partnership (referred to in Case study 1) and the Tweed Forum (described below).

Northumberland

Northumberland County Council became a unitary authority in 2009, amalgamating the planning responsibilities of Alnwick, Berwick-upon-Tweed, Blyth Valley, Castle Morpeth, Tynedale and Wansbeck Councils. Since then it has relied on a selection of saved development policies while preparing the first Northumberland-wide Local Plan. Meanwhile the strategic framework of the North East Regional Spatial Strategy has been abolished as part of a new Central Government's dismantling of regional government in England. In 2014, the North East Combined Authority was legally constituted to bring together the seven local authorities of Northumberland, Newcastle, North Tyneside, Gateshead, South Tyneside, Sunderland and Durham to deliver economic strategy in partnership with the North East Local Enterprise Partnership (NELEP), with particular emphasis on transport, regeneration and skills functions. Unlike SESplan, however, the combined authority's strategic planning powers are limited to the local planning functions of its constituent members and its strategic decision-making relies on seeking a cooperative approach within the context of NELEP's Strategic Economic Plan (NELEP, 2014). The draft Northumberland Economic Strategy (NCC, 2014a) sets out a spatial framework for investment within this context. Overall the development framework for Northumberland aims at population increase of over 10% by 2031.

The Northumberland AONB is managed through the County Council, under the leadership of the County Ecologist who works with a Partnership Board in developing and delivering the

AONB Management Strategy. The County Ecologist also provides line management for the Berwickshire and North Northumberland European Marine Site (EMS) project officer, who administers the cross-border work of the EMS Management Partnership. The Environment Agency and Natural England play lead advisory roles in relation to local environmental protection and sit on both partnership bodies. As noted in Case Study 1, both organisations have been subject to major reorganisation and budget cuts during the plan preparation process. Again, a key issue for local authority officers has been the loss of direct face-to-face contact with Natural England advisors on strategic planning issues. Much greater emphasis is placed on written guidance and statutory guidelines, requiring complex issues to be addressed only at late stages of the local policy process. At the same time, there is greater pressure placed on local authority officers to provide ecological and landscape advice. Two Local Nature Partnerships (LNPs) have been launched: the Northern Upland Chain LNP comprising Northumberland National Park, North Pennines AONB, Nidderdale AONB and the Coastal LNP. These remain in the early stages of development. There are also two proposed Nature Improvement Areas relevant to Northumberland: the Northumberland Coalfield NIA and the Border Uplands NIA. The former is of most direct relevance to South East Northumberland and extends into the Newcastle and North Tyneside jurisdictions, focusing on restoration opportunities arising from mining activity.

Berwick Harbour Commission	North Sunderland Harbour Commission
Environment Agency	Northern Lighthouse Board
Eyemouth Harbour Trust	Northumberland County Council
English Heritage	Northumberland IFCA
Marine Management Organisation	Northumberland Wildlife Trust
Marine Scotland	River Tweed Commission
Maritime and Coastguard Agency	Scottish Borders Council
Ministry of Defence	Scottish Environment Protection Agency
National Trust	Scottish Natural Heritage
National Trust for Scotland	St. Abbs Harbour Trust
Natural England	Trinity House

Box 6.1 Berwickshire and North Northumberland Coast EMS Management Group Members
Source: Berwickshire and North Northumberland Coast EMS Management Group (2014)

Cross-border institutions

The two cross-border institutions described here are based on governance initiatives designed to deliver ecosystem management for the Tweed river catchment and the Berwickshire and North Northumberland Coast. These have developed and incorporated arrangements to meet the needs of environmental regulation, particularly the requirements of the EC Water Framework Directive and Habitats Directive. In both cases, however, they highlight the links between development, resource use, management and restoration.

Berwickshire and North Northumberland Coast EMS Management Group

Funding to pilot the production of an integrated Management Scheme for the Berwickshire and North Northumberland candidate SAC, as one of a number of pilots, including the Solway Firth, was secured through the EU Life programme in 1997. This allowed the employment of a Project Officer based at the offices of Northumberland County Council. A Management Group comprising representation from a broad range of organisations (Box 6.1) was set up to work with the Project Officer to coordinate the production of the Management Scheme. The first Management Scheme for the Berwickshire and North Northumberland European Marine Site was agreed and published in 2000 (English Nature/Scottish Natural Heritage, 2000).

The Tweed Forum

The Tweed Forum is a significant influence on the governance and regulation of rural development in the Scottish Borders jurisdiction (the Tweed catchment in Scotland and the catchment of the River Eye), crossing into the valley and headwaters of the River Till in Northumberland County and Northumberland National Park. Set up as an informal liaison group, the Forum applied for Heritage Lottery funding, in the late '90s, for a natural and cultural heritage programme called the Tweed River Heritage Project. The resulting programme of projects involved an expenditure of around £9 million, 60 partners and over 50 different projects over seven years. It enabled the forum to be staffed and an officer was employed to develop an integrated management plan in consultation with the Forum members and general public. The first version of the plan was published in 2002. Following the enactment of the Water Framework Directive in English and Scottish legislation in 2003, the Tweed Forum took on the role of the advisory group for the Tweed catchment and worked in partnership with SEPA to achieve integration. Those aspects of the delivery plan of the

Tweed Forum which are recognised as delivering Water Framework Directive targets are annually incorporated into SEPA's official "programme of measures" for the Tweed.

Conflicting development discourses

Sandwiched between Edinburgh, Newcastle, the Northumberland National Park and extensive, sparsely populated and often remote hinterlands, the development potential of this area has long been represented as a struggle between a purely service role for the dominant city regions and attempts to generate alternative local development narratives, as exemplified by the observation by the Scottish Development Department (1968) that

> "Unless the Borders can generate a sufficient pull into itself to offset these strong pulls north and south to lusher surrounds, it may well fall apart, to find its future simply as a pastoral enclave in an industrial world or as the playground and retreat for its wealthier neighbours....a sort of huge holiday camp for Edinburgh, Glasgow and Newcastle." (quoted in Talbot White, 1973, p.179)

This section attempts to set to distinguish the current emergence of such narratives.

Dominant development discourses

In this context, the wider strategic development frameworks for both the Scottish Borders and Northumberland continue to emphasise their roles in relation to adjacent city regions. For the Scottish Borders:

> "The Scottish Borders operates within a wider sphere of economic activity – the Edinburgh-Newcastle-Carlisle triangle. The area is at 'the centre of things', its roads
>
> enabling relatively easy access to these cities, good rail links on the East and West Coast Main Lines (from Berwick-Upon-Tweed and Carlisle respectively) and the Scottish Borders Railway linking to Edinburgh Waverley by 2015. Similarly it is within easy distance of major airports and the network of international destinations they offer." (Scottish Borders Council, 2013b, p.9)

For Northumberland:

> "At the heart of the northern economy, Northumberland sits between the competitive city economies of Newcastle and Edinburgh with good links into external markets via the region's sea ports, Newcastle Airport and national strategic road network. The NELEP and NECA area hosts considerable assets which Northumberland accesses and forms a part of. The region has:

- a population of almost two million

- an economy worth around £30bn

- over 750,000 employees

- four universities with key research strengths

- almost 50,000 active businesses"

(NCC, 2014a, p.8)

Despite both areas looking to Edinburgh and Newcastle as their economic drivers, it is striking how little interaction there is between their respective strategic frameworks. Indeed, there is minimal reference to economic co-ordination across the border in development plans and strategies for both areas. However, they share a strong emphasis on reshaping demographic and economic trends through housing policy. In the Scottish Borders, the development framework aims at population increase of over 15% by 2032, with an increase in households of 23% (some 12,000 new homes). The main aspiration for growth is aimed at the core settlements of the mid Tweed catchment, Galashiels, Melrose, St Boswells, Kelso and Hawick, with the reopening of the rail connection to Edinburgh from Tweedbank, in 2015, critical to both enhanced commuting and tourism links. In the long term, the Council also has aspirations to see the extension of the Borders Railway to Hawick and Carlisle and supports the construction of a new station on the East Coast Line at Reston, near Eyemouth which could transform commuting and tourism links into Edinburgh from the Eastern SDA.

The Northumberland Economic Strategy stresses the economic centrality of the area's commuter housing markets:

"Northumberland's commuter role is vital and something this strategy embraces as part of our changing role in the wider region…Much more than other parts of the North East, Northumberland provides key workers vital for the success and growth of the North East economy, *including senior managers and professionals….[]…Northumberland's increasing commuter role* has supported diverse and resilient communities whose traditional industries declined in previous years." (NCC, 2014a, pp.9 and 18, italics added).

The rationale given is that "Northumberland's natural beauty and outstanding quality of life attract talented people" (ibid, p.19). In this context, it openly acknowledges the tension between employment development to meet local regeneration needs and the high value commuter draw of the county:

"The county must address lagging performance (in employment creation) *but also ensure our interdependency with the (North East) region continues to be successful and also improves.*" (ibid p.21, italics added)

The North East LEP clearly sets out its favoured resolution:

"The North East needs to increase private sector jobs and also jobs which bring income into the LEP area. This focus on manufacturing and those parts of the service industry serving national and international markets is the key to sustainable economic growth. The Combined Authority has a major role to play in addressing housing related issues in the North East, moving to a market led approach" (NELEP, 2014, pp.6 and 9)

The 'rural idyll', as discussed in case study 1, appears to play a major part in such a market-led approach:

"Compared to the south east and London, the north east offers very good value for money, and the market towns and smaller villages are very attractive for new arrivals." (NELEP, 2014, p.32).

The local development plan reflects this approach:

"Northumberland's beautiful and historic market towns and its attractive rural landscape are therefore key opportunities to attract mobile, highly skilled migrants.."(p14) and "Northumberland's market towns will be key drivers of economic activity."(NCC, 2014b, p.28).

Meanwhile, Northumberland has a net outflow of almost 23,500 commuters, mainly to the Newcastle area (NCC, 2014b, p.13). The average wage of Northumberland residents is 9% higher than the average wage in Northumberland based jobs, with resident pay being one of the highest in the NELEP area, and workplace pay nearly the lowest. Thus, the Northumberland labour market in terms of educational attainment, skills, earnings, and forms of employment is geographically and socio-economically split.

The uneven competitiveness of parts of the Northumberland housing market is illustrated by comparison with markets in County Durham, which have a similar mix of urban and rural areas (NCC 2014c). Prices for every house type are higher in Northumberland, most markedly for detached properties where prices are 47.5% higher, comparable with Newcastle, and higher than North Tyneside. These high prices, and a high volume of sales for detached

properties, indicate relatively strong demand for large low density homes in the county. At the same time, prices for the lower quartile of the market in Northumberland, including terraced properties and flats, are markedly lower in Northumberland than Newcastle and North Tyneside. The average price for a flat in Newcastle is 28% higher than Northumberland; for a terraced property in Newcastle the price is 24% higher, suggesting a deep disconnect between their urban housing markets (ibid).

Designated Delivery Areas	% Northumberland Population	Total Housing Completions 2004-2014	Draft Plan Housing Targets 2011-2031	Change in Delivery Rate
North	17	2448 (30%)	3900	-20
Central	25	1576 (19%)	5680	+80
South East	52	3551 (44%)	12540	+77
West	6	539 (7%)	1400	+30
Northumberland	100	8114	23520	+45

Table 6.3 Population, housing completions and future housing targets for Northumberland Delivery Areas
 Source: NCC, 2014c, pp. 22 and 102

In the context of this polarization between 'urban' and 'rural' markets, Table 6.3 lists the 'delivery areas' designated in the local development plan. It shows that despite over half of the population living in the south east of the county, only 44% of housing completions have taken place there in the last decade. Development in the Central delivery area has been constrained by green belt designation and exhibits the highest mean price of £220,913, over 40% higher than in the neighbouring conurbation of the South East HMA. Unlike the Central delivery area, the close proximity to Newcastle has not driven up prices in the South East. In contrast, housing completions in the North are 30% of the total compared with a population of 17% of the total. The overall mean price for housing in the North delivery area is £200,109, with lower quartile house prices 60% higher than that in the South East, suggesting the

additional influence of the second home and holiday market. This development is strikingly 'rural':

"While more than half of sales analysed in the Central HMA were in the main towns of Hexham, Morpeth and Prudhoe, in the North HMA, a large proportion of sales were in the service centres along the coast and in the upland rural areas, with relatively few in the main towns of Alnwick and Berwick-upon-Tweed." (NCC 2014c, p.71)

The four "Delivery Areas' are ostensibly based on

- areas which are similar in terms of their social, economic, and cultural characteristics – not just defined by housing markets;
- the roles and relationship between towns and villages across Northumberland; and
- the interaction of places with adjoining areas, particularly Tyneside and Scotland.

Proposals for the definition of a "Coastal" Delivery Area were considered but seemingly rejected at an early stage (personal communication by NCC planner at Consultation Event 2013). The spatial delineation of the Delivery Areas is particularly interesting in relation to the overall consideration of the roles of coastal imaginaries to be discussed in chapter 7. Certainly, there are "marked variations in market conditions *within* the delivery areas" (NCC 2014b, p.88), suggesting that their designation is based on complex and contested constructions of the housing markets involved. This is reflected in responses to public consultation on the Core Strategy Preferred Options document in 2012-2013. These point at considerable tensions arising from the housing growth agenda, with "a high level of objection from some local communities that the level of housing proposed was too high, based on aspiration rather than need" (NCC, 2014b, p.74) At the same time, the development industry was arguing that they should be more aspirational (ibid). The latter was particularly concerned by the balance of allocation given to the South East where the market was weak in comparison to the Central and Northern delivery areas. In response, the Council reduced the original allocation to the South East Northumberland area, while allocation to Morpeth was increased. While there was a reduction in rural housing numbers for Central Delivery Area, reflecting local concerns about Green Belt development, the final draft plan reveals a near doubling of rural housing in North Northumberland so that projected levels of house-build per annum in the North Northumberland rural area are actually higher than for either of its main towns, Alnwick and Berwick (NCC 2014b).

The Northumberland Coast AONB has especially high levels of second home and holiday home accommodation. While Berwick has underprovided despite an abundance of housing sites with planning permission, delivery elsewhere in the former Berwick-upon-Tweed Borough has exceeded past policy "particularly in the coastal zone." (NCC, 2014b, pp.23-24). The Local Plan acknowledges concentrations of second and holiday homes in North Northumberland , "particularly the coastal parishes of Beadnell and North Sunderland" in the AONB (NCC, 2014b, p.55) and recognises that not only can such concentrations of holiday accommodation have a negative impact on local facilities and school provision, but that such demand "has made many of the smaller properties unaffordable to the local population"(ibid).

As in Northumberland, aspirations for local economic resilience and recovery in the Scottish Borders also seek to address the steeply declining working-age proportion of the population. Its planning framework aims for an increase in population of over 15% (16,800), and an additional 12,000 households by 2032 (Scottish Borders Council, 2013a). However, the most up-to-date Housing Needs and Demand Assessment for SESPlan (SESPlan, 2015), sets out a number of scenarios for total housing need and demand as detailed in Table 6.4. This describes a "Strong Economic Growth" scenario as "purely aspirational" while the others are "more realistic", ranging between a need/demand for new units of between 3,800 and 5,400 by 2032.

Overall the focus of planning policy is on serving commuting connections from the central Scottish Borders to the business and employment markets of the Central Belt. As Policy ED1 of the Draft Local Development Plan states frankly, this "recognises the financial difficulty in bringing forward new business and industrial land in a rural area such as the Borders where, in the provision of business premises, there is a market failure situation" (Scottish Borders Council, 2013, p.33).

Economic Scenario	Total Housing Need and Demand
Steady Recovery 2	3,768
Wealth Distribution 2	5,407
Strong Economic Growth 2	7,082

Table 6.4: SESPlan Scenarios for Housing Need and Demand 2012-2032
Source: SESPlan, 2015, p.156
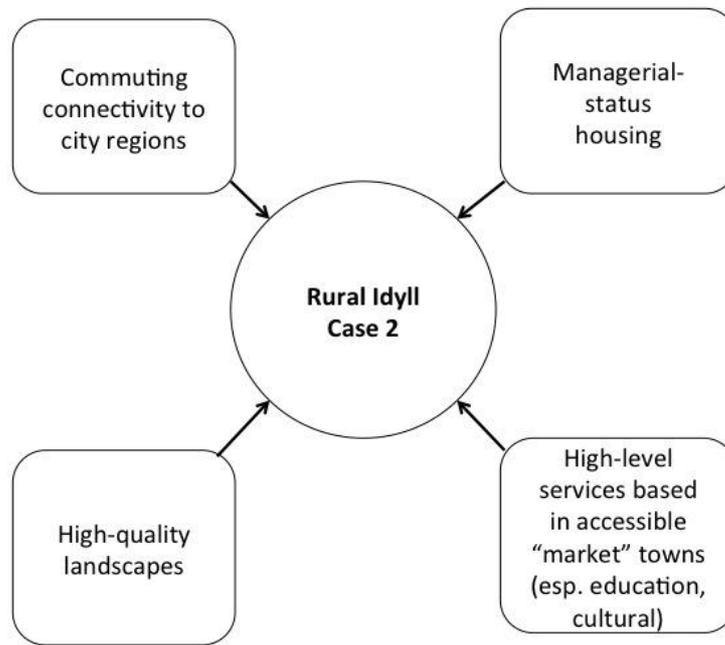
Figure 6.6 'Rural Idyll' development narrative in case study 2

Figure 6.6 summarises the dominant development narrative found in both local authority jurisdictions in the case study area. This appears as another variant of the 'rural idyll' development discourse identified in case study 1. In case study 2, the dominant economic drivers are more clearly located in the adjacent city regions of Edinburgh and Newcastle-upon-Tyne and commuting connectivity is key.

Alternative development discourses

The dominant development discourse mobilises perceptions of the case study area's quintessential "rurality", incorporating "rural towns and villages" as key to the promotion of growth in the area's higher quartile housing markets as its fundamental economic driver. Another development discourse however, is particularly associated with the industrial settlements of the coast and coastal plain in south east Northumberland, as highlighted by the specific focus of the Northumberland Economic Strategy on the potential of the global energy sectors as the basis of key opportunities for major investment for local economic growth (NCC, 2014a, p.32). These include the renewable and low carbon energy, advanced manufacturing and offshore sectors in the Blyth estuary area, on the one hand, and for short to medium term extraction of open cast coal. The Local Plan also identifies "potential for

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underground coal gasification off the South East Northumberland coast which could result in proposals for onshore infrastructure" (NCC, 2014b, p.203).

Figure 6.7 Aerial View of Northumberlandia

(Source: The Land Trust)

As noted above, the mining and transport of coal formed the basis of the historical development of the urban settlements and infrastructure of South East Northumberland and the more recent development of open-cast mining continues to be significant south of Amble, around Morpeth and Ashington, Seaton Delaval, Blyth, Cramlington, Ponteland and Stannington. The Local Plan supports open-cast coal mining:

> "where it can be demonstrated by the applicant that it is environmentally acceptable, or can be made so by planning conditions or obligations; or if not, if provides national, local or community benefits which clearly outweigh the likely impacts" (Policy 51).

Among the issues highlighted for assessment is the potential for new proposals for extraction to result in the restoration of already degraded landscapes and ecosystems. This moves the focus away from the more immediately obvious destructive impacts of open-cast mining on the environment to a new strategic paradigm for the relationship between environmental quality and economic development in Northumberland. In this context:

"the main issues revolve around industry and trying to reconcile the various protective designations on the coast with development aspirations, particularly round the Blyth estuary especially as at the moment we now have Enterprise Zones around the Blyth estuary but at the same time the Northumberland Shore SSSI comes right into that estuary." [BNN060214_Local Government]

As a result, the designation of the Enterprise Zone has involved the use of over twenty hectares of Council-owned farmland for wetland creation.

This use of 'biodiversity offsetting' and habitat creation linked directly to development is part of an emerging discourse that is dramatically encapsulated in the creation of "Northumberlandia" on the Blagdon estate (Figure 6.8). As Box 6.2 details, this 100 feet high land sculpture overlooking an open cast coal mine, between Stannington and Cramlington is presented in terms of a combination of kudos on a global stage ("designed by world renowned architect and artist Charles Jencks"), social inclusion ("community park, with free access") and traditional "family" values, with a celebration of "big machinery". The mine itself is presented as the driver of both social and ecological goals, enabling a new and improved landscape with strengthened "traditional" attachments.

It is in the context of such a discourse that the Economic Strategy notes "a considerable interdependency" between "the land based sector and areas of development such as tourism, knowledge based services and energy" (Northumberland County Council, 2014a, p.14). It identifies one of the key strategic opportunities for the area as being the "development of an outdoor tourism and leisure destination based around the former Stobswood, Maidens Hall and Steadsburn surface coal mining sites" which lie a few kilometres west of Druridge Bay (ibid, p.19). In 2014, detailed proposals for an adventure park, including a 50-acre lake, snow slopes, gorges and canyons, mountain bike trails, off road vehicle courses, an adventure playground, 100 camping pods and 400 holiday homes, were submitted to the Council by a private developer. At the same time, on the wider site, Peel Energy received permission to develop a 9-turbine wind farm. In this context, large-scale "rural" tourism, mine restoration, habitat creation and wind energy development are brought together in a distinctive discursive assemblage.

"Northumberlandia has been designed by world renowned architect and artist Charles Jencks."

"The sculpture is set in 46 acres of community park, with free access and 4 miles of footpaths."

"Northumberlandia is a living part of the countryside that will mature over time and change with the seasons. What you see when you visit is only the start of something that will evolve through generations."

"An additional point of interest is that you can see into Shotton Surface Mine from the top of Northumberlandia, a particular attraction for fans of big machinery."

"Blagdon Estate is a business that includes farms, woodland, residential and commercial properties and has been in the same family ownership since 1700. The estate also plays host to clubs, charities and other voluntary organisations. Surface coal mines like Shotton have operated on Blagdon almost continuously since 1943."

Box 6.2 Northumberlandia: Extracts from publicity leaflet
Source: the Land Trust, Banks Group and Blagdon Estate (2012)

Wind energy, however, was comparable to housing in terms of the intensity of debate surrounding the development plan. The Local Plan policy on renewable energy stresses the importance of considering "the effects on long and medium range views from and to iconic landscapes and heritages and the outlooks for heritage assets and "the potential impact of wind farm development on the tourism economy in Northumberland" (NCC, 2014b, pp.216-217). At risk is "Northumberland's landscape, natural and historic environment and tranquillity" as "a key draw for visitors"(ibid). However, research on the effects of onshore wind farms on tourism, commissioned by the Council, concluded that there was no evidence to suggest that the development of wind farms has either a significant negative or positive impact on tourism, although it conceded that some landscapes may be more sensitive to wind farm developments than others and that development "could have localised negative effects in relation to tourism". It therefore recommended the need for developments to be "well-sited in relation to the landscape setting and the tourism economy context of the locality" (ibid).

Given the national emphasis on wind energy expansion in Scotland, it is not surprising to find that Scottish Borders policy on wind energy is considerably more developed and detailed than that of Northumberland (Scottish Borders Council 2013, pp.62-64). It seeks to reconcile national energy policy's "particular challenge to the continued attractiveness of the area for residents, tourists and visitors … which if not carefully managed and controlled, could have an adverse impact on this fundamental attribute" (ibid). The policy framework considers not only location but also the number, size, type and cumulative impact of turbines, in the context of detailed landscape capacity assessments. However, the overall development push comes from larger scale proposals, while local efforts to promote community-scale renewable energy through a Borders Energy Agency have not been able to attract any funding (Southern Uplands Partnership, 2015, p.5).

However, there is an interesting relationship between the development work of the Tweed Forum and the community trust funding generated by wind farm developments. The work of the Tweed Forum has been influential in Scottish Government policy on land use and rural development policy. In these respects it is seen as offering a model strategic stakeholder-led deliverer of key statutory targets, but with a 'community feel'. It is currently working on behalf of Scottish Borders Council to lead a Scottish pilot as part of the Scottish Government's Land Use Strategy. The emphasis is on "working together, seizing opportunities, building consensus, negotiating trade-offs and seeking win-win situations" (Tweed Forum, 2013, p.2). The Forum's literature talks about "getting the right measure, in the right place, at the right scale." It promotes its "ecosystem services approach" as "one that seeks to achieve greater balance in the services and goods the natural environment provides". (Tweed Forum, 2013, p.1)

From the outset, the Forum has made a conscious link between cultural and natural heritage management on the one hand and social and economic objectives on the other.

> *"We've broadened our scope really because we recognise the river is just a function of the land - the land's just a function of the people and people just react to finances and politics and we get involved in that as well."* [BNNC300114_Partnership Organisation]

While the socio-economic objectives of the Tweed Forum community may at times sit uneasily with the environmental objectives of the regulators, the Forum has managed to navigate and create new opportunities for linking environmental management with economic development in the Tweed catchment, bridging and developing institutional space between

the local Council, development agencies, government departments, regulators and networks of local interests. It indicates potential to develop interactive, collaborative engagement between local economic interests and environmental regulators.
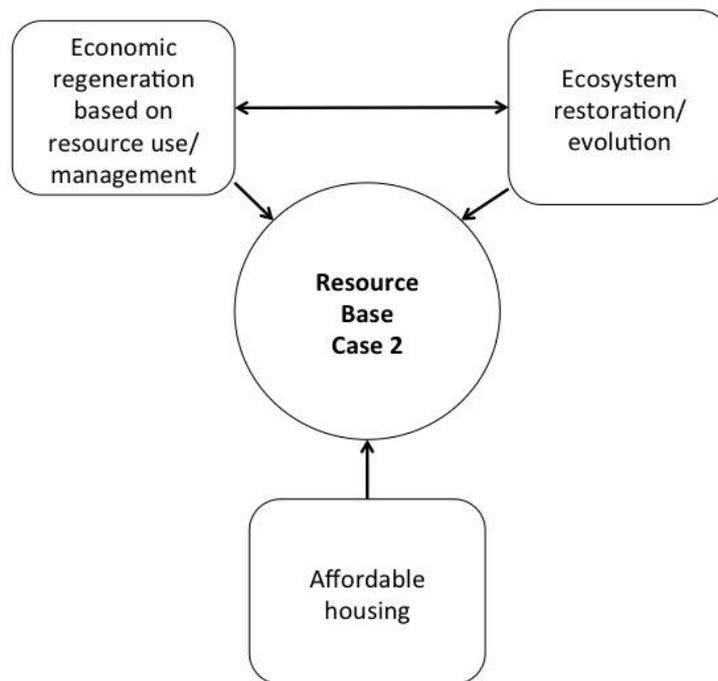

Figure 6.8 'Resource Base' development narrative in case study 2

Figure 6.8 aims to capture the main elements of an alternative development narrative identified in this case study area. As in case study 1, the key economic driver identified is that of regeneration (both urban and rural) based on resource use or management. Themes of ecosystem restoration and evolution, rather than ecosystem protection are significant to the construction of this narrative. They function either to mitigate the impacts of resource use or to form the basis of new tourist, service or other economic activity. In this context regeneration priorities for settlements are linked to the regeneration of struggling housing markets and local affordability. The study did not, however, detect community development as a significant theme in alternative development discourse in the way in which it emerged in case study 1. This may reflect differences in institutional relationships between local authorities and community-led organisations in the two cases.

A potentially significant additional theme emerging from case study 2 was that of marked disconnections between the development and management of the River Tweed and its catchment, on the one hand, and the management of its estuary and the wider coastal system, on the other, despite acceptance of the interdependence of ecosystem approaches. Despite high levels of commitment to integrated management on the part of the Tweed Forum, interviewees remarked consistently that there was a marked disconnect between governance arrangements for the river and the coast, despite shared acknowledgement that management of the river catchment would be expected to directly impact the marine environment and there is a strong technical appreciation that river catchment management is integral to coastal management.

Thus, integration of the Tweed Forum's policy approach with coastal management appears problematic. The mechanisms for realising cooperation with coastal management have not been developed at the same pace at which they have been realised for other interests in the landward catchment. Given that the first integrated catchment management plan for the Tweed and the first integrated coastal management plan for Berwickshire and North Northumberland were being developed at the same time, there appears to have been an opportunity to develop strong inter-linkages. However, the two processes have tended to carve out parallel, weakly linked operational spaces which are having to re-explore opportunities for joint working.

The new EMS Management Scheme's concerns about eutrophication in Budle and Lindisfarne Bays, in relation to both the EMS and designated Shellfish Water do not appear as pressing issues in wider regulatory or development plans. The mud and sandflat features in Budle Bay in the Berwickshire and North Northumberland Coast EMS have been identified as being potentially at risk from excess levels of nutrients, particularly phosphorus which causes excessive growth of algae which smother the habitat and deplete oxygen. Studies by the EA have concluded that nutrient inputs to this site are "overwhelmingly dominated by sources other than local consented discharges" (URS, 2012). Yet there is a familiar argument that such inputs are "natural":

> "A lot of the input that comes from the Tweed will be a natural input. There will be a certain amount of nutrients present in the water anyway. Beyond that obviously you've got run-off from surrounding areas - farmland, forestry and so on, even through the towns. A lot of that will be diffuse pollution. So it's not from a particular source. So again it's very difficult if something's not regulated and there's no process or

mechanisms to actually say hang on that needs some attention, you need to tighten up the processes there and reduce your individual input into the river. If it's just a general diffuse pollution thing the only way really I can see that would be managed and picked up is through the general regulations that apply to that kind of thing."[BNNC190314_Environmental Manager]

In this framing, the emphasis is placed on regulation to prevent activity rather than integrated management and public sector investment to lever change. The document subsequently prepared on behalf of the EMS Management Group involved new baseline research on the range of activities and the identification of management responsibilities in "face-to-face" consultation with organisations. These fed into the preparation of a new Action Plan, detailing commitments to action by all the relevant and competent authorities. However, an emphasis on strategic regulation, aimed at meeting the requirements of the European Directive, is highlighted by the deep disconnect between the planning and management processes:

"the processes that are set up nationally by Natural England are to gather lots of information and send it to Europe and that's the end of it - the processes aren't necessarily set up to let it feed back into site management - because the majority of the time, there isn't a site officer- so that to me just sounds madness - you know we've been established for 13 years now and this information isn't feeding back into the management." [BNNC200114_Partnership Organisation]

Management expertise, in this context is centralised, specialist expertise rather than local, integrated understanding. Despite its emphasis on action by regulators and managers, the Management Scheme has become

"not something we necessarily use every day and we refer to day-to-day. Because we have a statutory role, we will automatically be involved and will be consulted by the relevant authorities when there's something that we need to be involved in - so it's not a case that we'll be looking at the management scheme and thinking right ok we need to go out and proactively do this - a lot of what we do is reactive and it just happens - it's not something we actually have to make happen." [BNNC190314_Environmental Manager]

Discussion

Table 6.5 summarises the key discursive elements of development narratives identified in local development and management documents and the research interviews above. The case study demonstrates striking polarisation between settlements associated with its industrial history and those associated with rural identity and amenity. On both sides of the border, the dominant economic role represented through development planning policy is that of providing high value housing for high value workers, linked to high value recreation and quality of life. As in case study 1, a rural idyll is being promoted as the basis of a competitive housing market. These housing markets are presented as key local transformers, translating regional 'access' to the global (or central) economy into local development in the form of 'market demand'. The employment focus of the targeted labour force, in this case, however, lies outwith the case study area, in the city regions of Edinburgh and Newcastle. Low market demand is presented not as a function of shifting economic drivers but as one of intrinsically less attractive environmental quality, associated with a history of industrial activity.

The maintenance of a rural idyll narrative underpinning the development thrust of spatial policy is comparable to that identified in case study 1. However, the potential of the case study 2 area to engage with a resource based narrative involving globally competitive energy industry through open-cast coal mining and support for offshore wind farming appears more problematic than the emphasis on local resource-based regeneration in case study 1. Where the policy framework does engage with this narrative, it attempts to present it as both environmentally and socially benign, supporting the restoration of wildlife and landscape on the one hand and the provision of affordable homes and services for local communities on the other. However open-cast coal mining with an ecological modernisation agenda remains challenging in this context and struggles to present a coherent alternative to the dominant narrative of the rural idyll.

Dominant discursive elements	Alternative discursive elements
Nationally competitive housing markets, associated with rural idyll and commuting connectivity to city regions are key drivers of local economic development;	Local economic development based on industrial regeneration and mixed housing markets with strong social element;
High-value housing market demand supports affordable developments and strengthens local labour force;	High-value market demand fuels local affordability problems and undermines local labour force;
High-value housing market demand is associated with high environmental quality, high service quality and sustainability. Low market demand is associated with poor environmental quality;	Large-scale industrial development is compatible with environmental quality through intensive management of mitigation and restoration.
Urban/industrial development lowers environmental quality;	Whole ecosystems and ecosystem evolution as focus of environmental protection.
Protection of internationally and nationally significant sites is key environmental priority;	There is significant impact of drainage and diffuse pollution on water quality. Improvement of water quality is a shared governance challenge across shared landscapes/seascapes
Agriculture and "rural" development are naturally compatible with environmental quality. Water quality is achieved and managed by environmental regulators.	

Table 6.5 Conflicting discursive elements in the Eastern Borderlands Case Study

At the same time, the relationship with the main economic centres of Edinburgh and Newcastle appears to be a significant difference from the policy context of case study 1. This relationship may perhaps place more emphasis on the comparative value of the rural idyll within the wider city region in case study 2, compared with case study 1. In both cases, however, we see the conflict between a focus on regeneration and a dominant competitiveness discourse. Attempts to forge new relationships between local resource use and local economic

development through fine-grain urban/rural regeneration and innovative environmental management draw on discourses of human-nature unity and associated themes of environmental commons, sustainability and equity, as discussed in chapter 2. However such regeneration/restoration priorities appear effectively marginalised within the development policy frameworks. The ways in which imaginaries of coast are being mobilised in relation to such conflicts in each of the case studies, are examined in the next chapter.

Chapter 7: Analysis of Constructions of Coast

Introduction

Both case studies have identified the conflicting development discourses that are active in their areas and have indicated the ways in which these are promoted in local development and planning policy. The research strategy sets out to examine how spatial imaginaries of the coast are constructed and mobilised, as described in this chapter, and how this relates to these conflicts. It explores the qualities and associations of representations of 'coast' and how these interact with representations of development. It brings together data from documentary and interview texts in both case study areas in order to explore the scope of coastal references and associations and to avoid considerable repetition of themes. However it further analyses these in the context of each case study in order to specifically identify the ways in which imaginaries are being mobilised.

Boundaries:	Edge	Frontage
	Fringe	Margins
Spatial areas:	Area	Plain
	Area of Outstanding Natural Beauty	Railway
	Car park	Resort
	Catchment	Road
	Centre	Route (also walking route)
	Chalet and caravan parks	Setting
	Change Management Area	Settlement
	Habitats (cliff, dune, grassland, heath, marsh, scrub, shingle vegetation, woodland)	Site
		Slope
		Strip
	Highway	Terrain
	Land	View
	Landscape	Village (or fishing village)
	Location	Way
	Path	Water bodies/Waters
		Zone

Box 7.1: Spatial entities described as 'coastal' in the policy texts

'Coastal' processes and entities

Initial insights were derived from examining what spatial and non-spatial entities are conscripted as 'coastal', and how 'coastal' processes and the 'coast' itself are bounded and described. Box 7.1 lists the spatial entities described as 'coastal' in the policy texts identified in Table 4.2. This reveals a wide-ranging application of 'coastal' as a descriptor of spatial identity, both as a boundary or line and as a spatial area. Across this range of identities, 'coast' becomes a complex and shifting signifier in the construction of spatial functions and relations, as further listed in Boxes 7.2 and 7.3. Many of these expressions of coastal identity or functioning, as discussed below, are used ambiguously.

archaeology	industry
authorities	issues
birds	landscape feature
character	litter
community	outfalls
data	sections
defence (scheme)	sewage treatment
designation	Tourism Framework
environment	vegetation
feature	vernacular
geomorphology	water
Group	wildlife

Box 7.2 Non-spatial entities described as 'coastal'

Coastal land

The identity of the inland extent of what is referred to as the 'coastal plain' is particularly problematic. Texts in both case study areas refer to the coastal plain as indicating the low-lying land between the sea and the foothills of the uplands and they characterise it as being dominated by agriculture and providing important habitat for a range of bird species (and for red squirrel in Northumberland). The *Berwickshire and North Northumberland Coast Management Plan* (BNNCMP) (Northumberland Coast AONB Partnership and Berwickshire and North Northumberland Coast EMS Management Group, 2009) notes that "coastal woodland and scrub are important first 'land-fall' and re-fuelling sites for both common and rare migrating passerines and geese" while agricultural land "has traditionally played its part in supporting populations of passerines, geese and ducks feeding on winter stubbles and

providing high-tide roosts."(p.30). In the Northumberland Coast AONB management plan consultation document, the "coastal plain" is described as "fertile" with "rich, productive soils" (Northumberland Coast AONB Partnership, 2013, p.8). It is in relation to the coastal plain that agriculture can be described as "the most extensive land use within the coastal area" (BNNCMP, p.40). It is not clear, however, to what extent the descriptor 'coastal' in these terms has any direct reference to a marine or maritime component. Rather it suggests more subtle and complex distinctions about land use and value.

abstraction	monitoring
access	planning
accretion	process(es)
change	protection
defence	realignment
deposition	recreation
development	risk management
erosion	roll-back
evolution	squeeze
experience	studies
exposure	tourism
flooding	trade
industry	transport
landslip	weather
management	

Box 7.3 Processes described as "coastal"

Coastal waters

Other ambiguities surround references to "coastal catchments" which are statutorily defined under the Water Framework Directive as areas of land that drain to the sea plus the marine area adjacent to that land (out to 3 nautical miles from the shoreline in Scotland and 1nautical mile in England). However, the catchments of the major rivers, such as the Tweed or those draining to the inner Solway drain into estuaries, which are integral to the quality and ecology of marine ecosystems but are effectively divided from the wider coastal environment, not only in the descriptive or management language used but also in their management arrangements. At the same time, coastal space obviously includes "inshore waters" or "coastal waters" but there is no clear indication of how far seaward coastal waters extend. For instance, the

BNNCMP states that "wind farms should not normally be permitted within the coastal waters off the AONB" (para 1182) but it does not specify how far such an exclusion should stretch.

Coastal habitats

While the term "coastal habitats" (and their various components as identified in Box 7.1) suggests a scientific definition and therefore explicit delimitation, the gradations of coastal grassland, heath or marsh into non-coastal grassland, heath or marsh appear to be potentially very labile. Coastal heath is often referred to in the context of "lowland or coastal heath" in the BNNCMP. This is defined as occurring at "altitudes less than 150m above sea level and is associated with acidic grassland" (BNNCMP, p.28). The Berwickshire Coast Special Landscape Area was extended in 2012 to include "unique coastal moorland" (Scottish Borders Council, 2012c, p.32). Allusions to "coastal woodland" raise the issue of what aspects of a woodland habitat might be distinctively determined by its location on or near the coastline.

Coastal settlements

Critical to understanding a delineation of a coastal area is the definition of who lives in it. The BNNCMP explains that "the population of the Northumberland coast is mainly based within what were traditional fishing and farming villages and numbers 10,000 people"(para 892). It describes Bamburgh, Seahouses and Beadnell as "the main settlements within this coastal area" (para 163). This excludes Berwick and Eyemouth, which are the main harbours on the Berwickshire and North Northumberland coast. In the Solway Coast AONB management plan, the relevant population is numbered at 13,000 although, as the Allerdale Local Plan (APO) frequently references the AONB, there appears to be a wider impact of the designation on the whole of north Cumbria, especially the adjacent settlements of Silloth and Aspatria which fall just outside its physical boundaries.

The term "coastal centres" is used to describe settlements that have a significant role in economic activities associated with the sea, the shore or the wider coastal area (such as coastal tourism or marine renewables). "Coastal communities" is a closely related term. However, none of the documents refer to a "coastal economy" and key centres, such as Berwick-upon-Tweed or Dumfries, which play a significant role with respect to tourism on the coast, were not included as either "coastal centres" or "coastal communities" in the policy texts.

Identifying and characterizing active coastal imaginaries

The above analysis shows that the meaning or attribution of "coastal" territory can extend far from the shoreline. Attribution of coastal functioning can be correspondingly extensive, or it can be narrowly exclusive. At the same time the coastal functioning of key entities may not reflected in associated vocabulary, while it is sometimes seemingly incongruously attributed to others. It is not surprising therefore, to find that the drawing of coastal boundaries is contested in, for instance, the Berwickshire and North Northumberland Coast Management Plan and ongoing calls for boundary review for the Northumberland Coast AONB, as discussed in Case Study 1.

In this context of ambiguities, tensions, contradictions and blurring, iterative analysis of the policy texts revealed clustering of themes associated with coastal attributions that point to the performance of five distinct, although not mutually exclusive coastal imaginaries, described, as follows, under the titles of:

- *Coast as Other*
- *The Wild Coast*
- *The Rural Coast*
- *The Old Industrial Coast*
- *The New Industrial Coast*

Coast as other

This imaginary references perceptions of the social cultures, linked to fisheries and ports and harbour activity, of "coastal communities". Settlements described as "coastal communities" tend to be strongly associated with fishing (Silloth, Maryport and Kirkcudbright, Eyemouth) and other port activity, rather than, for instance, coastal tourism or coastal agriculture. These communities have a special economic and cultural character that sets them apart in development narratives e.g.

> *"I think Silloth sort of looks after itself…"* [ISF130514_Local Government]

It suggests a "coast" that looks seawards and involves a different and exclusive set of economic, social relationships than those generally recognised or subsumed within local development policy. This is 'traditional' coast, drawing on complex layers of identity that relate to a particular set of relationships between human society and the 'common space' of the sea, associated with sea-faring and fisheries, to create alternative or transgressive space. *Coast as Other* thus mobilises cultural associations linked to very specific socio-economic

traditions to distinguish coast as alternative space. In doing so, it is observed to exclude "coastal communities" from wider development discourses.

The wild coast

This imaginary is paradoxically associated with attributes of both "drama" and "tranquillity", remote from human influence. It is also closely aligned with international/national designations for biodiversity and landscape. It is described as "wild", "undeveloped", "isolated" or "remote" and "unspoilt". These "dramatic" and "tranquil" areas are associated with opportunities for both adventure and escape. Tourists are drawn by wildlife, walking, horse-riding, diving, angling and other water and beach sports. The coastal discourse associated with Natura 2000 sites is one of vulnerable wilderness: an area that has existed largely beyond human influence and which self-regulates if its boundaries are protected against human invasion. The concept of "a natural coastline" is linked with "free functioning" or "natural" coastal processes. The wild coast, or coastline, is thus ascribed its own functioning agency, which must be protected. It includes clusters of meaning around a "natural" linear system, with agency of its own, that operates as both a defence and a threat: a space of vulnerability. Thus, for instance, the Northumberland and North Tyneside Shoreline Management Plan aims to "better understand the behaviour of the coast" (Northumberland County Council and Partners, 2010, p.2). The "free movement of the coastline" is described as essential to ecosystem functioning (BNNCMP, p33).

The rural coast

This imaginary belongs to wider countryside or rural narratives linked to a 'rural idyll' of authentic personal space and community order. It associates rural development with high value residential and tourist markets, with high quality of life supported by good services, especially education. It is particularly associated with landscape designations such as the AONBs in Northumberland and Cumbria, and National Scenic Areas and the Areas of Great Landscape Value in Dumfries and Galloway and Berwickshire. It excludes "the urban" but it is the focus of considerable pressure for residential development and associated with a wider "rural" infrastructure of market towns and villages and patterns of commuting. It appears to particularly reflect the interests of the rural power nexus of farming landowners, developers and middle-class residents (Marsden et al, 1993; Scott et al, 2011; Sturzaker and Shucksmith, 2011; Shucksmith, 2012).

The old industrial coast

This imaginary is one of disordered urban periphery and dereliction, associated with historical exploitation, pollution and poverty. It conjures either the legacy of heavy industry and ports or small seaside resorts that were developed to serve industrial working populations. This is the location of "fixed capital" that has lost its value in the face of new trajectories of mobile capital as described by Harvey (2010). In contrast, the "traditional" infrastructures of coastal industries such as quarrying, lime-burning and fishing tend to be associated with the imaginary of "coast as other". The old industrial coast is characterised by advanced stages of economic decline, urban regeneration needs and low skills and education levels, as experienced in significant areas of Allerdale, Northumberland, Berwickshire and Dumfriesshire.

The new industrial coast

The emergent imaginary of the new industrial coast is one of global opportunity linked to new spatial resources that are being opened up by technological advances. The main focus is on energy resources associated with major international/national investment in high technology and high-skilled industry. It attempts to combine discourses of energy security with environmental sustainability, promoting a new set of industrial relationships comparable to Massey's descriptions of science parks, ten years ago, as flagships of global capitalism, not least in terms of its incompatibility with associations with "nineteenth/twentieth-century industrialisation":

> "The requirements to be able to play this industrial location game are: an enclosed and separate space; a landscaped environment within, to give off some evocation of 'quality'; a publicity blurb which emphasises the nearby university (as elite-sounding as possible); and a picturing of the wider environmentally attractive area within which it is set (where 'environmentally attractive' stands for a very particular aesthetic favouring a tamed suburban 'rurality' and definite absence of nineteenth/twentieth-century industrialisation)" (Massey 2005, p.143)

However, the study suggests that there is also potentially another aesthetic being mobilised in the construction of this imaginary – an aesthetic linked to larger claims to environmental sustainability, as described in greater detail below. These imaginaries, identified in local discourses, show correlations with the identities ascribed to coast in national policy discussed in chapter 3 and summarized in Table 3.6. Thus *Rural Coast* draws on national discourses of

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coast as public recreational amenity. *Wild Coast* is comparable to national designations of "undeveloped" or "isolated" coast and discourses involving "coastal ecosystems". The *Old Industrial Coast* reflects designations of "degraded coast", while the *New Industrial Coast* clearly links to discourses about coast as the economic gateway to marine resources and new development opportunities. National policy reference to "coastal communities" can be re-evaluated in the light of an imaginary of *Coast as Other* as involving differentiation between different types of community and development capacity. Analysis at the local and sub-regional level enables a much more detailed understanding of the dynamics of inclusion and exclusion of both actors and alternative development narratives in local policy frameworks.

The Mobilisation of Coastal Imaginaries in Policy

These five imaginaries are (con)scripted into development policy discourses in dynamic ways, affecting who and what is included in the development policy frameworks for an area. The way in which they are mobilized and combined can support or challenge particular development discourse. As Healey (2007) proposes, it is important to understand imaginaries in terms of "presence" and "non-presence": who or what is being included and given value and who or what is being excluded or denied value? Table 7.1 lays out these imaginaries according to the analytical framework based on Healey (2007), as discussed in chapters 2 and 4. It suggests processes of differential positioning of "coast" in relation to the wider spatial entities or imaginaries of:

- A 'traditional' marine commons
- An internationally regulated network of protected sites
- Rural space (the "rural idyll")
- Non-competitive, peripheral (urban) space
- Competitive, core (urban) space

Emergent Coastal Imaginary	Relationship to other spatial entities	Boundaries and scale	Presence/Non-presence	Key descriptive categories	Time relations
Coast as Other	Fishing and sea-faring culture relate to [common] sea space	Ascribed to particular activities, infrastructures, settlements.	"Coastal communities"	"Coastal communities"	Strong traditional histories
Wild Coast	Part of an international/national network of regulated space. Requires defence against threat	Strong site-based identity with clear, regulated boundaries. Coast as separately functioning "edge".	Excludes coast as natural resource base or related "coastal communities". Prioritises professional knowledge and defensive organisations.	Designated coast; Dramatic/tranquil landscapes. Wilderness.	International and national cycles of condition-reporting. Tensions between different reporting timescales

Table 7.1 Coastal imaginaries identified in case studies

Emergent Coastal Imaginary	Relationship to other spatial entities	Boundaries and scale	Presence/Non-presence	Key descriptive categories	Time relations
Rural Coast	Subsumed in space of rural idyll	Culturally embedded rural – urban boundary. Associated with local scale	Tightly constrained socio-economic profile linked to rural idyll	High value residential and tourist markets and services	Folds traditional and high energy industrial time (e.g. through commuting)
Old Industrial Coast	Urban periphery	Culturally embedded rural – urban boundary. Lies outside global networks.	Constrained opportunities for gentrification	Regeneration Industrial legacy	Out of time
New Industrial Coast	Urban core - part of global network of competitive spaces	Strong network rationale associated with global scale – dispersed but connected	A key narrative of major international/ national investment in high-technology and high-skilled industry	Energy Coast; Blyth Estuary (renewable and low carbon)	Urgent (competitive) time

Table 7.1 (continued) Coastal imaginaries identified in case studies

As detailed in Table 7.1 and the following section, each of the coastal imaginaries has distinctive boundary, scale and time-related characteristics. In relation to these, the characteristics of presence/non-presence are critical to the policy impact of an imaginary. Thus, as *Coast as Other* is characterized by the presence of "traditional" communities and economic activities, actors in competitive or core economic space are absent. *Wild Coast* excludes use of the coast as a resource base. This excludes the economic base of traditional coastal communities as well as large-scale resource exploitation or development. At the same time, its emphasis on ecosystem science prioritises professional knowledge and management. The exclusive socio-economic profile of *Rural Coast* is based on that of mobile, middle-to-high income groups that aspire to the rural idyll, as identified in chapter 5 and 6. Like *Coast as Other, Old Industrial Coast* is characterized by absence of (and limited appeal to) such groups and the presence of disadvantaged, economically peripheralised communities. *New Industrial Coast,* in comparison, indicates demonstrable capacity to compete for global investment and labour.

The imaginaries are not mutually exclusive. In fact they interact and overlap in complex ways. It is important to stress that they are emergent, changing and continually contested. Sometimes they are rendered most apparent by silence: for example, silence about existing industrial heritage, regeneration potentials and local resource use that could be associated with the imaginaries of *Old Industrial Coast* and *Coast as Other*. Locations that are framed by the mobilisation of these imaginaries are effectively being excluded from dominant development narratives based on competitiveness in global markets (in either a mainstream or ancillary role). These dynamics are explored in this section, in the context of each of the two case studies.

Solway Coast

As described in chapter 5, the drafting of the Allerdale local plan faced major tensions between a dominant development discourse of competitively high value housing markets and globally competitive industrial and tourism development, on the one hand, and the needs of local urban regeneration and resource development, on the other. In this context, the mobilisation of the combination of the *Old Industrial Coast, Coast as Other* and *Wild Coast* imaginaries, in the place-framing of particular locations in Allerdale (see Figure 2.1), effectively functions to exclude associated areas from dominant development narratives. As a result, there is a real tension over how either their development interests or their regeneration needs might be integrated or even reconciled with regional or local development planning

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processes. One narrative identified in the interviews defines what such coastal communities need as being "marine planning":

> "*I think its going to be interesting with the marine planning once that gets going – I think it's unexplored territory at the moment - [...] - It's the economy of the towns on the coast, isn't it – but it's also then preserving, or enhancing, or promoting – it's that sort of split – it's the dual functions of the coast really.*" [ISF130514_Local Government]

These "coastal communities" tend not to participate in development plan processes:

> "*I think again it splits on professional classes really – what we found was that the villages that were under development pressure – say around Cockermouth and the ones that are under pressure from wind turbines in the north are very articulate – they were the ones who turned up at our hearings – but if you looked at Silloth, Maryport, Workington, you get very little – not to say they're not proud of their communities – they're extremely proud – I would say 90% of those are born and bred – very close – very big families – very much West Cumbria – very proud of their traditions but don't have that sort of confidence or structures to really engage with us.*"[ISF130514_Local Government].

Instead, the strategic focus of development policy is on predominantly "rural" settlements, such as Cockermouth and surrounding villages, highlighting quality of life, high levels of education and access to key centres. It is these areas, and areas that can mobilise a related imaginary of *Rural Coast*, alongside areas that fit the imaginary of *New Industrial Coast* which are integrated into the dominant development discourse, while Allerdale's urban coastal settlements, for which the imaginary of *Old Industrial Coast* is mobilised, are effectively excluded from such discourse. Thus, the settlements of Workington, Maryport and Silloth are marginalised by the strategic framing of development set out in the area's planning policy.

Figure 7.1 Silloth harbour and silos

Source: Author

Paradoxically, the imaginaries of *Rural Coast* and *New Industrial Coast* also appear able to conscript *Wild Coast* to the dominant development narrative, as the latter is presented as compatible in terms of perceptions of global high-tech market cachet. The association with elites, the evocation of "quality", including high environmental quality and the "rural idyll" are central to locating an area as economically competitive and, indeed, viable (Massey, 1992, 2005). Thus in Cumbria, *New Industrial Coast* is actively being promoted along with high quality housing and desirably affluent lifestyles associated with the *Rural* and *Wild Coasts*. Places framed by *Old Industrial Coast* and *Wild Coast* , however, are marginalized in terms of development policy and associated investment.

Thus in the Core Strategy (Allerdale Borough Council, 2014, p.56), the *Rural Coast* of Aspatria (which includes Allonby) is described in terms of a combination of "intrinsic beauty" and development potential":

> "The Locality has a varied natural landscape with the coastal sections near Allonby nationally protected for their intrinsic beauty as part of the Solway Coast AONB. Allonby is a popular visitor destination amongst locals for access to its coast and beaches and is host to a number of outdoor recreational activities. Much of these areas also form important wildlife and habitat protection areas and are internationally protected as Natura 2000 sites. The countryside and coastal areas offer many opportunities for tourism and recreational activities to promote the local economy with

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the village of Allonby being particularly well placed to receive additional tourist numbers whilst relieving visitor pressures on the sensitive coastline and habitats."

In contrast, Silloth combines *Old Industrial Coast* and *Wild Coast*:

"Silloth makes a significant contribution to the Borough's natural environment through a range of ecologically diverse and important assets. The entire coastal sections of the locality are protected under the international designations of Natura 2000 and Ramsar sites, national designations such as Sites of Special Scientific Interest (SSSI) and local designations such as County Wildlife sites. Furthermore, the Solway Firth and Coast themselves are protected for their intrinsic natural beauty and are nationally protected through as the Solway Coast Area of Outstanding Natural Beauty (AONB) designation."(ibid, p.52)

This framing underpins the effective marginalisation of the Silloth's development potential:

[…] One of the interesting things in the hearings was the Port of Silloth Authority – because they very much want to promote their business and there was a big debate about the fact that the plan wasn't supporting a level of growth in Silloth that would support that. There was a big debate in the hearings because again our Habitats Regs Assessments were showing that if we had gone for a high level of growth in Silloth then there were going to be considerable issues around impact. So our approach has been to be supportive but you wouldn't put the levels of growth into Silloth that you would into Cockermouth" [ISF130514_Local Government]

The *West Cumbria Economic Blueprint 2012,* produced by Cumbria LEP in association with the district authorities and commercial stakeholders (operating under the title of Britain's Energy Coast) describes its approach as being

"a joint approach to economic development including a specific focus on creating an environment in the coastal plain area of West Cumbria which is attractive to and supportive of businesses"

(Britain's Energy Coast, 2012, p.1).

The Core Strategy document reproduces the policy direction and rhetoric of the *Blueprint'*s "Energy Coast Innovation Zone" in Strategic Policy 13, although it changes the emphasis of the *Blueprint* on "low carbon" to the objective of "tackling climate change", while the "coastal plain" of the *Blueprint* is translated to "the coast" in the Core Strategy. At the same time, Strategic Policy 13 states that where related proposals

"have a significant adverse effect on Natura 2000 sites, that cannot be made acceptable through mitigation, they should not be allowed to go ahead. Where mitigation is proposed, measures should be clearly defined and where appropriate secured by planning obligations." (Allerdale Borough Council , 2014, p.75).

This highlights the fundamental conflict between economic development and environmental protection discourses that the Core Strategy is attempting to resolve. This is partly achieved through the bridging role of the rural idyll. The area's "unspoilt countryside and coastlines" are an "asset" as well as being the "area's most sensitive resource". The *West Cumbria Economic Blueprint* claims that its coastal area is "distinct from cities and large urban areas":

"We are not burdened by the negative aspects of big city life including congestion, prohibitively high land values and affordability concerns. There is space for businesses to grow and develop, and for people to access high quality homes in outstanding environments" (Britain's Energy Coast, 2012, p.22).

In this context, the economy of the New Industrial Coast is represented as "dispersed but connected", a "global commercial investment location" (ibid, p.24). It promises sustainable lifestyles based on low carbon living. Ports are recreated as "international gateways". Tourism discourses are an important part of this juxtaposition of *Rural Coast*, *Wild Coast* and *New Industrial Coast* imaginaries. Thus the West Cumbria Energy Coast strategy is designed to combine with "the development potential of our historic harbours for tourism, residential, business and low carbon energy uses " in order to "complement the outdoor appeal of the Lake District National Park's visitor offer and West Cumbria's emerging position as the "adventure capital" of the sub-region". (ibid, p.38)

The local plan is keen to promote this vision:

"Allerdale has an abundance of outstanding coast and countryside which offers a huge range of opportunities for visitors to enjoy walking, cycling, sailing, kite surfing and a variety of other adventure activities. 'Adventure recreation' has recently become one of the most successful tourism sectors in the UK, attracting a wide range of visitors. The Council will support proposals for facilities and infrastructure to support the outdoor recreation market where they are appropriately located and in line with environmental objectives." (Allerdale Borough Council, 2014, p.88)

At the same time, the plan cautions that

> "Whilst the desire to develop the tourism industry is high, the priority must always be to conserve and protect the natural and historic environment from detrimental development." (ibid, p.89)

The local plan is, however, strikingly muted on the role that regeneration opportunities on the basis of such tourism could play in the struggling urban centres of the area, such as Silloth. Similarly, for Carlisle to fulfill its dominant policy role as a major service centre for high tech industry, the policy narratives of its local plan effectively silence association with the imaginary of *Old Industrial Coast*. Most of Carlisle's coastline falls within the Solway Coast AONB and development plan policy for it is largely relegated to referencing the AONB management strategy. In doing so, it is subsumed within the imaginaries of the *Rural Coast* and the *Wild Coast*. The combination of *Rural Coast* and *Wild Coast* imaginaries in the Solway Coast AONB Management Plan (Solway Coast AONB Partnership, 2010) highlights the way in which these support a particular development discourse, reconciling agriculture and wildness in the celebration of its

> "combination of landscape types – it is a sequence of coastal margins, agricultural land and mossland and it is the scale and importance of these elements in the Solway Firth that are unrivalled in any other AONB". (ibid, p53; see also p4).

while:

> "the wildness and remoteness of the Solway Coast, when compared to other coastal landscapes and in particular other AONBs, is a very important part of its special qualities" (ibid, p53; see also p3, p41, p43, p56).

There appears to potentially be a problem fitting the Solway Coast AONB into the framework of the rural idyll because of the absence of high-status landscape or village-scape associated with other AONBs:

> *"I mean I'm going to conferences ...and I'm rubbing shoulders with teams from the Cotswolds, the Chilterns, the South Downs, you know, all of them, Isle of Wight, and they're on a completely different planet, completely! They've even got businesses investing in them....So the different models are amazing. Even Arnside and Silverdale, there's a lot of rich people living there……You look at a Cotswold village and you look at a Solway village - there's not much comparison is there? But you look at an Arnside and Silverdale village and a Cotswold village and they look pretty similar - because they're all made of limestone and all of that - their vernacular is very much*

the same. Here you've got things like higgledy-piggledy Bowness-on-Solway - then you go down to Port Carlisle and it's got a Georgian frontage. The problem with that Georgian frontage is that it's completely spoiled."
[ISF130513_Environmental Manager]

As noted in chapter 5, the comparison with Cumbria's other coastal AONB, Arnside and Silverdale, in the Morecambe Bay area is particularly interesting. In Morecambe Bay, the AONB is a lever for enhanced promotion of the economy of the wider area, in the context of an integrated approach to the development and conservation of the Bay. There is a major emphasis on branding that is attractive to both visitors and a highly-skilled workforce alike:

"There's a huge quality of life agenda in Cumbria ... it's all about the future of Cumbria: what's Cumbria's economy going to look like ... if we want to attract the high end, highly skilled, highly paid jobs to Cumbria, what's the quality of life those people are going to have?" (ISF070714_Local Government)

In this context, Cumbria County Council have taken the lead in developing the Morecambe Bay Partnership, which actively seeks to incorporate the AONB in a conscious branding of Morecambe Bay as a key growth area drawing on an amalgamation of *Rural Coast*, *Wild Coast* and *New Industrial Coast* imaginaries. The Solway Coast AONB and the Solway Firth Partnership, however, have very different roles, with the latter in particular having very marginal involvement from the County Council.

In the Dumfries and Galloway development plan, for the northern shores of the Firth, the overwhelming emphasis in development terms is on housing and environmental quality and the mediation of the tensions surrounding wind energy. This mobilises the *Rural Coast* imaginary, presented as compatible with the *Wild Coast*. This effectively masks real tensions between rural development and relatively intensive livestock farming, on the one hand, and conservation objectives for water quality in the Firth and the sustainability of the area's internationally recognised "moss" habitats, on the other hand. Meanwhile, active intervention on the part of the Solway Firth Partnership to promote an alternative development narrative of resource-based regeneration based on strengthening highly diverse, small-scale, marine-based commerce and industry and developing alternative development networks remain marginalized within the development planning arena, assigned to the imaginary of *Coast as Other*.

Figure 7.2 Kingholm Quay, Dumfries

Source: Author

The case study reveals the rural idyll being conscripted to the promotion of these global markets in the provision of desirable commuting, retirement and 'second home' lifestyles through the local plan frameworks. Urban regeneration (in Workington, Maryport, Silloth, Carlisle, Dumfries and Stranraer) conflicts with accommodation of this burgeoning rural market focused on smaller market towns and villages. The latter depends on a particular branding of high-value property through the association of environmental designations with high socio-economic status, and the association of local industrial development with lower socio-economic status and thus with lower market attractiveness. In this context, alternative visions for development that seek to integrate socio-economic development and adaptive ecosystem management, as expressed through the development work of the Solway Firth Partnership and LEADER action groups (discussed in Chapter 5) are effectively peripheralised or excluded in the development plan process.

Conflicts over wind farm policy reveal the significance of the vision of rural housing markets being promoted by the local plan within each local authority. Thus in Carlisle, despite the acknowledged potential for wind farm development being very limited by exclusion zones, wind energy policy generated similar consultation interest to housing policy during plan preparation. In neighbouring Allerdale, which, in contrast, has considerable wind industry

potential, wind policy has been critical to plan preparation in contrast to the pressing needs of regeneration policy in the district's core urban areas. In Dumfries and Galloway, there is an uneasy truce between wind energy policy driven by Scottish national-level commitments and the rural landscape aspirations highlighted by the local plan, which is highlighted by the suggestion of "sacrifice". The problem appears to be the perceived impact of wind farms on the rural idyll and hence on a dominant understanding of competitive viability (Massey, 1991, 2005).

If a place is identified with a spatial imaginary that cannot fit the dominant narrative, its resource value and development potentials are essentially excluded in terms of investment (Figure 7.3). Thus, for instance, in West Cumbria, Cockermouth and surrounding villages, are positioned strategically with the imaginary of Cumbria's *New Industrial Coast*, because their "rural" imaginary is associated with quality of life, high levels of education and access to key centres. On the other hand, Cumbria's traditionally urban coastal settlements, which are framed by a combination of the imaginaries of *Old Industrial Coast*, *Coast as Other* and *Wild Coast*, are perceived as inherently difficult to marketise. As a result, communities associated with these imaginaries struggle to engage effectively with the development planning process. In contrast, Carlisle seeks to fulfill its target roles as major service centre for high tech industry by effectively silencing the imaginaries of the *Old Industrial Coast and Coast as Other*, which have been so much part of that area's history, and instead promoting the imaginaries of *Rural Coast* and the *Wild Coast* in its policy narratives.
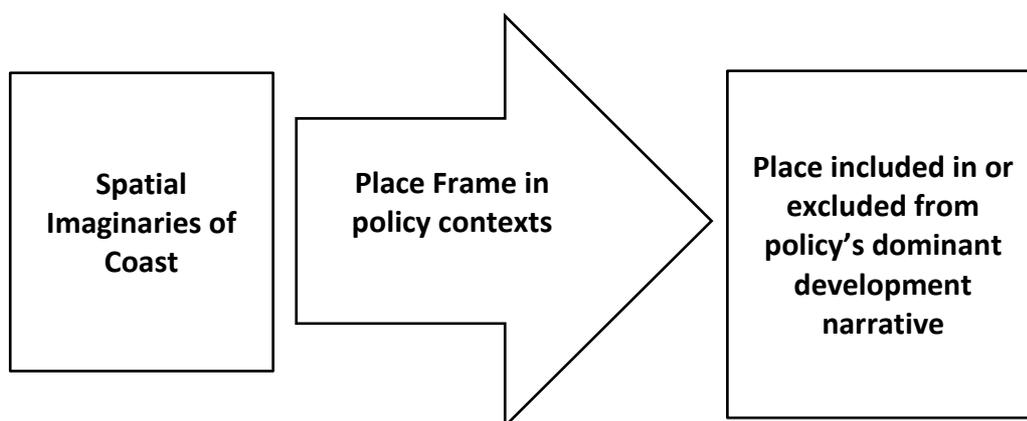
Figure 7.3 Power outcomes of mobilisation of spatial imaginaries revealed in case studies

Eastern Borderlands

As discussed in chapter 6, in the Scottish Borders/Northumberland area, constructions of the coast are set in the context of dominant development discourses for the encompassing Edinburgh and Newcastle city regions. Thus the Scottish Borders local plan is framed by the strategic plan for Edinburgh and South East Scotland (SESplan) and the Northumberland Local Plan has been finalized in relation to the inclusion of the unitary authority of Northumberland in strategic arrangements for a North East Combined Authority. The dominant development narrative, in this context, is that of high value housing for high value workers, linked to high value recreation/amenity value. As in Case Study 1, development and promotion of this property market at the heart of economic strategy is conflated with discourses of protecting environmental quality.

Urban regeneration, on the other hand, appears as a weakly articulated discourse, despite its apparent relevance for a significant proportion of the population. There are, however, complex tensions between the development discourse based on the competitiveness of a rural housing premium linked into global markets through the Edinburgh and Greater Newcastle conurbations and competing aspirations for local economic development, affordable housing and service markets. Thus, for instance, the Northumberland Economic Strategy highlights global energy sectors as a key opportunity for local economic growth, centred on development in the Blyth estuary in South East Northumberland, and open cast coal mining remains a visible and contested aspect of the Northumberland economy. On the other hand, the development of small and medium enterprises and public services in a diverse, locally sensitive, knowledge-based approach is being promoted through innovative partnerships such as the Tweed Forum, the Southern Uplands Partnership, LEADER action groups and community trusts.

The spatial imaginary of *Wild Coast* is mobilized to support the dominant development discourse by adding a premium to the high-value end of the residential market. The Berwickshire coast is envisaged as remote from development pressures:

> *"There's not an awful lot of development because we've got quite a rugged coastline up here, there's not an awful lot of development that can happen that requires our input"* [BNN190314_ Environmental Manager]

This observation was made confidently despite the fact that this relatively short area of coastline is dominated by Eyemouth, where housing, industrial and harbour-related development are demonstrably significant features that belong to the spatial imaginary of *Old Industrial Coast*. The attribute of "ruggedness" is associated with a *Wild Coast* that is resistant to development pressures. There is certainly a presumption that any pressures for development can be successfully engaged with (and, if necessary, successfully prevented) at the level of individual development proposals. Thus Eyemouth is positioned as intrinsically peripheral to development priorities, despite the obvious development needs of the local population. There are close linkages between imaginaries of *Coast as Other* and *Old Industrial Coast* and areas associated with either are peripheralised or largely silent in the policy framework. For example, the BNNCMP briefly notes that Eyemouth is the "third biggest fishing harbour on the east coast, processing fish from Northumberland and Scotland" (p.63). However, this recognition is not reflected in the policy framework of the management plan and there is no further expansion on employment, marketing or diversification.

The *Wild Coast* imaginary in the Eastern Borderlands is associated with a striking stress on "drama", with 19 collocations of coast with "dramatic" in the BNNCMP. While dramatic cliff scenery is limited to the Berwickshire coast, rocky coast is conjured as "rugged" and "hard", with "spectacular formations of strata" and beach and dune landscapes are "impressive". Such expressions of drama appear interchangeable with expressions of wildness, conjuring impressions of "unspoilt" nature. Dramatic, wild, undeveloped, unspoilt, remote and isolated are used as synonyms:
- "isolated coastal land and seascapes" (BNNCMP, para 117)
- "remoteness of the Berwickshire and North Northumberland coast from major areas of economic activity" (BNNCMP, para 1040)
- "absence of intrusive development adds to the special qualities and context of the coast"(NCC, 2014, p.11)
- "the wild coastal exposure of the AONB" "(NCC, 2013, p.5)

Tranquillity similarly relates to unspoilt nature: "exposure and tranquillity on the flat low lying open coastal plain and windswept coast, with sparse tree cover, huge skies" (NCC, 2013, p.5). The AONB management plan additionally highlights "Dark Sky tranquillity" as a feature of the unspoilt nature of the area (NCC, 2014, p.23).

As with Eyemouth, the heritage of coastal fisheries in the string of harbours along this coast, associated with the spatial imaginary of *Coast as Other*, is largely silent in the overall policy framework. This is reflected in the absence of a Fisheries Local Action Group for Northumberland, while in the related work of the LEADER Local Action Group,

> *"There has been absolutely nothing in people asking for fishing support".* [BNNC041213_Partnership Organisation]

Potential relationships between wildlife and food tourism, on the one hand, and ecosystem management for sustainable fisheries or shellfish harvesting, on the other, are effectively silenced. Instead, in the context of the Northumberland Coast and Lowland LEADER programme, which extends from the Scottish border to south of Amble, the identity of "coast" has essentially been assimilated into that of the rural imaginary:

> *"If I think back to the local development framework that we put together for the Coast and Lowlands, I don't know that coast is actually in there at all other than we recognise that the AONB is trying to manage the coastal strip in as sustainable a manner as possible and we've very definitely kept that bit in because that's almost a statutory undertaking."* [BNNC041213_Partnership Organisation]

Here we see explicit recognition of the tendency in the policy texts and interviews to equate the Northumberland "coast" with the landscape designation of the AONB. Recognition of coast in South East Northumberland tended to require a lot more prompting on the part of the interviewer. In response to being asked about perception of the "key policy issues for both development and protection of the Northumberland coast" one interviewee replied

> *"I think fundamentally how we cope with making sure that the villages within the AONB along the coast can actually sustain themselves during the year, not just seasonal tourism work, and at the same time without unbalancing or without having an impact on the environment. You could increase tourism but you don't want to increase tourist footfall that's going to disturb conserved environments or cause problems with dune roll-back or various other natural processes."* [BNNC121213_Local Government]

The solution according to the Northumberland Local Plan in this context is the promotion of broadband to support home-working in the knowledge/service management industries and strengthened design constraints in response to the demand for housing in these villages:

> *"I think that if we can create policies that encourage that kind of employment, we'd be*

doing the coast a great service. The kind of place where people can work from home in little obscure villages and hamlets and isolated farmhouses without feeling they're cut off from the world." [BNNC121213_Local Government]

This is a strong development discourse for the local plan and indeed there is an aspiration that, beyond the AONB:

"*Somewhere like Newbigging and Amble, they've got the potential to be as beautiful as a Cornish fishing village.*" [BNNC121214_Local Government]

Another interviewee asked about development priorities for the coast suggests the conflict between a property-led understanding of development and one that is responsive to perceived local needs:

"*However desirable [development] is, it is only property developers, who are trying to feather their own nests. The AONB is effectively only being developed from a tourist point of view. There's no real business going in*".
[BNNC041213_Partnership Organisation].

Alternative development discourses are being eclipsed by a dominant discourse of rural housing and tourism development that use *Wild Coast* qualities associated with the AONB designation. The bundling of this imaginary with that of the imaginary of *Rural Coast* is mobilised to capture the value placed on privacy and exclusion in high market value housing.

There is however a strong "north-south" split in development policy for the Northumberland Coast. To the south of the AONB, the stretch of coast from Amble to Newbigging is caught between the housing potential of Northumberland's *Rural Coast* and the challenges of its industrial legacy encapsulated in the imaginary of *Old Industrial Coast.* An area of particular interest has been Druridge Bay which lies to the south of the AONB, at the interface of the North and South Northumberland coast and reveals the conflict between the coastal imaginaries for Northumberland. The shoreline is a wide sweeping sandy bay, backed by dunes, comparable to that of the sweep of sand and dunes between Bamburgh and Seahouses in the AONB. However, it is also

"*just reclaimed open-cast landscape and because it was reclaimed at a fairly early stage, it's fairly low-grade reclamation*" [BNN121213_Local Government]

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However subsequent to reclamation part of the area was developed as a Country Park and attracts considerable local use for walking:

> *"if the AONB could have been extended, it would have been nice ..[...].. to bring Druridge Bay into the whole thing"* [BNN121213_Local Government]

In the Lynemouth area, south of Druridge Bay, "*spreading industrial and housing pressure*" is described as being in conflict with the observation that "*it is semi-natural – land around the power station is classic brownfield land that's got a high biodiversity interest*" [BNN121213_Local Government]. It is such a context that the South East Northumberland coast is the focus of interest in biodiversity offsetting but this links to an alternative imaginary of the coast: that of a new industrial landscape characterised by a narrative of ecological modernisation. This includes large-scale redirection of agriculture and creation of recreational land along the coastal edge. Current agricultural interests are, however, often protected behind the 'unspoilt'/'rural idyll' construction.

Wind energy development has also found itself at the interface of these competing development discourses, as a dominant focus for public objections to the local plan and to planning applications. It is represented, on the one hand, as incompatible with the development discourse that combines 'wildness' with high status aspirations to 'rural' living (Abrams et al, 2012; Darling, 2005). On the other hand, it is compatible with the emerging counter-discourse that combines a "cosmic ecology" (Seielstad, 1982) with ecological restoration, industrial and leisure development and community inclusion, as expressed in the landscape development of "Northumberlandia", discussed in chapter 5 (Figure 7.4).

There is also an innovative sustainable development discourse in the Scottish Borders (of which Tweed Forum and the Scottish Land Use Strategy pilot are a part), in which habitat restoration is promoted as a driver of local development. Other local scales of development include renewable energy through community-owned turbines in, for example Berwick and Blyth. The recent designation of the inshore waters of the southern Northumberland Coast, from Alnwick to Whitley Bay, as a Marine Coastal Zone challenges construction of the area as *Old Industrial Coast*, while emerging links between recreational diving at St Abb's and St Mary's, at either end of this coastline suggest the potential for an alternative framing of its identity that is reminiscent of early calls for the designation of the Northumberland Coast as a National Park (Woolmore, 2004). The extent to which this could be reconciled with the imaginary of *New Industrial Coast* remains to be seen.

Figure 7.4 Cosmic pointer from Northumberlandia

Source: Author

Discussion

This research set out to answer the question of how different constructions of 'the coast' relate to power in development governance in the UK. The findings of the research do not and cannot aim to answer this question exclusively but they do reveal significant impacts of spatial imaginaries of coast in the case study areas. The case studies point to mechanisms through which the dominance of a development discourse of global competitiveness intrinsically shape local development policy through the differential mobilization of spatial imaginaries. They show how such imaginaries can bring together two essentially contradictory discourses: that of industrial production and that of an aspirational rural idyll, within the global narratives of ecological modernization and competitiveness.

The Solway Firth case study shows this being effected through the strategic bundling of *New Industrial Coast* with *Rural Coast* and *Wild Coast* imaginaries in spatial frameworks, while areas that are associated with the imaginaries of *Coast as Other* and *Old Industrial Coast* are excluded. Together *Rural Coast* and *Wild Coast* position areas in terms of residential and consumption functions, as opposed to, productive functions. This has implications for voices seeking to represent the regeneration needs and potentials of these areas, alongside calls for more integrated approaches to resource management and use. The potential for industrial development narratives in the Eastern Borderlands appear severely constrained. Development

policy is dominated by the branding of the rural idyll, drawing on the *Rural Coast* and *Wild Coast* imaginaries. This is in stark contrast to the fact that new economic activity is urgently required to meet local needs and improve local opportunities for a very significant proportion of the population of the Eastern Borderlands.

Despite the evident failure of development markets in West Cumbria, Dumfries or South East Northumberland, the policy-making process struggles to direct investment to regenerative processes, and the latter appear likely to remain incidental or subordinate to dominant development trends. These are dominated by constructions of market competitiveness in a global context of investment in mega-infrastructure and real estate. Policy promotion of this development competitiveness discourse mobilises a combination of the imaginaries of *New Industrial Coast, Rural Coast and Wild Coast,* which paradoxically reconciles particular sectors of industrial development with the pre-occupations of investment in residential real estate and protected enclaves providing ecosystem services. Association with the imaginaries of *Old Industrial Coast* and *Coast as Other* exclude areas from this dominant development narrative, as such places are non-viable or non-competitive in this framing. Alternative development narratives seeking multiple fine-grain economic and ecological interventions, including regeneration of existing built and environmental capital, the restoration, creation and recognition of ecosystems at the level of whole catchments and regional sea systems, as demonstrated in the case study areas, require alternative spatial imaginaries. Thus, for instance, the Solway Coast AONB Management Plan's description of "a true continuum from solid to liquid and land to water" challenges the defining roles of the coastline as either a linear feature or a functional agent. Similarly, descriptions of the "continuity" of the water environment, between inland and marine water bodies, reframe the environment itself. It may be that as river basin and marine plans develop, they will completely reframe the nature of the 'coast' in relation to the wider interactions between land and sea.

Chapter 8: Conclusions
The Role of Spatial Imaginaries in Development Governance

Introduction

The overall aim of this research is to uncover and explore discursive mechanisms through which power is both wielded and transformed within spatial policy-making. The research questions engage with the specific example of spatial imaginaries of coast, in response to the analytical opportunities offered by changing terrestrial and marine spatial planning institutions and policy-making frameworks. In particular, the research explores whether differential constructions of coast operate as mechanisms of power and how these mechanisms work. As set out in chapters 5 and 6, it identifies conflicting development discourses in the case study areas, polarised between strategies based on competitiveness in global industrial and property markets and attempts to develop local asset-based regeneration. Chapter 7 traces how spatial imaginaries of coast are represented in policy frameworks and how these can act to exclude or repress policy alternatives to the dominant narratives of global markets and established property interests.

This concluding chapter considers the extent to which spatial imaginaries of coast may be a special case and whether they can give broader insights into place-framing in policy processes. It explores what the findings can tell us about the ways in which spatial imaginaries perform within governance and, in particular, the roles they play in the performance of power relations, as set out in research questions 1 and 2, in Chapter 1. It revisits the conceptual framework developed in the study and considers implications for development governance aimed at sustainable and equitable processes and outcomes. Finally, the potential for further related research is explored.

Power and Development Governance

The contribution of this study to the theoretical understanding of power in development governance is based on its demonstration of how spatial imaginaries may be incorporated into the building of place frames, through spatial policy, in ways that consolidate dominant narratives. It identifies the spatial imaginary as a key focus for challenging such power relations within the policy-making process. Awareness of the potential lability of an imaginary, such as 'coast', not only focuses analytical awareness on the underlying motivations and associations being constructed in any particular policy-making episode, but

also opens up possibilities for developing new place frames. This understanding of the role of spatial imaginaries as mediators of power relations bridges structural and agentic understandings of power. The spatial imaginary is open to actor reconstruction but it can actively impose particular relations of power because of the ease with which actors accept them as categorisations of 'reality'. Such accepted categorisations are deeply cultural and thus the work of reconstructing them is cultural work, involving "a continuous dynamic process of spatial interpretation, sense making, performance and communication" (Ernste, 2012, p.97) and the need for awareness of the hidden functioning of structures of domination and exclusion.

The empirical findings reveal mechanisms enabling domination by hegemonic development discourses, based on the differential conscription of spatial imaginaries of 'coast'. They trace how particular imaginaries of coast are being institutionalized in development narratives promoted through local planning policy in the case study areas. In doing so, they highlight the potential to identify, understand and articulate competing conceptions of place in order to increase involvement and innovation. They show that constructions of coastal space are aligned to competing discourses according to deeply embedded power struggles. The way in which a coastal imaginary is ascribed to a place (or 'bundled' into a place-frame) determines differential capacities for that place. Once summoned up, these places become 'actors' through the imaginaries that they mobilise. Coastal imaginaries demonstrate powerful associations of meaning that can be manipulated and repositioned by those who do the summoning up of place. However, this also suggests that the imaginaries underlying hardened concepts of the identity or potential of 'a place' are, in fact, open to challenge and new negotiation. Indeed the power to call into being new meanings of place qualities, based on spatial imaginaries which represent new juxtapositions of social, ecological and economic meaning, can be seen as a key development planning mechanism. As Healey argues (2007, p.229), "the future is emergent, in process of continual invention, not pre-designed".

The Significance of Spatial Imaginaries of 'Coast'

Spatial imaginaries shape, or give structure to, discursive interaction and thus enable or disable particular socio-spatial outcomes. They are politically strategic and demonstrate the inherently political nature of spatial policy processes. It is vital therefore that their construction and deployment is the subject of critical analysis and open debate. The literature review conducted as part of this research suggests that the way in which imaginaries of

'coast' are conscripted to the dominant narratives may be linked to the particular cultural charge associated with 'liminality' or 'in-between-ness' that is ascribed to the land-sea interface, as suggested by Shields (1991) and Hofmeester et al (2012). As Ryks (2014) argues, in the context of New Zealand, this results in a simultaneously bipolar construction of coast as space that is troublesome, requiring control, and space that is a highly valued idyll for consumption. The imaginaries of *Coast as Other* and *Old Industrial Coast* have resonances with Ryks' identification of processes of social exclusion concurrent with wider processes of coastal gentrification in which he argues that

> "the development process driving the marketing of desirable and exclusive coastal sections, coupled with local and government planning that favours certainty and well-defined and contained coastal zones, together have compounded effects for communities with traditional links to the coast." (p.38)

Ryks also suggests that this process has direct implications for the delineation of defining boundaries for the 'coastal' area, with planning policy resulting in spaces that conform to the hegemonic discourse of development. Even more fundamentally, he argues that in this context, we can observe how place becomes "instrumental in the crafting of human subjectivity". This link between planning practice and power relations remains an under-explored area of interest for planning theory and empirical research, for which coastal imaginaries offer particular insights.

In the case studies, the relationship between 'coast' and definition of the 'rural' has emerged as particularly significant, not least in relation to the competitive market power of the rural idyll associated with the British countryside and historically embedded in its planning frameworks. This rural idyll constructs the compatibility of economic growth with landscape and ecological concerns through the protection of open countryside and farmland and particular scales and designs of housing (Scott et al 2012). *Rural Coast* is not only part of such an assemblage, it potentially points to new exploitable opportunities in the rural arena, which Marsden *et al* (1993, p.173) have identified as characteristic of processes of the construction of the British countryside. Identification of an area with the *Rural Coast* imaginary incorporates it into the competitive space of the rural idyll.

The imaginary of the *Wild Coast,* with its characteristics of drama, spectacle, spirituality and escape has strong roots in the Romantic dualism of human and nature that paradoxically has

partnered discourses of Western industrialism and property rights, as discussed in chapter 2. Identification as *Wild Coast* separates an area from the concerns of human livelihoods and constructs a pristine resource for escape and elite recreation. At the same time, it is conscripted into a global network of regulated space in the form of internationally valued ecological habitat. Tensions that are generated around use (for escape and recreation) are resolved through an associated emphasis on exclusion and protective management.

The *New Industrial Coast* appears to draw on the discourse of ecological modernisation on a large scale. As discussed in chapter 6, in particular, it suggests a "cosmic ecology", proposing collective high-tech infrastructures for sustainability that engage with the global challenge of climate change. This includes large-scale low carbon development through nuclear and other technologies. It asserts that technology can close material loops and protect biodiversity, uncoupling economic growth from environmental loss and degradation. In this discourse, natural capital can be replaced and restored and potentially damaging activities mitigated. *New Industrial Coast* looks outwards to new, uncharted frontiers of environmental space and promises new resource opportunities of unprecedented scale. It is this discourse that Cumbria's Energy Coast and Blyth's Renewable Energy Zone are attempting to harness and which is visually expressed through landscape art such as *Northumberlandia*.

As Healey (2007) suggests, spatial strategy is found not in the formal presentation of a policy document but in the imaginaries that are active in the policy arena. As she further stresses, these may not be immediately obvious or transparent. Indeed they may not be directly conscious but this does not lessen their role in power relations. The spatial imaginaries of coast in this research point to mechanisms that can contribute to what Saskia Sassen describes as "expulsions" of the interests of actors who cannot participate in or take advantage of dominant development narratives (Sassen, 2014, p.1). The temporary crystallizations of coast within development discourse are power-laden in that they frame what can and cannot be included within the accepted development discourse for a place.

The findings of this study point to the potential richness of a research agenda that is sensitive to the discursive implications of the social constructions of coastal space at a time when discursive processes involving interactions between marine and terrestrial space have become particularly intense. It opens up new insights into the extent to which development policy frameworks are inclusive, enabling and progressive and the extent to which they may be

exclusive, regressive and repressive, according to their role in mobilizing spatial imaginaries. In doing so, it illuminates otherwise hidden discursive processes around current spatial imaginaries of coast and presents evidence that no matter how much the coast eludes the fixing of physical boundaries, it can be expected to play a substantive role in local development policy.

While spatial imaginaries of coast mobilise particular sets of cultural narratives that draw on historically and geographically specific associations, the research also identifies strong overlaps and interactions with spatial imaginaries of 'rural' and 'urban' settlement and underlying discourses of human-nature relationships. This suggests that the set of coastal imaginaries identified in this study can be seen as a paradigmatic case (Flyvbjerg, 2006; Pavlich, 2009) of spatial imaginaries that perform relations of power in the place-framing processes of strategic policy-making. Investigation of the spatial imaginaries active in any spatial policy-making context can involve engagement not only with imaginaries of the coast, but also of other spatial imaginaries specific to that context. These can, at the same time, be expected to have strong relationships to wider development discourses.

As discussed in Chapter 2, and illustrated by the conflicting development discourses identified in the case studies, alternatives to the dominant narratives of market-focused hegemony draw, to greater or lesser extents, on unitary, as opposed to dualist, conceptualisations of human-nature relationships (Box 2.6). Such alternative conceptualisations place emphasis on socio-ecological participation in evolving ecosystems, of which humans are envisaged as an integral part. In this context, economic performance is evaluated in tandem with a broad range of locally sensitive indicators of sustainable human/non-human well-being. Such conceptualisations of development place discursive weight on participative engagement in resource commons and actor equity. Spatial imaginaries, as observed in the case studies, enable or repress the expression of competing conceptualisations of development and this has direct consequences for development processes and outcomes.

Implications for practices of development governance

The definition of power used in this study distinguishes between power and domination/coercion (violence). The issues for the mobilisation of spatial imaginaries within governance processes are thus ethical issues. As Hillier (2001, p.70) points out:

> "plans and policies are loaded with material, ideological and political content which may perpetuate injustices and do violence to those values, images and identities which have not been traditionally recognised".

Planning involves practical judgement in social and ecological relationship that is inherently power-laden (Davoudi, 2015). Understanding how we construct the imaginaries framing decision-making in this context is a fundamentally moral challenge. We need to know the extent to which the process is inclusive, enabling and progressive and the extent to which it is exclusive, regressive and repressive i.e. the extent to which democratic decision-making is empowered, or is undermined in ways that can be recognized as inherently violent. Indeed, it can be in such analysis that, as Forester (1993) argues, there is

> "a distinctively counterhegemonic or democratising role for planning and administrative actors: the exposure of issues that political–economic structures otherwise would bury from public view, the opening and raising of questions that otherwise would be kept out of public discussion, the nurturance of hope rather than the perpetuation of a modern cynicism under conditions of great complexity and interdependency." (p.6)

The importance of developing capacities within practice for 'frame reflection' and 'transformation' has also been stressed by Rein and Schőn (1993) (Healey, 2009). However, planning practice still under-recognises the ways in which hegemonic practices are inscribed in spatial patternings and assumptions and the ways in which these influence decision-making. Highlighting conflicting discourses, through both planning practice and research, is vital because it is in these arenas of conflict that real innovation can be generated. 'Non-violent' (agonistic) conflict generates new knowledge of space. Its goal is the maximization of power – the generative capacity of society to meet the needs of survival and ecologically sustainable development outcomes. The goal is not consensus but transformation (Fischer and Hajer, 1999; Healey, 2007). The generation of new spatial imaginaries opens up new place-framing opportunities and is therefore fundamental to productive and inclusive political processes.

Thus, rather than assumptions about local identity as a spatial imaginary that simply needs to be identified, described and agreed, it is vital that any spatial imaginary, such as coast, is recognized as the focus of both agonistic and deliberative debates, remaining opening to challenge and reconstruction within the spatial planning process. This recognition demands, in consequence, a conscious commitment to involve society in creative emergent, spatially

aware processes aimed at addressing injustice, degradation, oppression and destruction. This can be most readily grasped in relation to the most vulnerable human and non-human communities. Understanding any 'place' as a heterogeneous assemblage of discourse, practices and materials, mediated through shifting spatial imaginaries, opens up the possibilities for challenge, creativity and innovation. Productive power, the power to create, produce, survive, happens within networks. Knowledge as a function of networks is constantly created and recreated. Where there is no possibility of creating or recreating knowledges, there is violence rather than power. As noted in Chapter 2, power can only be called power (and not force or violence) when it acts through "an open set of practical and ethical possibilities" (Gordon, 1991, p.189). The potential for resistance and challenge over time distinguishes an adaptively powerful governance system, at one end of the continuum of power, from violent processes of domination, exclusion and marginalisation, at the other extreme. (Crawford, 2017, pp

As discussed in Chapters 1-3, there is a widely acknowledged need for significant social, economic and political innovation to achieve sustainability. This study indicates that social and spatial imaginaries play a key role in either supporting or repressing such innovation. How can planning practice engage with the creation of imaginaries to achieve inclusive, adaptive outcomes that support further innovation and responsiveness? Murdoch (2006, p156) has called for planning for land and water resources to develop "a new spatial imagination … drawing particularly on ecological understandings of relations, especially those between humans and non-humans". Development discourses could be liberated by such re-imaginings if we understand the way in which spatial imaginaries frame potentials and relationships.

At the same time, it is important to recognize the ways in which environmental issues and ecological concepts can be subsumed into dominant global development discourses, effectively marginalizing not only human and non-human communities of particular locations but also the alternative development potentials of whole regions. As Hajer (2001, p.181) cautions: "new democratic processes will by no means automatically support the case for a form of planning that would help to bring about more ecologically benign socio-spatial relations." While place-making based on the mobilisation of imaginaries can be consciously used as a powerful tool for competing in global space, developing and promoting specific qualities to attract highly mobile capital and less mobile skilled labour, for improving quality of life or for managing biodiversity and ecological functioning, it raises the danger of weaker

areas finding themselves "marginalised in the rising significance of place, as their offerings in the marketplace are not valued highly" (Madanipour, 2001, p.157).

Neither places nor people have single innate identities and discussion of 'identity' has a marked tendency to fetishise them as bounded objects. Rather, identity involves hugely complex, irreducible processes of individual, social and ecological being in the world ('knowing from within' as described by Shotter, 1993) that express themselves through creative and power-full constructions such as those discussed above. Both attempting to fix identities or ignore them are violent strategies. Instead as Mouffe (1992, p.237) argues we need to conceive of participants (or social agents) not as unitary subjects but rather "as…the articulation of an ensemble of subject positions, constructed within specific discourses and always precariously and temporarily sutured at the intersection of those subject positions." In this context, it is possible to conceive of planning practitioners being confident of the need to encourage citizens and organisations to engage with and challenge conceptions of place and to be confident that the associations that participants wish to promote are indeed relevant to political and technical debate and can be presented in an openly creative process without fear that innate boundaries must be either defended or transgressed. In particular, a focus on how boundaries are being drawn can become the focus for exploring and dismantling levers of exclusion and domination.

In the context of marine resources, such a practice would aim to address, for instance, what Hull (2013) has identified as the failures of UK marine planning to address the fishing community and coastal partnerships. It also suggests a key role for local authorities in what she describes as the unmet "opportunities to integrate marine and terrestrial plan production and participation" (Hull, 2013, p.520). As Gilliland and Laffoley (2008) detail, attempts are being made to mobilise participation through 'goals achievement matrices' that identify conflicts and allow them to be openly addressed. However, this has tended to be interpreted as a technical process that can be tendered and delivered in short time frames and with clearly confined processes, as experienced in, for instance, the development of the Site Improvement Plans for the Solway Firth and Berwickshire and North Northumberland European Marine Sites. Flannery and O'Cinnéide (2012b) note the challenge of territorial boundaries in transitioning from "a paradigm dominated by sectoral thinking, management and action to one of integrated and cooperative enterprise" (p.114) involved in developing ecosystem-based management. This research supports their argument for much greater attention to be paid to the identity issues raised by ecologically interconnected and socially constructed geographies.

Implications for theory and research

Collaborative theory and practice has certainly accepted that strategic policy development is "deeply political" (Healey, 2007, p.30), highlighting some issues and interests, devaluing others, while silencing or ignoring yet others. As Healey (ibid) notes "its 'integrations' and 'joining-ups' are always to an extent partial, pulling some relations closer together, while 'disintegrating' others." However, planning research has not yet explored the extent to which these processes are all-pervasive and multi-layered. The research approach and findings of this study point to a strand of reflective practice and a research agenda that can help to address this lack. Such exploration could transform the politics involved. When place boundaries are recognised as tools which can either enable power or violence, breaking them down, or remaking them to meet reconfigured objectives, is a core political activity. As Healey (2007) points out, UK planners have imagined that 'objective' boundaries could be found through clear distinctions between 'town' and 'country', with repeated efforts to reorganise local government attempting to line up cultural, functional and administrative dimensions of territorial organisation. A relational geography dismantles this conceptual dead-end and suggests strategic mobilisation around place qualities to generate transformative power through "connecting specific relational dynamics with *specific qualities of juxtapositions*" (Healey, 2007, p.213, italics added). Mobilisation around place qualities is happening whether or not planners choose to intervene. This study points to ways in which mobilisation around place qualities of 'coast' is currently unfolding.

As Massey (2005) argues, "attention to implicit conceptualisations of space is crucial also in practices of resistance and of building alternatives" (p.99). In particular she stresses that understanding space as "the constant open production of the topologies of power" allows us to appreciate how different 'places' stand in relation to the global (p.101). It is through place that the global is constituted, invented and coordinated. She urges "a politics which takes account of, and addresses, the local production of the neoliberal capitalist global" (ibid). This must be prepared to challenge particular constructions of place and "the webs of power-relations through which it is constructed" requiring a local politics and a development policy-making process that can "take seriously the relational construction of space and place"(p.102). This is particularly challenging to current relationships between development policy and environmental management. Massey explores how the notion of place as a temporary constellation relates to the arena of the 'natural world'. While rejecting a foundational or deterministic aspect of the natural world in the nature of place, she asserts:

"[W]hat is special about place is not some romance of a pre-given collective identity or the eternity of the hills. Rather what is special about place is precisely that throwntogetherness, the unavoidable challenge of negotiating a here-and-now; and *a negotiation which must take place within and between both human and nonhuman*" (p140, italics added).

This negotiation can mobilise spatial imaginaries as containers of both knowledge and cultural values. It points to the need for planning practice that fully embraces what Davoudi (2015, p.322) describes as "a practice of knowing" in which it is fully recognized that "everyone is knowledgeable, that the boundaries of knowledge are fluid and overlapping and that cognitions are situated and collective involving actions and interactions". In such a context, a key task becomes one of

"identifying where relations of domination are working through planning, and to imagine institutional conditions and planning practices which might limit those relations in politically legitimate ways" (McGuirk, 2001, p.214)

The explicit identification and exploration of spatial imaginaries appears to bridge the perceived division between communicative frameworks for planning research and Flyvbjerg's phronetic approach to social science. It reveals specific mechanisms of potential domination, or violence through exclusion and negation of interests, and offers tools for specific, contextual analysis of who gains and who loses, allowing alternative imaginaries to be given a voice and to be similarly assessed (Flyvbjerg, 2004, Flyvbjerg et al, 2012). The distinction between 'power' and 'violence' used in this approach helps to highlight the communicative approach to social equity and inclusion, in which the exclusion of discourses is recognised as a form of violence that undermines the power to achieve fundamental social and ecological objectives. Inclusive policy-making, from this relational, emergent perspective, does not pursue a utopian ideal state but, rather, agonistic processes that are constantly finding ways of shaping and re-shaping 'place' in ways that minimise violence and maximise the power to maintain mutual survival and well-being.

Reflections on the methodology

This analysis has drawn heavily on Healey's analytical framework for spatial policy (Box 2.2). However, it differs fundamentally in its focus. Healey's focus is on the imagination of 'regions' within the context of spatial strategy-making. A directly comparable focus would be that of the imagination of coast in coastal zone management strategies or, possibly, marine

spatial plans, in which a set of conceived 'coast' or 'marine' spaces are negotiated. Instead this research has attempted to trace the way in which spatial imaginaries are active at the level of language and knowledge within spatial policy-making processes through differential mobilisation of perceived spaces in place-framing. Its objective is to uncover <u>hidden</u> power and to enable power mechanisms to be not only recognized but made widely accessible. This aims to supplement and develop Healey's approach, liberating a focus on both spatial imaginaries and place frames as canvases for creative negotiations rather than pre-given structures encapsulating social and ecological relationships of dominance, exclusion, exploitation and destruction. In seeking to develop this analytical approach, the case studies support the claim by Richardson and Jensen (2003) that

> "a combined framework of a cultural sociology of space and discourse analysis can reveal the relations between the languages, practices and power-rationalities of policy discourses." (p.21)

The research addresses Lees' assertion that urban planning scholarship focused on discourse lacks any specific discussion of methodology, including the connection of text analysis to broader social meanings and potentials for action (Lees, 2004). It reveals how spatial imaginaries of the coast contribute to the generation of power to act through the framing of policy and indicates the labile way in which spatial identities operate within development policy. The study has developed and used a framework for the analysis of existing and emerging imaginaries in relation to the place-framing processes involved in spatial policy-making, as set out in chapter 2. It has enabled demonstration of the use of critical discourse analysis to identify spatial imaginaries, which could otherwise be extremely difficult to distinguish. Its approach relies on iterative exploration of policy texts and interview texts. As summarised in Boxes 2.2 and Table 7.1, the study further confirms Healey's observations that spatial imaginaries can be identified on the basis of key descriptive categories and analysed in terms of the scale at which they perform, the boundaries involved, presence and non-presence of actor interests and time relations.

McCallum and Hopkins (2011) proposed and tested a framework for using critical discourse analysis of planning documents across time, as discussed in chapter 4. In addition to other aspects, they explored changes in the ways that space was conceived in consecutive plans, using a similar approach to that of Healey (2007), as discussed in chapter 2. This points to similar potential to develop discourse analysis of the spatial imaginaries, as defined in this study, over time, in particular locational contexts. Such a study would not have access to

interview transcripts, which were an important element of the empirical data used in this study, but the use of software such as Nvivo would enable the researcher to draw on a wide corpus of relevant policy and other written texts (e.g. committee reports, annual reports, discussion documents, media articles) to explore changing imaginaries of coast and the related discursive content. This longitudinal approach would be particularly valuable in examining the impact of the roll-out of marine and coastal policy in the coming decades.

This study demonstrates an additional use of discourse analysis, that builds on Healey's (2007) focus on the mobilisation of spatial imaginaries in the place-framing processes and uses an interpretive approach to the generation and analysis of data from interviews with policy actors, as described in detail in chapter 4. The identification of conflicting or alternative development discourses, based on these data sources (as summarised in Table 5.4 and Table 6.5), is integral to this approach. This enables the exploration of the discursive relationships generated by different representations of spatial imaginaries (see Figure 4.3).

Future Directions for Research

In this context, the findings of the study open up further potential to explore the role of policy actors in relation to different spatial imaginaries. Patterns of domination by the strategic interests of industrialism and property markets are effectively underpinned by the ways in which extant spatial imaginaries are mobilised in the policy-making process. A key question for future research must be: how can planning processes and planning policies become more open to alternative development discourses that empower local communities and foster the innovation necessary to achieve greater environmental and social sustainability? What might this entail in the form of new imaginaries and new place-frames? If planners, as Wagnenaar and Cook (quoted in Davoudi, 2015, p.324) suggest, "transform the historical, cognitive, emotional and experiential capital of a particular community in purposeful collective action", the nature and quality of transformation must be at the forefront of both practical and analytical attention.

The findings of this research point to the potential to uncover the role of the spatial imaginaries with which a place-focused policy network is working and to liberate these imaginaries not as constraints but as foci for developing social creativity and innovation, for forging new and productive relationships and for allowing alternative discourses into development debates. The conceptual framework used offers a basis from which to explore

empirical insights into mechanisms of power in planning practice, revealing ways in which dominant worldviews are not only reproduced but also distort and reduce potential for innovative and inclusive debate and alternatives. At the same time, it suggests potential for a major new agenda in action research for the discipline of spatial planning. Its focus would be the analysis of social processes of spatial description in specific development contexts and the potential for supportive interventions in enhancing participation, communication and innovation in development planning. This needs to be undertaken at multiple levels and the more that these can be explored in contexts of nested scales, the richer the analysis and practice insights could be expected to be.

This study focused on coastal imaginaries as a type of charged spatial imaginary with important relevance to spatial policy practice. Imaginaries of border, countryside and urban settlement or particular landscape types are also potentially significant in relation such analysis. Another type, of increasing interest and significance for spatial policy-making in the context of changing institutions, appears to be that of the river catchment. A recurring theme in the interviews was that a growing emphasis on the need for integration of flood management with habitat creation, restoration and management appears to mobilise conflicting spatial imaginaries, with, for example, the creation of wetland areas being perceived locally as 'making a mess'. Further research on interactions between emerging ecosystem approaches to flood management and the mobilisation of perceptions of the rural idyll could usefully draw on the methodological approach used in this study and could also be expected to overlap with a deepening understanding of coastal imaginaries.

In addition, during the course of the research, some areas of particular interest and opportunity for further research, which fell outside the scope of this particular analysis, were identified. These include:

- Discursive reframing of spatial imaginaries in the specific context of Local Nature Partnerships, which have been introduced in England with the explicit remit of developing cross-sectoral approaches to locally identified biodiversity issues and opportunities. The case studies indicate repositioning of policy networks that may be linked to constructions of new or emergent spatial imaginaries.
- Experience of developing cross-border interactions between LEADER groups in Dumfries and Galloway/Cumbria, based on recent liaison about the potential overlap in interests, not least in relation to the shared 'coastal area'.

- Further evidence underpinning the observation that transnational partnership boundaries for marine and coastal areas raise particular problems for habitat management and socio-economic development. This suggests that there could be particular opportunities for action-based research to develop appropriate institutional responses.

At the same time, institutional innovation through organisations like the Solway Firth Partnership, AONB partnerships, Southern Uplands Partnership and Tweed Forum has been identified as an important focus of this study's identification of conflicting development discourses. The findings point to further research potential based on these particular examples. While the case studies involved analysis of policy-making at the local scale, the study has emphasised interscalar, network relationships that direct further attention to the outcomes of national development and environmental policy for both land and sea. They raise questions, for instance, about the impact of key protective designations such as those included under the European Habitats Directive and National Parks. The potential for the conscription of national designations into exclusive and inequitable development discourses at local levels will require on-going critical observation.

Finally, further research on the experience of coastal imaginaries across different cultural contexts can be expected to build on literature on coastal discourses discussed in this review. This includes, in particular, recent work from Australia, New Zealand and Canada on insights into the enactment of cultural constructions of coast in development policy (Hofmeester, 2012; Ryks, 2014; Silver, 2014). Potential similarities with an imaginary of *Coast as Other* in UK development policy was one of the most intriguing findings of this study. This points to substantial scope for further research into coastal imaginaries in both the UK and internationally.

Annex: Introductory correspondence for interviewees

The following template was used in introductory emails to all interviewees, in order to establish the terms of confidentiality given to interviewees, clarify the research need for interviews to be recorded and to give a background overview of the research.

Dear {….}

PhD Research Project

Newcastle Institute for Research on Sustainability, Newcastle University

I am currently undertaking research at Newcastle University on how the understanding of coastal resources is changing within development policy-making.

As summarized in the attached overview, analysis of written policy and the views and experience of policy-makers is the focus of my work. Your input from the perspective of {post/organisation} would be invaluable. I would therefore very much appreciate the opportunity to interview you for an hour if that was at all possible?

I would be able to come to your offices at a time during the next six weeks that might be convenient to you. The content of the interview would be treated as strictly confidential. While my analysis depends on being able to transcribe a recording of the interview, once I've transcribed it, the recording would be deleted and any reference to the content in my thesis, or any related work, would always be anonymised.

I would be very happy to provide further details and look forward to hearing from you.

Yours sincerely

Jenny Crawford

PhD Research Student

Newcastle University

{see attachment}

Attachment:

Changing Governance for Cross-Border Coasts

Decision-making for coastal development and protection for the United Kingdom is undergoing fundamental change as a result of newly created, devolved, marine planning systems. This has far-reaching implications for the ways in which resources are allocated, used and conserved. However, it is not clear what impacts the new arrangements will have in creating new opportunities for integrated decision-making and management, especially where cross-border working is involved.

In this context, this research project will explore how coastal identities and issues are being constructed and transformed in development processes and their planning and management. The project will examine two key case study areas: the European Marine Sites, and related 'coastal' areas, of the Inner Solway Firth and Berwickshire/North Northumberland. Its focus will be on the perceptions and narratives of professional development and environmental policymakers, regulators, managers and political representatives who are directly involved in shaping and delivering policy frameworks.

The research aims to provide early insights into a fast-changing arena of environmental planning and management and highlight innovation and challenges. A final draft of the thesis is scheduled for submission by 2016.

Researcher: Jenny Crawford's first degree is in biological sciences and she has over twenty years' experience working as a chartered urban and environmental planner in Scotland, England, Northern Ireland and the Republic of Ireland.

For further details, contact Jenny Crawford at j.e.j.crawford@ncl.ac.uk (mobile: 07840 199237) or Professor Simin Davoudi (Supervisor) at simin.davoudi@ncl.ac.uk

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