

Social resilience, place and identity in the small-scale North Norfolk “Cromer Crab” fishery, UK.



Carole Sandrine White

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Abstract

Fishing once defined many coastal community identities around the British Isles. Over recent decades, these communities have faced the decline of their fishing industry in addition to demographic, environmental, economic change and a changing policy context in coastal areas focused on marine conservation and economic growth. Using a qualitative case study of a small-scale crab fishery, in North Norfolk, famous for its iconic 'Cromer Crab', I investigate place identity and attachment and their implications for social resilience. Like many coastal fishing towns, Cromer has become less reliant on fishing and the future of the fishery, central to the town's identity, appears to be in question. Although the fishing community has been reduced, the remaining Cromer crab fishermen could be considered resilient. I identify the different livelihood strategies fishermen have adopted in order to continue fishing and explore the trade-offs each strategy involves. However, given the significant entry barriers new fishermen face, the future of this fishery appears bleak regardless of the strategy selected. The conceptual approach used allows the relational dynamics of coastal communities experiencing change to be drawn out, enabling a deeper analysis of social resilience. It challenges some of the implicit ideas in the social-ecological resilience and place attachment literature on collective action. It questions the extent to which fishing communities can collectively respond to change and influence fisheries governance. While the social and cultural importance of small-scale fisheries are recognised in national and European policy, the limited participation of fishing communities in their governance continues to hinder their sustainable development and social resilience. The insights from this case study are particularly relevant given recent changes to the management and use of marine space in the UK and highlights the need to broaden debates on social resilience and sustainable development by considering the governance context and relational dynamics of coastal communities experiencing change.

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Abbreviations

CEFAS Centre for the Environment Fisheries and Aquaculture Sciences

CEO Chief Executive Officer

CFP Common Fisheries Policy

CPR Common Pool Resources

DEFRA Department for Environment Fisheries and Rural Affairs

EU European Union

EFF European Fisheries Fund

ESTA Eastern Seafish Training Association

EMFF European Maritime and Fisheries Fund

FLAG Fisheries Local Action Group

IFCA Inshore Fisheries and Conservation Authority

MCAA Marine and Coastal Access Act

MCZ Marine Conservation Zones

MAFF Ministry of Agriculture, Fisheries and Food

MMO Marine Management Organisation

MP Member of Parliament

MPAs Marine Protected Areas

MSFD Marine Strategy Framework Directive

MSY Maximum Sustainable Yield

NFFO National Federation for Fisheries Organisations

NGO Non-Governmental Organisation

NUTFA New Under Ten's Fishermen's Association

NN North Norfolk

NNDC North Norfolk District Council

NNFLAG North Norfolk Fisheries Local Action Group

NNFS North Norfolk Fishermen's Society

PLC Public Limited Company

SES Social Ecological Systems

SLA Sustainable Livelihoods Approach

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Chapter 1. Introduction

1.1 Introduction

Many coastal towns and villages around the UK, such as Cromer, are associated with a history of fishing which forms part of their identity. However, like many inshore fisheries around the UK and Europe, the North Norfolk “Cromer Crab” fishery has been profoundly affected by social, environmental and demographic change. Yet, Cromer crab fishermen have continued their work by responding and adapting to these changes, indicating some level of social resilience. However, what are the implications of this apparent resilience for the future of fishery and those involved? As other studies have shown, small-scale fisheries are often considered a significant part of coastal places by residents and visitors (Urquhart and Acott, 2014). However, given the changing context of coastal places, to what extent is fishing still part of their identity and what might the implications be for coastal communities if fishing becomes marginalised? If, as it has been argued, place identity and attachment are central to community resilience (Fresque-Baxter and Armitage, 2012; Amundsen, 2013), this poses important questions for the development of coastal areas and their governance. In this thesis, I explore how fishermen have responded and adapted to change and what this means for the future of the fishing community and coastal places. I use this case study to explore how different people relate to place, how this shapes their responses to change, and governance processes aimed at achieving sustainability. I suggest that place can be useful in terms of exploring the subjective and relational dimensions of responding to change and in particular in deepening an understanding of social resilience. In this Chapter I briefly introduce the rationale and context for this study ending with an overview of the thesis structure.

1.2 Social resilience and place: understanding livelihood adaptation

The discourses around how coastal communities respond to change in the UK and elsewhere have been increasingly shaped around ideas of resilience, not just in fisheries, but also in how communities respond to disturbances such as coastal flooding or climate change. For example, the UK has adopted a ‘Strategic National Framework on Community Resilience’ in the context of responding to emergencies (UK Cabinet Office, 2011). Underlying this strategy is the idea that the community is best placed to respond to crisis, and that that the state should ‘[en]able people to help themselves’ (p.3). Resilience has therefore come to represent a new paradigm for policy and development practice in the study of social and environmental change. While the concept of

resilience can be useful, a number of important questions have been raised by academics concerning the application of resilience to social systems. More critical questions need to be asked about resilience of what, resilience to what and resilience for whom, which require an understanding of the power dynamics, values and agency in the 'social system' (Lebel *et al.*, 2006; Robards and Greenberg 2007; Leach, 2008).

1.2.1 The role of place and identity

The intrinsic values of places and identities have been suggested as fundamental in how people adapt and cope with change (O'Brien, 2009; Adger *et al.*, 2012). This has led to calls for the recognition of the subjective limits to adapting to change including place and identity (Marshall *et al.*, 2012; Adger *et al.*, 2012). A sense of identity can contribute to feelings of belongingness, which is crucial for community well-being and social cohesion (Rollero and de Piccoli, 2010). It has also been suggested that the narratives people express about their communities and non-material aspects of culture, often reflect how different groups exercise power and control over resources (Jacob *et al.*, 2005).

In this thesis, I expose the dynamic nature of change and relationship to place, over space and time. I explore how social identity linked to place can help understand how groups (e.g. fishermen) collectively respond to change and their participation in fisheries governance. Place is also useful as a way to explore some of the hierarchical governance issues in fisheries starting from the local context which exposes the external influences arising from multiple levels of government. These themes represent relatively new areas of enquiry for understanding global environment change in which the role of place and identity in shaping adaptation and governance processes remains contested.

1.2.3 Application to fisheries

Many studies of small-scale fisheries have used social ecological resilience to explore livelihood responses and governance because the concept encapsulates many of the inherent characteristics of fishing communities: the dynamic interface between a social and ecological system, dealing with uncertainty and constant fluctuations in natural resources and markets (Gelcich *et al.*, 2006; Béné *et al.*, 2011; Neis *et al.*, 2013). However, so far, few studies of Social Ecological Systems (SES) resilience have explored the links between livelihood adaptation, governance and subjective factors such as place identity or attachment in fisheries. While there has been some research in forestry in the United States on the role of place in shaping well-being, local knowledge and values associated with resource management (e.g. pro environmental attitudes, resource stewardship) (Kusel, 2001;

Stedman *et al.*, 2004; Sampson and Goodrich, 2005), this has been largely absent from fisheries research. Exceptions are Marshall *et al.*, 2012 who have explored the role of place attachment in fishermen's capacity and willingness to adapt to change and Urquhart and Acott (2013b), who use place to argue for a recognition in policy of the 'cultural ecosystem services'¹ fisheries may deliver. The absence of taking a place focus more broadly in fisheries research may be due to the inherent challenge of defining the place in which the fishery and those involved occurs. At sea, the boundaries of the resource and fishing community are difficult to define as they are constantly in flux and often concern overlapping boundaries both on land and at sea.

1.3 Fisheries governance and social impacts in fishing communities

The social and environmental impacts of fisheries policy have been felt across Europe and are often linked to the UK's accession to the European Union, and a move towards a multi-level model of governance (Marks *et al.*, 1996; CCRI, 2011). From the heavily subsidised growth of the fishing industry in the 1980-1990s which led to overfishing and the collapse of North Sea fisheries, to funded vessel decommissioning and buy outs for fishermen to leave the industry in the 1990-2000s, fishing communities in the UK have been from boom to bust in a matter of decades (Hatcher, 1997). Today, even if many fish stocks have recovered and are at sustainable limits, there is a crisis in terms of recruiting new fishermen in the UK and across Europe, as in other parts of the world (Neis *et al.*, 2013). This represents a key tension in terms of policy objectives for coastal areas; on the one hand the need to rebuild and conserve marine ecosystems and on the other, to provide employment and industry to rural coastal areas. The social effects of fisheries policy on fishing families over the last few decades are visible with notable examples in Canada, Scotland, Norway and Northern Ireland (Newell and Omner, 1999; Nadel-Klein, 2000; Broch, 2013; Britton, 2013). In the debates leading to the most recent Common Fisheries Policy (CFP) reform in 2014, the social and cultural importance of small-scale fisheries to coastal communities was frequently mentioned by politicians and policy makers (EU, 2009). Usually, this was in order to justify the urgent need to conserve fish stocks in order to ensure a better future for fishermen who, it was argued in the CFP impact assessment, would be more prosperous in the long-term, even if their numbers would be significantly reduced in the short-term (EU, 2011; NEF, 2012). This fails to recognise the social reproduction of fishing practices, knowledge and traditions, which ensures the intergenerational continuity of fishing. As McGregor (2009) remarked, the "displacement of fishers from occupations that are the basis for social identity, of cultural heritage and of personal self-esteem raises fundamental questions about

¹ Defined in the Millennium Ecosystem Assessment (UK National Ecosystem Assessment, 2011) as "the nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences".

the trade-offs between conservation, development and the human right to a distinctive and culturally informed way of life” (p.8).

As I observed when I worked as a Fisheries Policy Officer for a Brussels based NGO in 2011, local fishing and coastal communities were absent from policy debates. Aside from those representing large-scale industrial fishing interests, vocally and eloquently in debates in the European Parliament or lobbying policy makers behind the scenes, fishermen – or at least small-scale fishermen- were not represented². This disconnect between local and European policy making and the exclusion of local knowledge and concerns from governance is one that is well recognised (Gray and Hatchard, 2003; Griffin, 2009, Mackinson *et al.*, 2011). As Symes and Phillipson (2009) explain, small-scale fisheries have been left out of European policy – even if they are inevitably affected by it – and their management is primarily left up to the Member States.

In addition to fisheries policy impacts, significant changes have occurred in many coastal communities in the United Kingdom over the past few decades (Williams, 2008; Britton, 2012). Their social fabric and make-up has been altered through demographic and social change (e.g. increased youth mobility; rise of second home ownership; out-migration of local young people; in-migration of older ‘outsiders’) and through physical changes to the natural environment (e.g. erosion, flooding), and built environment (e.g. coastal development such as wind farms) (Martindale, 2012; Colburn and Jepson, 2012, Rodwella, *et al.*, 2014a). Many of the changes to coastal areas are likely to have influenced relationships with place. While fishing has had a significant role in people’s lives and place identity in coastal areas, the decline and contraction of the fishing industry, and its replacement by other economic activities, now poses some fundamental questions for local communities and governing bodies which will guide their future development.

1.3.1 Missing social values

The concern that social values associated with small-scale fisheries are missing from European Fisheries policy has been expressed by social scientists working in this field (Symes and Hoefnagel, 2010; Urquhart and Acott, 2013a). As Symes and Phillipson (2009, p.2) asked: “What is it about fishing communities that makes them a crucial yet vulnerable asset for the future of the fishing industry and coastal regions?” The challenge for researchers and decision-makers is that this social and cultural value cannot be meaningfully put into numbers or presented as a single figure because

² with the exception of two small NGOs International Collective in Support of Fishworkers (ICSF) and Coalition for Fair Fisheries Arrangements (CFFA) supporting artisanal fishermen globally

it varies locally. The variation that exists in fishing communities, their social history and organization is perhaps as diverse as the natural resources they depend on. The sense of place and purpose associated with active fishing places and the sense of loss following declines in the fishing industry, in places such as Lowestoft in Suffolk or Fecamp in Normandy is evident but cannot be quantified and is therefore difficult to integrate into policy and decision-making (Acott and Urquhart, 2014). Thus, the social impacts on fishing communities and coastal places have continually been missed or insufficiently recognised in policy impact assessments.

Small-scale fisheries in the UK were long assumed to be insignificant in terms of numbers and economic contribution (Ota and Just, 2008). Official data on the fishing industry excluded under 10 metre boats until 1992 because before then there was no requirement for 'small boats' to report their landings (Hatcher, 1997). However, even today and despite a decline, the small-scale fishing sector represents over 80 percent of the UK fleet in number of boats and production (MMO, 2014). Despite this, their contribution to the local and national economy remains unaccounted for or underestimated because much of the value of small-scale fisheries is limited to the first sale value of landings and does not capture how value is added by fishermen, their families and others working on land. The result is that other maritime economic sectors have been encouraged by the national government to develop at the expense of small-scale fisheries (SSF), perceived to be of lower significance to the economy.

1.4 Case study introduction: Norfolk 'Cromer Crab' fishery

Cromer is a town that, like many others on the North Norfolk coast and other parts of the UK, has been subject to high levels of change including environmental, economic, social and demographic change and where new industries have developed (e.g. seaside recreation, offshore energy). The 'Cromer Crab' fishery is a relatively well known small-scale traditional fishery. In the last few years, its fishermen expressed concern over a proposal to establish a Marine Conservation Zone (MCZ) on their fishing grounds, the development of offshore wind farms and other marine industries, and by increasing fishing pressure from larger migratory fishing vessels from other parts of the UK to the Norfolk coast. At the same time, North Norfolk fisheries were selected for European funding resulting in community partnerships being set up in 2011 with the aim of enhancing and supporting local fishing businesses. As part of this, fishermen have discussed whether to apply for an EU labelling scheme for their fishery, and how to improve the recruitment of young men into the fishery.

Therefore, the Cromer crab fishery offers a rich opportunity to explore some of the issues which are prevalent in many coastal communities around the UK and Europe.

I will connect some of the insights from this case study to multi-level relational aspects of social resilience and governance. I challenge some of the implicit ideas in the resilience literature on collective action in how communities respond to change and influence the governance of natural resources they depend on. In particular, I contribute to debates on the application of social resilience in policy and practice by critically examining resilience through a place lens. This work provides theoretical insights into issues around the shared governance of natural resources and links to wider fisheries policy discourses in the UK, in Europe and in other similar contexts around the world.

1.5 Thesis Structure

The main conceptual question of the thesis is: “How can taking a place lens help to deepen an understanding of social resilience in coastal fishing towns and communities?”

In particular, how can this help to:

- explore the social construction of what is valued in coastal fishing places?
- explain the experiences and responses of coastal fishing communities to change?
- evaluate fisheries governance and the role of institutions for adaptation to change?

I make the case for how a place lens can inform understandings of how fishing communities respond and experience change; and help to expand our understanding of how fisheries are valued in a broader societal context. I aim to contribute critical insights around the concept of social resilience, at a time when policy, practice and programmes are increasingly seeking to ‘build resilience’ in the absence of an appropriate evidence base.

1.5.1 Overarching theoretical questions

In this thesis I begin by outlining my conceptual framework which draws on literature on social resilience, place attachment and identity, livelihoods adaptation and participatory governance. I outline the theoretical basis, which underpins this study, and the key research questions addressed. Subsequently, I describe the methodology I used to address these questions, detailing the overall approach adopted and the methods employed. In Chapter Four, I introduce the context of the study in more detail examining the environmental, social, economic, political and governance contexts of change in the Norfolk crab fishery. This provides the foundation upon which the four subsequent

analytical chapters build (Figure 1.1). Chapter Five presents an analysis of fishermen’s responses to change, focusing in particular on the livelihood strategies fishermen have employed and the relationships they have drawn on to enable adaptation. In Chapter Six, the focus is brought to one of the identified threats to the future of the fishery, the intergenerational continuity of fishing, and some of the relational and structural mechanisms that mediate access into the fishing industry. Chapter Seven explores how coastal residents and visitors perceive change in Cromer; and explores the relationship between the fishing and the coastal community. Chapter Eight uses four examples to demonstrate how and to what extent inshore fishing communities are able to shape their future in the current governance context, and identifies the key factors that enable and constrain the fishing community’s ability to effectively respond to change. The final chapter, the Conclusion of this thesis, brings together a summary of the study findings and details the key conclusions of this study, their theoretical and conceptual contribution, and their wider policy relevance.

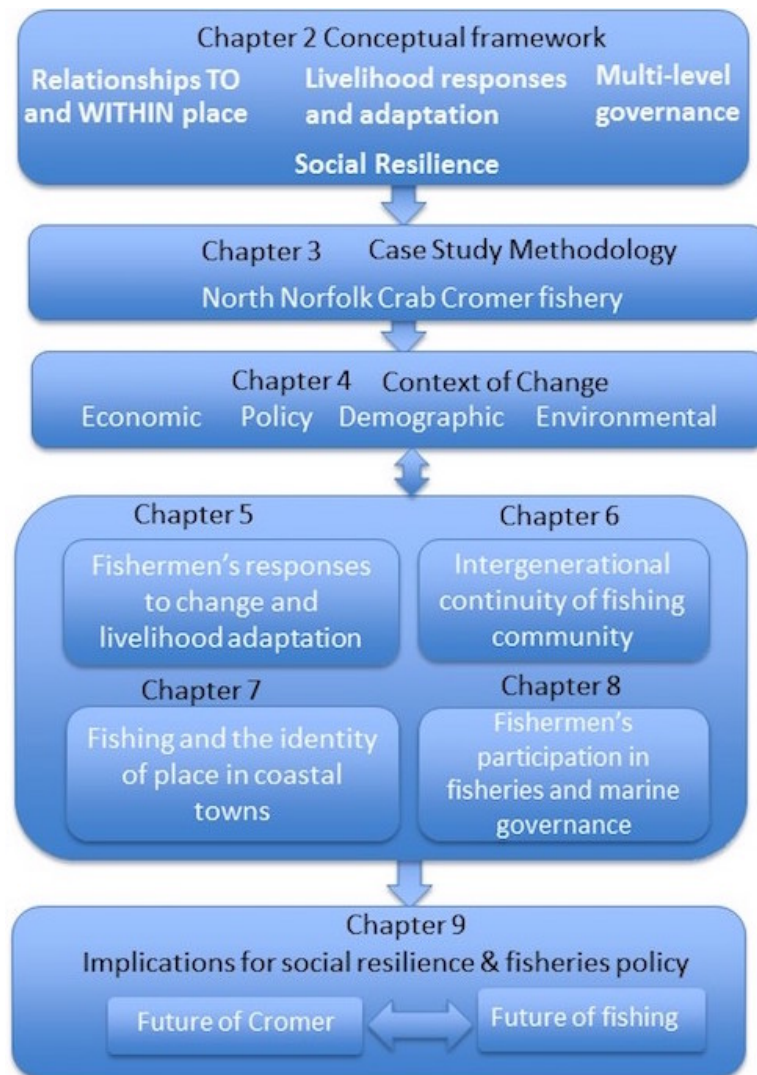


Figure 1.1 Thesis Structure and Chapters

Chapter 2: Conceptual framework

2.1 Introduction

Coastal fishing communities that have experienced change and responded in such ways that have allowed them to cope, adapt or transform – and essentially continue fishing - can be considered examples of ‘resilient communities’. However, over the past few decades UK fishing communities have declined in number across the country and there are now important questions about their future. This will have wider implications for those coastal towns and communities that depend on and identify with fishing. The core theoretical interest of this thesis is how different people relate to place and how this shapes livelihood responses to change mediated through institutions.

In the next section, I will explain what I mean by resilience and discuss some of the relevant components of resilience for my study (Section 2.2). I then provide the justification for using place as a lens in my research and I outline how a framework based on concepts from literature on place, livelihood adaptation and natural resource governance can be useful to raise questions about the use of social resilience as an approach (Section 2.3). In Section 2.4, I explore ‘Social Constructions and Valuation of Place’ introducing core place concepts including place identity, place attachment and place meanings. The final part of 2.4 looks specifically at how these ideas apply to fishing communities, particularly with relation to identity construction around occupation. In Section 2.5 ‘Experiences of and Responses to Change’, I discuss how change is experienced within place and how livelihood responses are shaped by relational aspects of place, particularly at a household level. Finally, in Section 2.6 ‘Governance for Adaptation’ I end by looking at the role of institutions in responding to change. I pay particular attention to how the state and civil society shape fisheries governance and the way in which this in turn powerfully shapes the options for adaptation in fisheries. In the final part of this chapter, I discuss the utility of the literature explored for this research and map out how I explore the main research questions in this thesis.

2.2 Resilience as a new paradigm for sustainability

As several scholars have remarked, resilience is replacing sustainable development as an objective in many policy areas (Leach, 2008; Magis, 2010; Béné *et al.*, 2012; Brown, 2013). While the sustainability discourse aims to manage resources to meet the needs of the present and future generations, the emphasis of resilience is on managing risk, vulnerability and enhancing adaptive capacity to deal with future shocks. Resilience as applied to natural resource dependent

communities came from ecology (See Appendix 1.1 for more discussion). This led to the idea of social-ecological systems (SES) resilience which put very simply “is about people and nature as interdependent systems” (Folke *et al.*, 2010, p.23). It links changes in the social system to the ecological system and vice versa. The definition of resilience adopted in the SES literature – and one that is perceived as contradictory by its critics is to “absorb disturbance and reorganize while undergoing change”, and at the same time “retain essentially the same function, structure, identity and feedbacks” (Walker *et al.*, 2004, p.6). The idea of SES as one system also implies that social resilience is linked to ecological resilience. However, as Adger (2000) posited, the resilience of an ecosystem does not necessarily result in a more resilient society and vice versa. The factors involved in ecological resilience are not clearly related to those which enhance social resilience. Therefore, it is important to consider ecological resilience separately to social resilience even if feedback will necessarily exist between an ecosystem and a society that depends on it. Next, I turn my focus to ‘social resilience’, which is critical for sustainable development and natural resource governance (Folke, 2006).

2.2.1 Social resilience, livelihoods and natural resource governance

Applications of social resilience have grown and been used to study: community responses to natural hazards and disasters (e.g. droughts, floods, earthquakes); livelihood responses in natural resource dependent communities following resource collapse, scarcity or variability and responses to economic or political crises involving social, policy and institutional change (e.g. Adger *et al.*, 2002; Marschke and Berkes; 2006 Cox and Perry, 2011). However, despite the popularity of resilience in academic and policy circles, and its promise to provide a holistic approach for developing programmes addressing issues of sustainability, a number of significant criticisms exist, particularly when the concept of social resilience is used (Manyena, 2006; Bahadur *et al.*, 2010; Davidson, 2010; Cote and Nightingale, 2012; Béné *et al.*, 2012; Keck and Sakdapfolrak, 2013; Fabinyi *et al.*, 2014). Resilience has attracted criticism when applied to social systems, particularly with respect to the emphasis on social capital and collective action as necessary for successful adaptation or transformation (Adger, 2003). Critiques argue that resilience framed in this way is normative and does not give sufficient consideration to individual agency³, power struggles or the differences within communities and thus overstates the capacity for local institutions to resolve adaptation challenges fairly (Cote and Nightingale, 2012; Béné *et al.*, 2012; Brown and Westway, 2011; Fabinyi *et al.*, 2014). A further discussion and summary of some of these criticisms can be found in the Appendix 1.2 and 1.3.

³ Agency is defined as the capacity for and degree of choice that individuals can exercise (Lister 2004)

As the use of the concept has developed so have the components in its definition. Adger (2000) provided an early definition of social resilience as: “the ability of communities to withstand external shocks to their social infrastructure” (p 347) which he later extended to “individuals, groups or communities” as “the ability [...] to cope with shocks and stress as a result of significant changes in *social structure and livelihood*, without significant upheaval” (emphasis added, Adger, 2002, p.358). Of note in the second definition is that social resilience can occur at multiple levels; from the individual to the community, the local to the regional (Marschke and Berkes, 2006; Freshwater, 2015). The concept of livelihood recognises that individuals and households draw from different resources in order to engage in activities that enable them to pursue their goals, such as achieving a satisfactory income and quality of life (Scoones, 1998). However, livelihoods are not simply determined by the availability or distribution of natural resources but by how these can be accessed. Ribot and Peluso’s (2003) ‘theory of access’ highlights how agency is constrained by rights based, structural and relational mechanisms. Institutions determine who has access to resources which is mediated by financial capital, social identity, labour opportunities and the market. The role of institutions in enabling or constraining adaptation is also clear in the resilience literature: “*social resilience is institutionally determined*, [as] institutions permeate all social systems” (Adger, 2000, p.354). As is apparent above, there is a close link between the SES resilience literature and livelihood adaptation and the capacity to adapt, which I discuss briefly here and later in this chapter⁴.

“[Adaptation] usually refers to the process, action or outcome in a system (household, community, group, sector, region, country) in order for the system to better cope with, manage or adjust to some changing condition, stress, hazard, risk or opportunity’ (p.282; Smit and Wandel, 2006). The concept of ‘adaptive capacity’, is simply the potential or ability of a system, community or individual to adapt to change.⁵ The determinants of adaptive capacity have tended to emphasize objective elements such as economic resources, technology (e.g., warning and prevention measures), information and skills, as well as institutions (Smit and Pilifosova, 2003, p.895-897). However, adaptive capacity is also subjective and relational (Brown and Westway, 2011) as it depends on the capacity to accept and pursue change which may be influenced by past experience, new opportunities and future expectations (Clark, 2012). For example, Marshall and Marshall (2007) found that an individual’s potential adaptive capacity, depended among other factors on a

⁴ Similarly to resilience, adaptation also has origins from several different disciplines (reviewed in Smit and Wandel, 2006; Clark, 2012) from its use in ecology, ‘natural adaptation’ in Darwinian evolution, to its use in psychology where it is used to mean how individuals are able to cope with trauma or stress.

⁵ Adaptive capacity has been particularly prominent in work on climate change and used in the resilience literature.

willingness to accept change and perceived associated risks. Other adaptive capacity contributors suggested in the literature include “possessing creativity and innovation (for identifying solutions or adaptation options); testing and experimenting with options; recognizing and responding to effective feedback mechanisms; employing adaptive management approaches; possessing flexibility; being able to reorganize given novel information; managing risk and, having necessary resources at hand” Marshall *et al.*, (2012 p.2). Adaptive capacity and therefore social resilience is likely to vary greatly among individuals or groups and responses to change may lead to different livelihood and well-being outcomes within a community.

2.2.2 Resilience for whom, to what and how?

As was clear in the definitions of social resilience –resilience needs to be explicitly specified in relationship to scale. It can be at an individual, community or even regional level but there is implicitly a consideration of spatial and temporal elements. Furthermore, while these early definitions refer to *an ability* (reflecting skills and knowledge) to cope and withstand shocks, social resilience is now understood as *a capacity* (reflecting a broader range of factors) to respond to change in three ways: coping, adapting or transforming (see Appendix 1.1.1). If this is applied to livelihoods, coping will involve individual or households absorbing a shock and attempting to carry on as normal, while adapting to change would require some incremental adjustment in an aspect of livelihood and transformation would signify a complete shift in livelihood. At a community level, responding to change may be facilitated by government institutions or collective action where individuals from the community work together in a more organic manner, often referred to as ‘self-organization’ in resilience work. This element is somewhat reflected in Marshall *et al.*, (2012)’s definition of adaptive capacity as ‘essentially the potential to *mobilize existing resources necessary for adapting to change*” [emphasis added] (p.2). ‘Community resilience’ has been used for this referring more precisely to the unit of the ‘community⁶’ as responding to change by drawing on communal resources to overcome adversity and take advantage of new opportunities (Norris *et al.*, 2008; Berkes and Ross, 2013, Amundsen, 2013). The concept of community resilience has come from research on disaster and risk, from psychology and mental health, where there is more focus on agency and self-organisation, people-place connections, social networks, knowledge and learning (Brown and Westaway 2011; Berkes and Ross, 2013). Its focus, in contrast to more household or individual orientated approaches to social resilience, is on community resources and puts the emphasis on the collective nature of adapting to change.

⁶ Defined further in Methodology Chapter, section 3.2.3 and in section 2.4.4 (this Chapter).

Berkes and Ross (2013) propose that focusing efforts on resilience at the community level offers a way forward for building SES resilience. However, as Davidson (2013) argued, efforts to explicitly engage with concepts of agency and power still need to be made. She rhetorically asks “How do we bring a theory of agency into studies of community resilience? We can start by not taking the interests and actions of community residents for granted, but rather bring those interests and actions, which are enormously diverse, into our research” (p.23). Sustainability has suffered from the same kinds of questions: “What should be sustained?” (Gale and Cordray, 1994). The implication is – for resilience as with sustainability – that researchers need to question who decides on and defines the valued characteristics that should be retained (Adger, 2000; Robards and Greenberg 2007). Simplistic approaches to SES resilience tend to assume that views and levels of acceptance across members of the social system are homogenous and that their objectives are shared, rather than exploring the complexity and social differentiation that exists.

This leads to another related criticism of resilience: its lack of consideration of the winners and losers. One person’s resilience may be someone else’s vulnerability, or resilience at one scale may compromise that at another (Leach, 2008). A systems view of the SES approach tends to mask the internal factors in communities, which influence adaptability through which reorganisation, learning and innovation stages of transformation occur. While there is some recognition that particular individuals can play essential roles including leadership, strategic vision and supporting social relations (bringing together knowledge, shaping social memory) (Folke, 2006), analyses of resilience in SESs often fail to explicitly consider the power struggles, which are likely to occur during these processes between individuals and groups with varying interests. As Cote and Nightingale, 2012 ask: “What is the role of power and culture in adaptive capacity?” (p.479).

Resilience is clearly not value neutral, particularly when the diversity of individuals and groups are considered across different places and over generations. There is a need to recognise the role of power in processes of change and that resilience has a political dimension. It has been suggested that this necessitates the involvement of local people in deliberating over their goals and what trade-offs are considered desirable and which are not (Lebel *et al.*, 2006). In addition to collective action, governance⁷ and the role of governing institutions is made explicit in Nelson *et al.*,’s (2007) definition of ‘adaptation’ applied to SES: “as the decision-making process and the set of actions undertaken to maintain the capacity to deal with future change or perturbations to a social-ecological system [...]. At the collective level, process and action are predicated on effective

⁷ Governance: ‘the totality of interactions, in which public as well as private actors participate (Kooiman, 2003: p.4). See also 2.6

governance and management structures” (p.397). These governance structures are embedded and likely to exhibit wider realms of power and as such their politics needs to be a matter for research.

2.2.3 A consideration of place for exploring social resilience

Place attachment and place identity have been raised as important factors for understanding the subjective factors that influence how people adapt and respond to change (O’Brien, 2009; Adger *et al.*, 2012). As early as 2001, Adger concluded that “the nature of adaptive capacity is such that it has culture and place specific characteristics that can be identified only through culture and place specific research” (p.14). A study of relationship to place, even if it has long been omitted, is a core element of social resilience. However, although the role of place has started to be linked to resilience, it is not yet fully included in resilience thinking (Adger *et al.*, 2011). It provides a lens through which to understand what people value about their environment and may have an important bearing on governance and on individual or collective action. As a recent literature review by Fresque-Baxter and Armitage (2012) suggested, place is a useful starting point for developing value-based approaches for understanding how people adapt to change, through its role in shaping identity, subjective well-being and collective action. In addition to this, a consideration of place has also been called for in the governance of natural resources (Cheng *et al.*, 2003) including fisheries management, which as a renowned fisheries scientist wrote “if it is to lead to anything sustainable, must take into account the places of people in its logic” (Pauly, 1999, p.360). A place lens can allow “voice to [be given to] meanings and values that may not otherwise be expressed in natural resource decision-making processes” (Cheng *et al.*, 2003 p45). Furthermore, if as Etzold *et al.*, (2012, p.192) posit institutions shape “the symbolic value or meaning of a particular place”; “set the boundaries of distinct spaces; [...] determine the ownership, access to” and “the relations between different places”, then a focus on place can shed light on how adaptation is constrained or enabled by different institutions. Taking place as a conceptual lens allows a focus on the context of people’s lives within which every day and long-term decisions are being made in different parts of society. I now outline my framework and explain how place can be a useful lens for understanding livelihood responses to change and its interaction with governance, allowing for a deeper debate of social resilience.

2.3 Outline of conceptual framework

My framework is developed under three themes which can help deepen an understanding of social resilience. Each one considers contributions from the literature on place, livelihood adaptation and natural resource governance. I elaborate on each of these in Sections 2.4, 2.5 and 2.6 and show how these are linked in the final part of this chapter.

- **Social Constructions and Meanings of Place**

Places provide the setting and context for social relations to develop and for identities to be constructed (Proshansky *et al.*, (1983). If SES resilience is about maintaining 'identity' and function (as in the Walker *et al.*, 2004 definition), then this implies that the identity and function of a place is broadly recognised. Knowing what particular places represent and mean to different people is essential if we are to infer the well-being implications of adapting to changing places. A place lens can be helpful to expose what is valued by whom and who identifies with what, which can help raise political questions associated with resilience.

- **Experience and Responses to Change**

There is growing evidence suggesting that how individuals and communities relate to places considered important to them plays a key role in how they experience and adapt to changes in their environment (Marshall *et al.*, 2012; Adger *et al.*, 2012). It has been suggested that community based responses to changes or shocks can depend on the level of community attachment or 'sense of community' that exists (Hummon, 1992, Norris *et al.*, 2008). Using a place lens to look at livelihood responses can help draw out the more subjective and relational aspects of adaptation, which the livelihood and resilience approaches tend to miss and help to consider the relationships between fishermen and the wider community they belong to.

- **Governance for Adaptation**

Fisheries governance has often been criticised for being too hierarchical and for failing to consider the local level where livelihood adaptation occurs (Griffin, 2009). Calls have been repeatedly made for fisheries governance to be more participatory and devolved to a local level, involving fishermen in order to improve the resilience and sustainability of fisheries (Mackinson *et al.*, 2011). A central theme in the place literature is that places can inspire people to take collective action (Cheng *et al.*, 2003). This has led to some assumptions in how shared natural resources should be governed, which has implications for livelihood adaptation and resilience. A place lens helps to shed light on power relations and differentiated values on the 'politics of place' present in natural resource governance.

2.4 Social Constructions and Meanings of Place

Place has been a focus of studies from different disciplines from rural sociology, human geography, environmental or social psychology and natural resource management. Perhaps because of the disciplinary diversity in the place literature, attempts to theorize place over the past 40 years have tended to focus on determining causal links between place constructs⁸ e.g. that place attachment forms and is followed by place identity or vice versa (Gifford and Scannell, 2010; Lewicka, 2011). One of the main criticisms by place researchers themselves is that this has led to a conceptual muddle and lack of unity in this field (see Lewicka, 2011 for a review). Rather than reviewing different strands of literature and debates over definitions, I explain how I use different place concepts, how I consider they are related to each other and in what ways they can be useful for understanding people's relationship with places.

While different disciplines emphasise different perspectives and privilege different methodological approaches⁹, what they do have in common is the centrality of place to people's lives; as Devine-Wright (2013), put it "that physical locations have ontological importance, being more than a mere backdrop to social phenomena" (p.62). Relph, a phenomenological geographer who, along with Tuan (1974), is often credited as contributing to conceptualising place in the field of geography¹⁰, considered places to play a crucial role in well-being, in providing people with a purpose and meaning in their lives. Relph (1976) considered that places are fundamental to what it means to be human and in shaping how people act: "To be human is to live in a world that is filled with significant places: to be human is to have and know *your* place" (p.1, emphasis added).

My interest is in how place - defined as 'space that has been given meaning through personal, group or cultural process' (Low and Altman, 1992, p.5) - enables social interactions and shapes behaviours and actions in response to change. Of particular interest is why and how different places are meaningful to different people. Both questions are likely to be important for understanding social resilience in that they can help us understand how different people respond to change. Although I mostly focus on place identity and place attachment, I also discuss and define linked concepts

⁸ Several key concepts are prominent in the place literature: sense of place, place attachment, place dependence, place meaning and place identity. The relationship between these and their exact definition varies. In some cases, sense of place is a composite concept and in others it is a sub-concept.

⁹ While environmental psychologists have focused on developing multidimensional scales for place concepts, attempting to develop measurable indicators and understand what factors contribute to a sense of place, human geographers have centred more on qualitative approaches.

¹⁰ While geography had focused more on place as location, Relph and others were interested in the study of place through lived experience.

including place meanings, place dependence and sense of place. At the end of this section, I come back to these ideas centred on relationships to place and within place and what this means for fisheries.

2.4.1 Relationships to place and within place: Place identity and place attachment

Tuan (1974) coined the term 'topophilia', the love of place, emphasising the emotional bonding between people and place which is often referred to as 'place attachment'; the "bonding that occurs between individuals and their meaningful environments" (Scannell and Gifford, 2010, p.1). This can fulfil a human need of belonging somewhere, having a place where one feels at home. Place attachment has been linked to community attachment or 'sense of community' (Hummon 1992; Trentelman 2009) which may bring people together to achieve common goals (Norris *et al.*, 2008; Hanna *et al.*, 2009). However, the literature around place attachment also denotes a certain degree of helplessness associated with dependency, the 'rootedness' people have in places which may or not fulfil their needs and wants. The concept itself is, in a sense, static providing the impression that a place can dominate and shape someone's life.

Place attachment has been shown empirically to be associated with perceptions of neighbourhood cohesion, length of residence in a place and property ownership (Brown *et al.*, 2003). Intensity of experience in a place is also important and the attachment non-residents can feel to places has been demonstrated (Stedman, 2006). Environmental psychology research has shown that place attachment can vary significantly between individuals. Although place attachment has a positive connotation, individuals can also express an aversion or indifference towards a place even after having spent long periods of time in it. Forms and levels of attachment can range from feeling alienated in a place, termed 'non-attachment', to deep emotional bonds where one is prepared to sacrifice everything for a place (Shamai, 1991; Hummon, 1992; see Appendix 1.4). In fact, place attachment is different to place satisfaction and studies have shown cases where people are not necessarily satisfied with where they live, but nevertheless attached to their neighbourhood. For instance, young people in rural areas may be attached to where they grew up but not satisfied with living there because their friends have moved away or because they cannot find work locally (Glendinning *et al.*, 2003). Another construct, place dependence, refers to the extent to which a place fulfils someone's needs or how well somewhere allows one's goals to be achieved compared to other places in such a way that "no other place will do as well as this one"¹¹ (Jorgensen and Stedman, 2001). However, a high level of place dependence may or not relate to being satisfied with

¹¹ As defined by Stokols and Shumaker, 1981 in Jorgensen and Stedman, 2001

the place in question or feeling emotionally attached to it. This illustrates how relationships to place are more complex than a simple place-person bond as the concept of place attachment initially suggests.

Scholars such as Low and Altman (1992) suggested that place attachment is deeper than just an emotional experience; it involves belonging and being in a certain place, which reflects identifying with a place and others in it. Place identity – which engages with these ideas - was conceptualised by environmental psychologists Proshansky *et al.*, (1983) as a sub-structure of self-identity, or in other words, it explains how a place contributes to the construction of one's identity. It is important to note that 'place identity' is conceptually different to the 'identity of a place' or 'sense of place'¹², which Relph (1974) more broadly considers how a place is perceived as being collectively and by individuals. Proshansky, *et al.*, (1983) considered that the role of places in human psychological development had been neglected and that different places can influence a person's identity throughout their lifecourse. Other research from child development and psychology of learning has found that recognizing a place as a learning environment is important for education outcomes and in the process of socialization. For example, for fishermen stable learning environments could be at school, at home, in a training centre, on the beach or at sea.

Place identity, as other types of identity are, is multi-faceted (Kelty and Kelty, 2011). Who someone considers they are changes as they move from one place during their everyday life and over their lifecourse (Manzo, 2005). That places help shape one's identity in relation to others and how others perceive them is what Relph (1976) categorized as insidedness and outsidedness, the sense of belonging or not to a group associated with a place. This feeling of belonging and being identified with somewhere can provoke both positive and negative sentiments. For instance, someone may be proud of their place identity or on the other hand be ashamed of it or find their place identity restricts who they can be (Relph, 1976).

As I see it, the key difference between place attachment and place identity is that the former is used to explain the emotional bond people have with places while place identity refers to how people construct and express their identity in relation to place. However, the conceptualisation of place attachment by Low (1992) reflects that it is not just relationships *to* a place that are important but also relationships *within* place. This includes the symbolic relationships formed when people individually and collectively attribute meanings to particular places, reinforced through shared

¹² Sense of Place is shaped by the physical and material aspects of a place, the observable activities occurring in place, the meanings or symbols associated with place, and a more intangible 'spirit of place'.

cultural beliefs and practices in a particular place (Low and Altman 1992; Manzo and Perkins 2006). What is important in both cases, whether place identity or place attachment, are 'place meanings': how a place is interpreted and valued by someone. There is general consensus over the importance of place meanings and I turn to this next.

2.4.2 Valuing and constructing place: Place meanings and their function

If places are defined by their meaning, then studying place meanings is crucial to understanding relationships to and within place and explaining place based behaviour (Stedman, 2002). When a place has meaning, a person's relationship to a place and their role within that place can be defined – what activities or behaviours can or not be expected to occur within it (Proshansky *et al.*, 1983). However, places do not innately have meaning. Their meanings are constructed, although the extent to which physical and social factors contribute to this is debated. Stedman (2003) for instance, argued that the role of physical environment has been underemphasised. Physical and material aspects of place are indeed important - reflected by studies in urban planning or recreation - as they shape the physical space within which people can interact with each other and with nature. People also shape their own environment and relationally construct place meanings through what they do there and the rules and norms they develop within a place. Finally, place meanings and their constructions can be shaped powerfully by external influences particularly through processes of globalisation and mobility, which I return to in 2.4.3.

Place meanings may be hugely diverse and vary between different people. While in some cases, a group of people may hold shared place meanings, their significance may vary between individuals depending on their personal experiences, activities and observations. Manzo (2005) exposed the diversity and richness of place meanings through qualitative work, highlighting the "socio-political underpinnings of our emotional relationships to places" (p.67) which vary with gender, race, class and sexuality. Multiple meanings can be held by people for a place which may provoke positive or negative emotions and result in tensions between individuals if certain meanings are contested or privileged over others (Massey, 1994). That places will not mean the same to everyone or have the same importance to all is a crucial point. It is, as Manzo (2005) concludes, a fundamental question for place research and politics, and researchers need to consider the "full magnitude of the human experience into the current discourse on people-place relationships" (p.67).

So far, I have discussed different dimensions and the complexities of relationships to place and within place, but I have not focused on the function of these relationships. As I have touched upon,

places can be powerful in shaping individual and group identities. Recognising places as distinct from one another serves the function of reinforcing one's identity and purpose over time. Twigger-Ross and Uzzell's (1996) qualitative study on identity construction in the London neighbourhood of the Docklands, found that residents used the 'distinctiveness' of place to distinguish themselves from others. Exploring these ideas on distinctiveness further, Gustafson, 2001 remarked that 'distinction is not just about establishing uniqueness but also about categorisation, about telling what kind of place it is and thus what it has in common with other places' (p 13). Places that offer a sense of continuity and the potential for someone to achieve their long term goals, was an important contributor to a sense of stability, security and well-being in Twigger-Ross and Uzzell's study. Remaining in a place or similar type of place was central to both identity construction and agency. Continuity of place may be associated with activities and relationships which have current or historical importance and meaning. The reproduction of place meanings (or not) has implications for whether activities linked to a place continue (or cease).

2.4.3 Change, mobility and globalisation: questions of scale

An ongoing debate among place scholars is the role of place in the context of increased mobility, change and globalisation. Relph (1974) was particularly concerned about 'placelessness'- what happens when places become homogenized and devoid of authentic meaning. He cautioned that the weakening of distinct and diverse experiences and identities of places would have negative impacts on well-being. "If places are indeed a fundamental aspect of man's existence in the world, if they are the sources of security and identity for individuals and groups of people, then it is important that the means of experiencing, creating and maintaining places are not lost" (Relph, 1976, p.6). He considered that we must understand the distinctive and essential features of place and experiences of places if we are to create and preserve places that provide the significant context for people's lives – or in other words 'to build resilience' in the face of change.

Increased spatial mobility and place attachment have often been opposed in theoretical work (Gustafson, 2014). The concept of place attachment tends to emphasize how people take 'root' somewhere and how this helps foster community ties. In this sense, place attachment tends to relate localism or even parochialism, while mobility represents globalism and open-mindedness: to take 'route' (Gustafson, 2001). There is no doubt that places are and have been increasingly shaped by global processes, in terms of mobility, communication or culture. However, Perkins and Thorns (2012) argued that despite "being part of a global community" the need to belong and find meaning in places remains ever present. Massey (1994) has also challenged the view that mobility threatens

the significance of place in our lives. She suggested (along with Castells, 2010) that due to the increasingly networked world we live in, a 'global sense of place' is being formed: "globalisation in the economy, culture or anything else does not simply entail homogenization" (p.156). Instead, Massey argues that globalisation reproduces the already existing diversity of wider and more local relations.

These perspectives highlight the multi-scalar dimension of place, also important in resilience thinking. The key point is that place meanings are not fixed. Instead they are constantly evolving, being contested and reaffirmed. Places are shaped by global processes, which are in a sense uncontrollable, but people can also actively shape their places (Perkins and Thorns, 2012). Place meanings may evolve as the physical environment or social make-up of a place changes particularly as individual and group interests compete or converge (Gustafson, 2001). However, Massey (1994) points out some of the inequalities that are constructed and reproduced through place: "mobility, and control over mobility both reflects and reinforces power" (p.150).

In this section, I have reviewed several key concepts from the place literature which I summarise as contributing to 'relationships *within* place' and 'relationships *to* place' (see Figure 2.1). While place attachment is useful for describing the emotional bonding people have with place, it is criticised for being static. It does not sufficiently reflect people's resilience to changes within place through finding new places and new meanings or ways of relating to place. Place identity is useful for exploring how places can shape different people's identities, and better encapsulates the dynamic notion of meanings and the changing nature of relationships within a place. Global processes are increasingly shaping the nature of relationships to and within place. Given that coastal places are changing and small-scale fisheries are declining, research into what aspects of place mean to different individuals and groups and how they are valued is likely to be of importance for governance and adaptation processes in coastal communities. I next review existing literature which links fishing communities to identity and place.

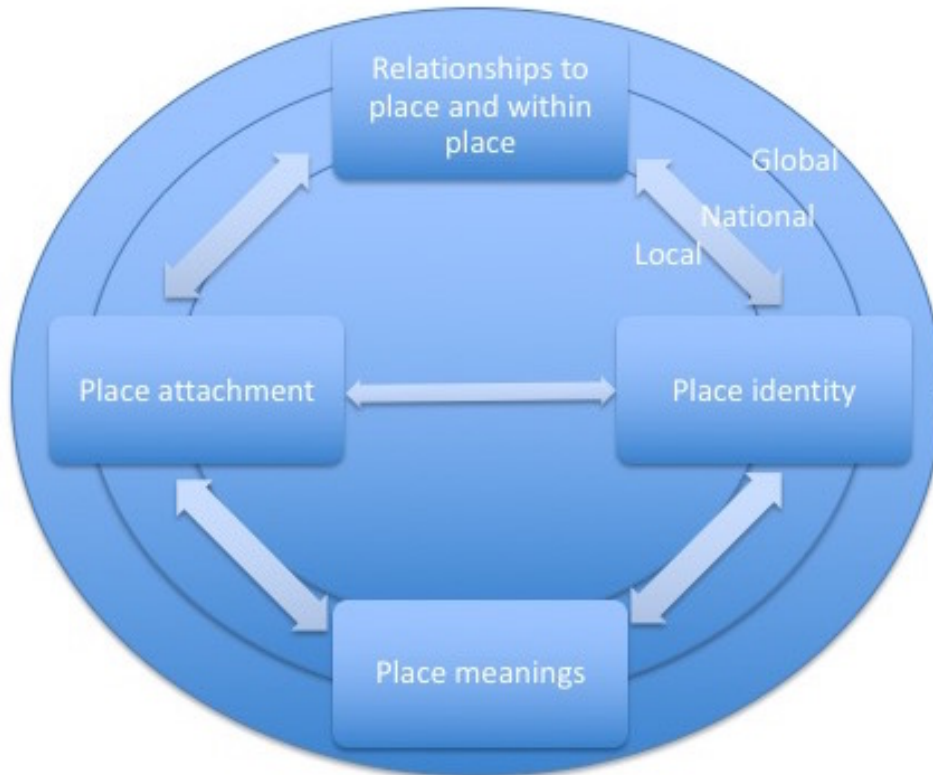


Figure 2.1 Relationship between place identity, place attachment and place meanings which are influenced by local to global processes of change.

2.4.4 Identity construction in fishing communities: place, occupation and dependency

In addition to the role of place in identity creation, fishers typically have a strong sense of individual and collective identity related to their occupation (Acheson 1981). A study of identity and fishing in Scotland, found that identity was influenced by the sea, by family and by the community (Williams, 2008). A relationship to the sea is particularly important to fishermen, and is unique to maritime occupation. This forms the basis of a shared identity among fishermen which is place-based in terms of the sea and is not necessarily tied to particular locations. The context and places within which fishermen learn to fish and become socialized into fishing plays an important role in this identity development. Kinship ties are of particular importance in fishing as in farming occupations, where recruitment and access to property, to a boat or land, is passed from father to son (Gasson, 1969; Acheson, 1981; Symes and Frangoudes, 2001; Lobley and Potter, 2004). Often identity is reaffirmed by fishermen's discussions over who is considered a 'proper fisherman' and is evaluated in terms of commitment to the job (Ota and Just 2008). Fishermen's identities are often framed in relation to the performance of masculinity including independence, physical outdoor work, seeking adventure and risk taking (Pollnac and Poggie, 2008; Power, 2008). This has often been referred to in literature

to explain why fishermen continue to fish even when it is no longer economically viable to do so (Van Ginkel, 2001; Daw *et al.*, 2012) and framed as an addiction or dependency on fishing (Creative Research, 2009). The stronger the attachment to fishing, the more difficult it becomes to change occupation when not only the “means of earning an income,” are lost but also “an important part of their self-identity” (Marshall *et al.*, 2007, p.364). Occupational attachment has been found to be a barrier to some forms of adaptation¹³ (Marshall *et al.*, 2012).

Identity is also shaped at a group level. For example, trawler fishermen spending weeks at sea are regarded differently to inshore day boats. Different types of fishing vary in their level of recognition by others (Ota and Just, 2008) which can shape who is seen as belonging to a group or community. Community is a particularly important frame of reference in livelihood adaptation and fisheries governance but one that can be notoriously difficult to define (Agrawal and Gibson, 1999). I understand the ‘fishing community’ as “an emergent property of social relationships that people create by taking advantage of cultural understandings and existing identities, geographical or otherwise” (p.430 Jentoft *et al.*, 1998). Following this definition, those who participate in a fishery cannot necessarily be considered to be a part of the same ‘fishing community’. Those fishermen with a long family tradition of fishing may be considered differently to ‘newcomers’ (Miller and Van Maanen, 1982). On the other hand, kinship or friendship bonds may exist between fishers from different ports who would consider themselves as part of the same group (Van Ginkel, 2001). This indicates how a fishing community is more than anything, constructed relationally, as ‘communities of the mind’ rather than place-based communities (Ross, 2015).

Ethnographic studies on the dynamics of fishing communities and households, have discussed the wider social impacts of changes in fishing dependent communities, including a perceived loss of identity following periods of restructuring and crisis, in Norway (Pettersen 1996; Gerrard 2000; Broch, 2013); in Scotland (Nadel-Klein, 2000; McKinlay and McVittie, 2011) and Atlantic Canada (Binkley 2000; Davis, 2000; Marshall, 2001; Jackson, *et al.*, 2007). Urquhart and Acott (2013a) conducted research in the UK and France on sense of place and identity in coastal places associated with fishing. In Hastings they found that “fishers have deep attachments to the fishing beach, called the Stade, which also defines their identity as individuals and as a fishing community” (p.45). Importantly, they discuss how other individuals in Hastings who did not fish, also “value the contribution that fishing makes to the character of the town and its importance for related industries such as tourism” (p.45). Material and physical aspects related to fishing such as the

¹³ This study found that place and occupational attachment were a barrier to transformational change

distinctive fishing boats on the Stade, and fishing gear helped to create a sense of place. However, they found that fishermen felt their identity was threatened and that they did not belong to a new culture developing in Hastings around art galleries. This shows how the meanings fishermen and their families hold and those held by other residents and visitors may be very different and pull in different directions.

The term dependency is often used to refer to rural communities. This can be misleading when this is limited to the contribution to GDP or a percentage of the population dependent on resource for their employment or livelihood (Symes, 2000). In economic terms, few UK coastal communities would be considered 'fisheries dependent' unless dependency is extended from the catching sector to related industries including processing or seaside tourism. For instance, while in Lowestoft the 'glory days' of the herring fishery are long gone and fishing is perceived to be in 'a state of almost terminal decline' (Brookfield *et al.*, 2005 p.66), the town still 'depends' on landings from outside the local fleet for its associated industries. When viewed in purely economic terms, dependency is often viewed as negative where reliance on fishing is linked to vulnerability and poor social outcomes such as low levels of in-migration, high rates of poverty and unemployment, low income and education (Stedman *et al.*, 2004). The policy response is often to diversify the local economy, reduce dependency, spread risk and therefore increase 'resilience'. However, other definitions of dependency include notions of cultural and social dependence reflecting place attachment and sense of belonging which often have more positive connotations (e.g. Nuttall 2000; van Ginkel 2001; Ross 2012). Several studies (e.g. Nadel-Klein 2000; Gerrard 2000) have found that the representation of fishing in the community can be significant, even after the main activity ceases. In Lowestoft, attempts have been made to support the industry through local projects and investment into tourism and fishing heritage, which provide alternative forms of employment to fishing (Brookfield *et al.*, 2005). In these cases, the main 'fisheries dependence' can be considered as the selling of the idea of fishing rather than fisheries production itself (*ibid*). However, place meanings may be weakened as they start to be manufactured and commodified leading to loss of authenticity (Nadel-Klein, 2000) or as Relph may have put it, placelessness. As coastal fishing places change, questions may arise around what the identity of a place is. If the role of place in developing a sense of being and belonging is important in enabling fishing communities to adapt to change, then how change is experienced may have important implications for resilience.

2.5 Experiences of and Responses to Change

I now turn to understanding how the relational aspects of place discussed in the previous section influence experience of and responses to change. Livelihood responses to change occur at the individual and household level and depend on available resources. However, fishermen's responses and experiences are shaped by their interactions with other members of the fishing community - who may or not live locally -and by those who live in the coastal community. First, in Section 2.5.1, I start by discussing how place influences experiences of change and place related behaviour including local level responses to change.

2.5.1 Experiencing and responding to changes in place

The disruption to place, to which one is strongly attached, may result in experiences of devastation as is documented in cases where people have been displaced due to war or natural disasters (Brown and Perkins, 1992), the sense of 'grieving for a lost home' (Fried, 1963). If places change that provide continuity, attachment, stability, and contribute to identity formation and well-being – as I discussed in 2.4 – then people are likely to experience change in powerful ways. For example, if relationships within place are related to a person's perceived ability to pursue goals: self-esteem¹⁴ and self-efficacy¹⁵ and offer continuity (Low and Altman, 1992, Twigger-Ross and Uzzell, 1996), then changes to place are likely to be experienced as threatening and result in various kinds of responses. For instance, individuals or communities can modify, maintain or protect place meanings so that their wants and needs can be pursued. Individuals often seek to influence how a place is in order to reinforce or affirm their self-identity or 'make this place their own' (Proshansky *et al.*, 1983). Ways of mediating change require environmental knowledge, competence and control – knowing what to do and how to behave in order to allow a person to continue their role in a particular setting (*ibid*). An example would be fishermen using fishing gear to mark out that this is a working fishing place. This highlights the active role that individuals or groups seeking to initiate or moderate change can take. If mediating change is not possible, a person may consider leaving the place or, think about changing their behaviour or activity in order to fit in. When places no longer offer the potential for a person's goals to be fulfilled or become associated with a negative experience, emotions such as anxiety can ensue and result in behaviours including place avoidance (Proshansky *et al.*, 1983).

¹⁴ an individual's positive feelings about themselves and their relationships within place

¹⁵ someone's belief that they can achieve their goals in a place

Proshansky *et al.*, 1983 developed the idea that every individual has an 'environmental past' grounded in good and bad experiences within particular places over their lifecourse. This environmental history has a role in one's identity and shaping their values, attitudes, and beliefs about the physical world. This may also contribute to a 'collective' environmental or social memory (important for adaptation) (Olick and Robbins, 1998). This may be particularly relevant for fishermen who accumulate knowledge through experience and observation, which they use to guide their actions on a daily basis. Relationships to place have also been linked to perceptions of environmental risk and have been found to lead to place-protective (Scannell and Gifford 2010) and pro-environmental behaviour (Hernandez *et al.*, 2010). Although Proshansky *et al.*, (1983) did not explore the circumstances that may lead to conflicts over place, examples of conflicts could include place protective or aggressive behaviour towards those perceived as outsiders and as threatening to the identity of a place. Examples of this, including studies looking at the high level of resistance and 'Not In My Back Yard' behaviour, towards planned wind turbines in the UK, were explained by degrees of place attachment (Devine-Wright, 2009). Other evidence following Hurricane Katrina showed how people worked together to rebuild their neighbourhoods by planting trees (Tidball *et al.*, 2010). This idea has been key to the community resilience literature on responses to natural disasters where place attachment stimulates people's efforts to regenerate and rebuild a community (Manzo and Perkins, 2006). Clearly, place has a role in shaping responses to change, at an individual and collective level which I explore next.

2.5.2 Categorising individual and collective responses to change

The livelihoods approach tends to focus on adaptation at the household level rather than on collective responses. Lister (2004)'s framework on agency is useful for examining and categorising which livelihood strategies are selected by individuals, households or as collective responses. It was recently applied to a fisheries context by Coulthard (2012) upon which I build by considering the role of relationships with place (Figure 2.2). Lister distinguishes between how individuals and groups make decisions enabling them to cope and adapt with changing circumstances or impacts. The model includes an everyday to strategic axis, and an individual to collective axis across which agency can be expressed. I apply this to a review of the literature of fisheries livelihood adaptation in the Section 2.5.3.

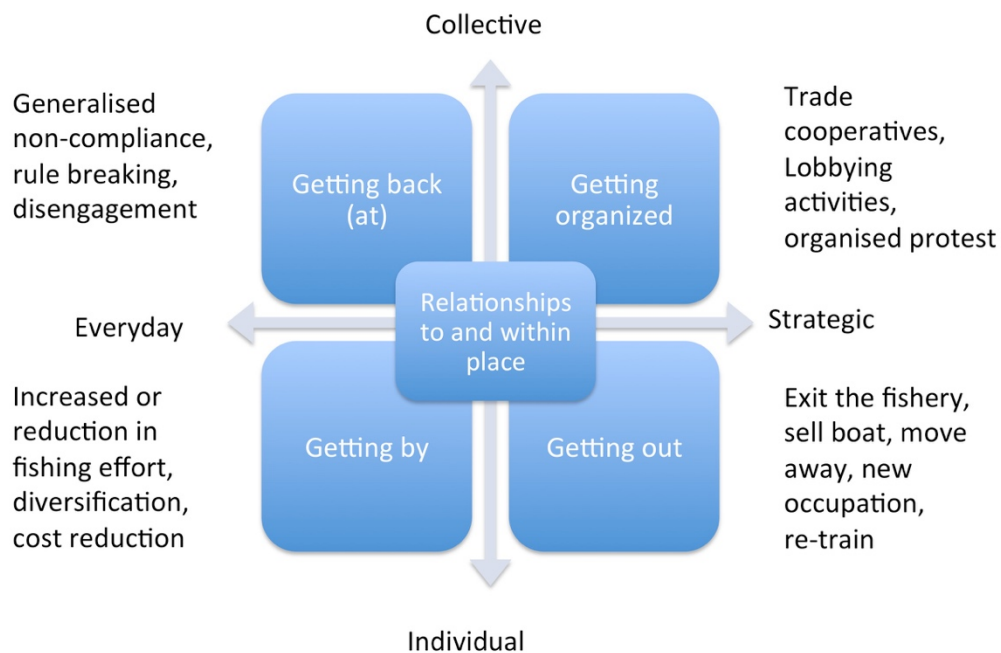


Figure 2.2 Lister's agency model applied to fisheries context. (Adapted from Coulthard, 2012 and Lister, 2004) with strategic and short-term actions; collective and individual actions, which are shaped by relational aspects of place.

Both 'getting by' and 'getting back at' are conceived as everyday reactions to a change or event. The action of 'getting by' is common to coping strategies in the livelihoods approach, where a household draws on its resources to adapt in the short or medium term. On the other hand, 'getting back at' actions tend to be collective, drawing on social networks and agreeing on a course of action. However, getting back at actions can be individual – not necessarily agreed formally with others – but become the accepted social norm by a group, for instance rule breaking among a group of fishermen working in an area. As I show in the next section, 'getting by' accounts for the majority of strategies in the fisheries livelihoods literature.

'Getting organised' and 'getting out' are both strategic decisions, which often link to aspirations people have for longer-term change. For instance, 'getting out' is an individual or household response rather than a collective one and may be motivated by parents wanting a different future for their children. While the individual end of the spectrum of decision-making involves others in terms of family, the collective end requires some involvement from civil society community or organizations

– for instance fishermen’s organisation. In reality, these strategies are not mutually exclusive and individuals may pursue multiple courses of action.

2.5.3 Household and gendered livelihood responses of fishing communities

The focus of the livelihoods approach has been on household rather than community responses to change. Examples of fisheries livelihood adaptation come from work in Scandinavia, Canada, and to some extent Scotland where fishing communities have experienced the fisheries’ closures or significant declines, and has shown how fishing families responded to change. Typically livelihood adaptation includes intensification or extensification, geographical mobility and/or diversification which in both cases require sufficient flexibility to pursue alternative livelihood strategies within or outside the community (Scoones, 1998; Allison and Ellis, 2001). In Norway, Pettersen (1996) found four main livelihood strategies employed by fishing families faced with a crisis in their fishing industry. ‘Expansion’ was categorised by households investing in growing the fishing business and increasing earning potential, by fishing further away or for longer. ‘Diversification’ was characterised by households taking up paid employment, often by the fisherman’s wife in order to allow fishing activity to continue. ‘Retrenchment’, on the other hand was where the household reduced fishing activity to cut down costs associated with the fishing business, often relying on family members for labour instead of paid crew. Finally, ‘withdrawal’ described those leaving the fishing industry, often relying on social welfare. However, Pettersen’s definition of diversification is incomplete. It relates to the diversifying sources of income which form part of the household income through ‘multiple job holding’ outside of fishing or ‘pluriactivity’ defined as “gaining an income from more than one economic activity” (Eikeland, 1999, p.360). As the sustainable livelihoods and development literature suggests, diversification can be a strategy for spreading risk and reducing vulnerability. Diversification is also used to describe adaptive strategies to derive additional income occurring within the activity of fishing including targeting different species or becoming involved in processing and marketing of the fish catch. For instance, Nova Scotian fishermen who experienced their fishery’s closure employed similar strategies to those identified by Pettersen but also diversified the species they targeted through fishing (Binkley, 2000), a strategy which could be considered closest to expansion following Pettersen’s classification. Morgan (2013) found that fishermen in the English Channel mostly responded to change by diversifying their fishing activity as well as through reallocating fishing effort, rather than diversifying out of fishing, which was taken up as a last resort.

While the focus has been on households as a whole, intrahousehold differences are important to consider (Allison and Horemans, 2006). While catching fish is predominantly men’s work, women

often play a crucial role in fishing households and businesses (McKinlay and McVittie 2011; Britton, 2012). Unfortunately, this is often underestimated with little or no recognition from governments in terms of employment status and contribution to the fishing sector (Zhao *et al.*, 2012). Feminist researchers (see Special issue of Women's Studies International Forum introduced by Davis and Gerrard 2000) have reported the unpaid role women have in running land-based aspects of fishing businesses, as well as the financial contribution women make to household income through paid employment. While the traditional fisher 'lassie' or fish wife is now something of the past (Nadel-Klein 2000), the role of wives or long-term partners is still crucial in supporting a fisherman's work, even if they are not involved directly in the fishing business. Without support within their household, fishermen's time at sea would be significantly reduced (Ota and Just 2008). In Newfoundland, fishermen's wives budgeted for the long-term welfare of their household when possible but also 'planned for the unplanned' through saving and spending strategies (Binkley, 2000). Following the cod fishery closure in 1992, households were obliged to take a short-term perspective in order to cope with changes in their livelihood. Though the concept of 'resilience' is not specifically used in this article, the language employed by Binkley (2000) closely resembles such thinking.

The development collective responses through fisher networks, often run by women's groups, has helped raise the voice of fishing communities politically through organising festivals or lobby groups (Skaptadóttir 2000; Britton, 2013). However, there are relatively few examples of fishermen developing responses to change collectively, at least in the UK, and even fewer where this has resulted in adapting to change rather than protest. What is perhaps more common is the transformation of a whole group or community through individual or household responses to change (Marshall *et al.*, 2012). For example, research in Scotland shows how the identity of coastal communities has rapidly transformed from a community focused around fishing to one centred on tourism, leisure and recreation industry (Anderson and Eklund, 1999; Nadel-Klein, 2000). In other parts of Finland and Norway, fishing has been largely replaced by work in the tourism sector (Salmi, 2005) or in offshore industries (Johnsen and Vik, 2013). Another example of this process of transformation in rural coastal communities is through demographic, social and economic change such as migration and coastal gentrification. On the one hand young people leave rural communities in pursuit of employment opportunities elsewhere and, on the other, city dwellers or pensioners move in attracted by comparatively low prices (Bjarnason and Thorlindsson, 2006). As a result, house prices in rural locations typically rise, encouraging young families to move away, leading to a widespread change in the local population (Colburn and Jepson, 2012).

As this section shows, livelihood responses to change are often focused at the individual and household level but can also lead to community wide change. Furthermore, institutions can play an important role in shaping the nature of individual and collective action which influences resilience.

2.6. Governance for adaptation

Adapting to change is not only a matter of local relational mechanisms, such as relationship to place, but also of access to resources, which are mediated by wider structural mechanisms. I now look at how responses by households and individuals are shaped, enabled or constrained through government and civil society. I define what I mean by governance and explain how institutions are understood before exploring some of the assumptions in natural resource governance and the role of civil society and the state in fisheries governance and livelihood adaptation.

2.6.1 Livelihood adaptation and Institutions

Opportunities for livelihood adaptation are enabled or constrained through the process of 'governance' which is defined as an outcome resulting from 'the totality of interactions, in which public as well as private actors participate, aimed at solving problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundation for all those activities' (Kooiman, 2003: p.4). This definition considers the range of actors involved in governance: the governors and the governed. In other words, governance is not just about government but also about community and civil society participation in decision-making and policy formulation. It involves a 'system-to-be-governed' and a 'governing system'. In the case of this thesis, the system-to-be-governed is the North Norfolk 'Cromer' crab fishery and includes the activity of fishing, interactions between fishermen and the natural resource, as well as related activities occurring on land, for example, selling their catch. The 'governing system' involves different institutions which may be set up by the state or be part of civil society or the community.

Inspired by Davies and Hossain's 1997 (p.8) distinction between informal and formal civil society, I use the term formal institutions to include "visible, legally recognised organisations and institutions" and informal institutions to mean "less defined and less visible rules and alliances based on kinship, caste, class and gender which operate within and outside the household." Importantly, these are recognised and known about by insiders but often not easily observable by outsiders. These more informal responses to change by community members are often ignored in political science

approaches, which tend to focus on the interactions between the state and civil society. Informal groups can however, develop into formal institutions as they gain more recognition. In fisheries, institutions include families, businesses, research institutes, and government agencies. These institutions can each establish the basis for reasonably expected behaviour and for carrying out tasks such as raising families, training new fishermen, processing and marketing fish (Jentoft, 2004). Some scholars such as Ostrom (1990) emphasise the regulatory role of institutions while others such as Scott (2013) stress their normative and moral dimensions. As well as establishing rules and norms, institutions have a role in validating and using knowledge which form Scott's three pillars for understanding institutions: regulative, normative, and cultural-cognitive. Institutions are therefore more than 'the rules of the game'¹⁶ which misses the cultural, normative elements on which institutions rely (ibid). Institutions both structure and are structured by social practices, social relations and other organisations. This also corroborates with Kooiman's (2003) views on the purpose of governance as "aimed at solving problems or creating societal opportunities", where institutions provide the contexts for this to occur and serve to establish "a normative foundation" for decisions to be made (Kooiman, 2003, p.4). Both Ostrom (1990) and Scott (2013) use the idea of nested institutions to express how forms of social organisation are connected to others. For instance, a fisherman is part of a kinship group with certain rules and norms, which is part of a community of fishermen who work from the same location or target the same fishery.

One of the tasks of governance is the decision-making involved in solving problems and finding opportunities (Kooiman, 2003). The kinds of problems fishers respond to and cope with include changes in the natural environment – the abundance and distribution of fish – and fluctuations in markets (Figure 2.3). Availability of and demand for particular species directly influences - what fishermen do as well as access to markets (Cinner and McClanahan, 2006). Global price fluctuations for fish but also other goods related to fishing such as fuel can influence fishing behaviour (Abernethy *et al.*, 2010). As the rural livelihood literature indicates, fishers employ a variety of strategies to maintain their livelihoods and increase security when faced with change and uncertainty (Davies and Hossain, 1997). In some cases, this can lead to unsustainable fishing or overfishing, and one of the roles of fisheries institutions is to manage this by enabling or constraining livelihood strategies using rules or by creating incentives (e.g. introducing quotas, or licences). As management interventions develop, fishers increasingly respond and adjust their livelihood strategies to these regulations – which sometimes leads to unsustainable practices through what are

¹⁶ While some of the literature focuses on how the behaviours and actions of different actors who are trying to maximise or attain their goals can be influenced by rules, other parts of the literature focus more on explaining how certain rules have developed and why and how this explains power relations for instance.

termed perverse incentives (e.g. encouraging competitive behaviour). Therefore, formal civil society institutions and particularly state organisations may be perceived as the answer - they have the capacity to find solutions - but they are also perceived as the problem (Jentoft, 2004). It is important to also note that governance processes do not always fail due to the internal workings of governing institutions. External factors such as poor funding or research, unsupportive or restrictive legislation or a lack of adequate resources and capacity, can hinder the effectiveness of institutions in finding solutions (Jentoft, 2004). Increasingly, as I will come back to, the mandate and activities of national fisheries institutions in Europe have been shaped through a multi-level governance model whereby fisheries policy, is primarily shaped by supra-national institutions (Marks *et al.*, 1996).



Figure 2.3 Livelihoods approach, multi-level governance and relationships to and within place. Adapted from the approach proposed by Scoones, 1998. Governance and institutions both shape and are shaped by relationships to and within place. They influence livelihood responses and outcomes by shaping the context of change, and mediating access to resources.

2.6.2 Assumptions about place relationships and natural resource governance

Much of the decision-making in natural resource governance is around the distribution and allocation of resources. How people use shared natural resources has been the subject of much debate and implicitly relates to people's relationships within and to place. The main tension in literature on governing natural resources relates to whether individuals are motivated by their own 'selfish' interests (e.g. Hardin, 1968) or by a collective interest in managing their resources sustainably (Ostrom, 1990). This has led to different conclusions about how resources should be governed, not only the kind of rules and norms but also the domain of governance with some advocating hierarchal governance and others a 'bottom-up' or participatory approach where local people take the responsibility for governance either fully (self-governance) or with the state (co-governance) (Gray, 2001). In some cases, it is appropriate for the state to delegate certain responsibilities to the local level for instance where a finer scale of place based knowledge is necessary. In fisheries, this may suit some resources more than others (e.g shellfish tend to be more sedentary and therefore more 'local' than fisheries targeting migratory species). In some cases, the state may be considered the most appropriate, for instance where an impartial, authoritative and overarching view is perceived as necessary for allocating fishing rights equitably. However, as Pretty and Ward (2000) or Ostrom (1990) pointed out forms of collective action exist around the world where natural resources are successfully managed without involvement from the state. Ostrom (1990) and Agrawal (2001) suggested that successful self-governance or co-governance was enabled when particular conditions were met. These included the *characteristics of the resource itself* (its size, boundaries, discounting, levels of mobility and uncertainty); *the characteristics of the community* (its size and boundaries; whether shared norms exist, social capital, poverty and inequality, leadership); *the institutional environment* (locally devised access and management rules that are simple and easy to understand, enforcement, accountability, graduated sanctions); and *the external environment* (technology, relationship to external markets and to the state).

The 'characteristics of the community' and the 'institutional environment' may be influenced by relationships to and within place. As Mosimane *et al.*, (2012) and Ratner *et al.*, (2013) argue getting organised and establishing institutions for managing common resources necessitates having a shared identity and a sense of community. This relates to ideas about place being the setting that enables the development of 'social capital' defined by Scoones (1998) as "the social resources (networks, social claims, social relations, affiliations, associations) upon which people draw when pursuing different livelihood strategies requiring coordinated actions" (p.8). The argument is – as I mentioned in 2.5.1- is that where there is a strong attachment to and identification with place, cooperative

behaviour can be expected among individuals, leading to collective resource management and the development of coping and adaptation strategies (Amundsen, 2013; Ross *et al.*, 2010). This also has parallels with literature relating place to collective action, where degradation is attributed to alienation or exclusion from a place and a strong sense of collective place identity is predicted to increase stewardship towards place and natural resources (Chapin and Knapp, 2015). Based on these premises, both the sustainable livelihoods approach (SLA) and common pool resources (CPR) literature have concluded that natural resource governance may be more sustainable when it includes and gives more control to local resource users. This has also resulted in a “strong normative message from resilience research [that] co-management and decentralization are best suited to promoting resilience” (Nelson *et al.*, 2007, p.409) also formulated by others in relation to fisheries (Pomeroy and Berkes, 1997; Armitage *et al.*, 2009; and Berkes, 2009). In particular, resilience scholars have argued for adaptive co-management which encourages flexibility in developing management measures and an openness to using diverse opportunities (Olsson *et al.*, 2004).

However, the assumption that natural resource dependent communities are best suited to design effective institutions for collective resource management is predicated on the premise that the primary concern of these communities is the environment and they are in tune with nature and its fluctuations (Fabinyi *et al.*, 2014). These authors argue, as Cote and Nightingale (2012) also have, that human environmental behaviour is also driven by economic and wider societal challenges. Furthermore, place relationships cannot only be assumed to result in collaboration and a sense of stewardship necessary for adaptive co-governance and resilience. A place and its associated community may also be perceived as ‘resilient’ through a resistance to change as people strive to maintain the bonds that they are attached to. In these circumstances, place attachment may result in conservative feelings, and be considered to impair rather than facilitate resilience (Norris *et al.*, 2008), through a reluctance to accept change leading to protest and tensions. In addition, it cannot be assumed that the community as a whole will strive for the same goals. This points to some of the political tensions that arise in applying the concept of resilience to a community. As (Cheng *et al.*, 2003 p.87) suggests debates over natural resource governance and allocation “is as much a contest over place meanings as it is a competition among interest groups over scarce resources”.

2.6.3 The role of the state and civil society in participatory fisheries governance

Participatory governance includes local people and civil society directly in governance outcomes. It includes co-governance, self-governance and community partnerships (Gray, 2001). While participatory governance is advocated in CPR and SLA literature for achieving sustainability, the

extent to which this occurs in Europe is limited. European fisheries governance tends to be characterised by a multi-level, hierarchical mode of governance where fisheries are considered to be a public resource. Participation is generally advocated in fisheries for three reasons: as a matter of justice and equity, in order to broaden the knowledge base for decision-making, and to improve the legitimacy and potential compliance of any regulations that are agreed (Gray, 2001). This last point is particularly relevant in fisheries where fishermen do not readily accept command and control mechanisms put in place by the state, which is perceived as restricting their freedom and independence – one of the main motivations for becoming a fisherman. In theory, if decisions are reached collectively, greater support and compliance can be reached if a sense of ownership is developed through a participatory process (Jentoft, 2000). In theory, the more strongly a group identifies with shared values and has a collective sense of commitment towards them and to each other, the more likelihood they have of finding common solutions that are socially acceptable (Ostrom, 1990). This is important in common resources such as fisheries where enforcement can be inherently difficult due to the nature of the resource, causing ‘wicked problems’ for governance (Jentoft and Chuenpagdee, 2009). While in other modes of governance, legitimacy lies in following formally established processes, legitimacy in participatory governance is in principle based on how and to what extent stakeholders are involved in decision-making (Gray, 2001; Fraser, 2009). It is based on the premise that decisions must be collectively reached and include the wisdom of all rather than be limited to the knowledge of experts (Gray, 2001). Instruments are developed to give traction to the vision and values of those involved in the governing process (Kooiman, 2003). In fisheries, these could include a marine reserve, certification, fishing gear limitation, or fishing quotas. Ultimately their success depends on the level of support that exists.

As McCay and Jentoft (1996) note, there are some important considerations to be taken with regards to domain, representation, and communication, which will determine how successful participation is in delivering its intended outcomes. In addition to communication there is a need for sufficient deliberation over the aims of governance. I examine these aims here.

Domain

European fisheries are an example of a policy area which has shifted towards a multi-level governance model since the development of the common market in the European Union (Marks *et al.*, 1996; see Figure 2.4). As McCay and Jentoft, 1996 point out, there are often interesting questions which expose power dynamics around what responsibilities are delegated and which are not. Instead of increased devolved power in fisheries governance, an attempt to move towards participatory

governance is more common. While decentralisation is the basis for community based management or co-management, participatory governance means involving a range of civil society and local community representatives in decision-making and does not necessarily also mean devolution of authority. A multi-governance model suggests that shifting the control of certain decisions to a supra-national level can protect states from dealing with unpopular decisions (Marks *et al.*, 1996). This has also shifted control over natural resource governance away from local level where livelihoods are carried out.

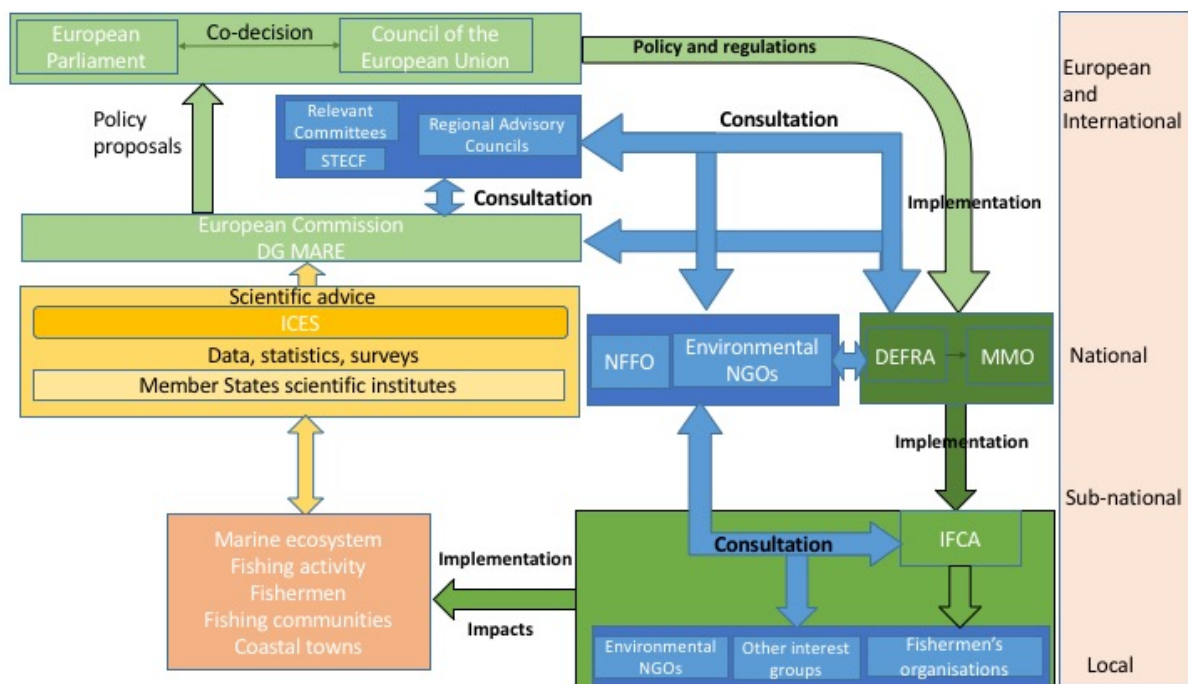


Figure 2.4 Multi-level fisheries governance from European level to local level is indicated in the right-hand column. Green indicates government institutions, policy making and implementation. Blue indicates institutions that are consulted on policy. Yellow indicates the institutions involved in developing evidence used in decision-making. Peach indicates the marine ecosystem, fishermen and coastal fishing communities and towns who are impacted by policy and on which scientific data are collected.

Writing at a time when the Common Fisheries Policy was being reformed in 2002, Allison expressed the hope that “With the trend towards withdrawal of the state from inshore fisheries management and a new EU Common Fisheries Policy that emphasises regional decision-making and greater participation by fisherfolk, the informal institutional arrangements and livelihood strategies that have survived may now grow in importance and once again emerge to help secure the continued viability of inshore fishing”. (Allison, 2003, p 53). However, while the ‘regionalisation’ of fisheries governance has occurred to some limited extent through the creation of Regional Advisory Councils (for biogeographic regions e.g. the North Sea RAC) and more recent initiatives to aid local fishing communities to develop sustainably through Fisheries Local Action Groups (at county level e.g. North

Norfolk FLAG) the RACs or FLAGs have, as yet, had limited effect in giving more voice or control to local fishing communities, particularly for inshore small-scale fisheries (Linke and Bruckmeier, 2015).

Representation

Who is represented in government and civil society organisations will influence what knowledge and values are brought to discussions and the outcomes of governance. Therefore, how representatives are elected or appointed is important. As I mentioned in 2.4.4, fishing communities are not one homogeneous group and their nature, which is socially constructed, cannot be assumed. However, governments tend to miss this relational dimension and assume that the fishing community is defined by working in the same fishery or in functional terms based on those who use the same type of gear. Individuals who are not members of community or civil society organisations may not be represented in governance with decisions being made without their views and concerns being considered. Other members of the fishing community for example, fish merchants, processors, restaurants and fishing families may be left out of governance if they are not thought of as 'stakeholders'. At the same time, individuals such as community elites can seek to influence decision-making outside of any formal participatory processes. Participation has been increasingly broadened out in Europe to include recreational users such as divers, sea anglers, wildlife enthusiasts, but also more generally local residents and coastal visitors. However, as more groups are included in governance, this can weaken the quality and nature of participation and can often lead to fishers feeling that their voice is being diluted by the presence of other interests which they may not regard as legitimate stakeholders in fisheries governance (McCay and Jentoft, 1996; Fraser, 2009). What is discussed and how it is communicated is shaped by who is represented in decision-making. Therefore, who is included or excluded in participatory governance is crucial but, it is not the only factor in determining the outcome. For instance, the different power relations between those involved in governance can lead to no more than an 'illusion of inclusion' (Few *et al.*, 2006) and in the worst of cases, what is presented as participation is in fact no more than government consultation (Pieraccini, 2015).

Communication

Before being able to find a solution for a problem, which Kooiman (2003) explains are social constructions, a problem has to be defined. The aim of governance is to create the necessary conditions to allow for an ordering of the problem - its definition - from the "chaos' of subjective experiences" (ibid, p 137). This process of defining problems is discursive and involves different opinions and perceptions being expressed, brought together and supported through different

knowledge claims. If differences in perspectives by different stakeholders are to be expressed and deliberated over, then communication is key. However, technical language can alienate fishers particularly when the information provided by scientists or other 'experts' is given more weight than the more tacit knowledge held by fishermen. Tuan (1974) gives an example of how scientists can powerfully shape which places become protected over others by choices they make over what to measure and how. As Jentoft (2004) notes knowledge is power but the reverse also applies. Powerful actors are able to put across their views and select what knowledge to share. This is important because how the problem is defined influences what kind of solutions and opportunities are sought. However, societal governance issues are often multi-dimensional and cannot necessarily be easily characterised (Fraser, 2009), described as inherently 'wicked problems' in fisheries (Jentoft and Chuenpagdee, 2009). Two common types of problems are routinely addressed through governance include moral or other normative questions and questions around risk and vulnerability (Kooiman, 2003). For instance, in fisheries, government institutions often discuss stock assessments with a view to achieving a balance between maintaining a fishing industry but avoiding biological stock collapse. The role of institutions as forming a normative basis for governance is theorised by both Scott (2013) and Kooiman (2003). This is developed as problems are discussed and solutions sought. Jentoft *et al.*, 2010 argued that it is not problem definition itself that guides the governance processes but the ideas and assumptions about how the system should be. If, as Jentoft *et al.*, (2010) assert, underlying narratives shape the outcomes of governance, an examination of these narratives and how these lead to policy development is essential.

2.6.4 Narratives and discourses shaping fisheries governance

Different ideas, or 'images' as Jentoft *et al.*, (2010) discussed, can influence government agendas for fisheries and their valuation in place. For example, Hardin's view in 1968 of individuals rushing to exploit open access resources motivated by their own selfish interest leading to collective ruin and environmental degradation significantly influenced fisheries policy and regulation around the world. It led to economic incentives being allocated through market based measures such as quotas and licenses. As Jentoft *et al.*, (1998) had reflected in earlier work, such narratives often become self-fulfilling particularly when they start to give direction to decision-making. If the prevailing view is that coastal communities are doomed, or 'a thing of the past' then efforts to invest in or better manage fisheries are likely to be abandoned.

Current narratives that have been shaping European fisheries policy over the last decade include one of an overfishing crisis, unsustainable fishing practices including discarding and trawling, and the

need to restore the marine ecosystems. Another objective of the Common Fisheries Policy was to encourage ‘thriving coastal communities’ creating growth in small-scale fisheries¹⁷. This responds to a call for the preservation of small-scale fishing communities for their social and cultural value (Urquhart and Acott, 2014). Narratives from other policy areas can also affect how fisheries are considered by the state in governance processes. For instance, Marine Spatial Planning has now replaced the Integrated Coastal Zone Management and has resulted in the sea being divided up into areas for development, resulting in inshore fisheries being side-lined. The concept of Maximum Sustainable Yield (MSY) – a theoretical model for fisheries management popularised in the 1950s which allows the level of optimal fishing effort to be calculated - has come to the fore in European fisheries policy over the last decade¹⁸. It has led to political commitments being set to ensure all fisheries are exploited below MSY by 2020 (EU, 2008). This is despite the many criticisms from fisheries scientists over the risks of using MSY as a target, including Larkin’s (1977) seminal article “Epitaph to the Concept of MSY”. Resilience thinking is seen as an alternative to MSY where SES resilience recognises the uncertainty and fluctuations present in the environment (Berkes, 2003). Until now, resilience is used in European fisheries policy to express stability. This highlights that decision-making is not only guided by knowledge, by the facts, but is to a large extent influenced by what views are held and shared during the governance process. The process by which different and often conflicting ideas and values are taken into account and prioritised is therefore a political matter rather than being simply a technical question. The future of fishing places and those who make a livelihood from fishing has the potential to be largely affected by narratives developed in places and by governance processes that are far removed from them.

¹⁷ COM(2011) 417 final. Communication on the Reform of the Common Fisheries Policy

¹⁸ A target of achieving MSY in fisheries around the world by 2015 was set at the 2002 Johannesburg World Sustainable Development Summit. In 2006, the European Commission issued a communication on implementing sustainability of EU fisheries through maximum sustainable yield. COM (2006) 360 (final).

2.7 Conclusion and Research Questions

A place lens provides a useful way of exploring the relational dimensions of resilience that are associated with place across social and spatial scales. The ways in which places are variously understood can shape how people experience change depending on their relationships to place and with place. This can be powerful in shaping responses to change particularly through institutions, which set the rules and norms for activities. However, institutions can have a strong influence on places and their communities. They may constrain livelihood adaptation particularly when their rules and norms do not reflect the values and needs of local people. The participation of local people in governance may enable livelihood adaptation and promote social resilience. However, this is not as simple as it sounds due to the diversity of values and interests that different people have. Exploring how people relate to place can help to expose these differences which has implications for governance. This may be particularly useful where a multi-level model of governance is dominant, as it is in the case of fisheries, where the focus of governance is often disconnected from local sustainability concerns and rather emphasises global concerns of intergenerational equity.

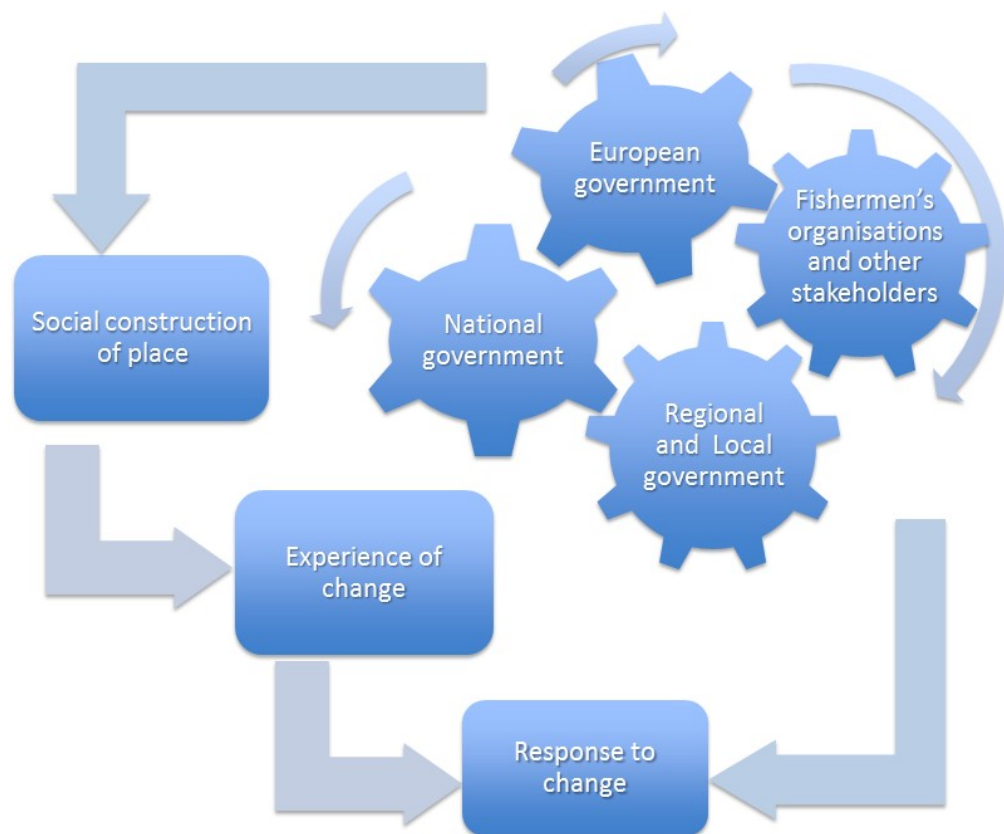


Figure 2.5 Conceptual diagram of how theoretical parts of the thesis are linked. The ways in which places are socially constructed influences how change is experienced. Responses to change are shaped by relationships to and within place but also influenced by governance processes occurring at multiple levels.

The central aim of this research is to look closely at how fishermen in the Norfolk Crab fishery have responded and adapted to change and what this means for both the future of the fishing community and the future of the coastal towns where fishing activity takes place. As such, there are three core foci around which I group the questions explored in my thesis:



Figure 2.6 Core theoretical research questions and sub-questions explored in thesis

Finally, what can this teach us about the development of fishing communities in East Anglia, the rest of UK and other similar communities facing similar drivers of change around the world? The main theoretical contribution I make is to debates on social resilience, questioning and deepening the concept through a case study showing the use of place as an analytical lens. This is important in light of the increasing number of programmes seeking to 'build resilience' in policy areas including fisheries. Finally, this thesis relates to debates on governance, which have recognised the need to favour approaches based on strengthening 'community' and locality in a wide range of policy areas. With respect to both, this thesis uses a critical social relational perspective that allows the exposure of difference, inequalities, power relations and conflicts. A place lens allows these to be exposed, as I will show in my empirical chapters. Next, in Chapter Three, I outline my methodology and start to introduce my case study.

Chapter 3 Methodology

In this chapter, I outline the methodological approach and methods used in this study. Firstly, I outline my epistemological position in relation to this research. I explain how my methodology fits with my conceptual approach (Section 3.1). I explain my choice of case study and how the data generated from this case study methodology enabled me to explore the questions in subsequent empirical chapters. I provide some context to my case study area and community (Section 3.2). I then describe the research methods I used (Section 3.3), how the data were handled and analysed (Section 3.4). Finally, I discuss the ethical considerations taken into account when conducting this research and some reflections on the research process (3.5).

3.1 Research approach

A methodology is 'the logic' through which particular research questions can be answered (Mason, 2002). Choice of methodology is determined by the nature of the intellectual puzzle and is guided by the underlying ontological assumptions of the researcher. My experiences prior to starting this thesis were important in shaping my research interests and approach. Prior to starting this PhD at UEA, I worked as the Fisheries Policy Officer for an environmental NGO based in Brussels, Seas At Risk, when the Common Fisheries Policy (CFP) was being reformed for the third time. I also worked on research projects in the UK (Balanced Seas Marine Conservation Zone Project) and in France (CHARM project on fishing and sense of place). Both involved talking to people in coastal fishing towns along the Channel and North Sea.

My research interest is in how relationships *to* place and relationships *within* place influence how people in fishing communities experience and respond to changes, and the implications of place for governance and the social resilience of fishing communities. This research is inspired by the phenomenological approaches to the study of place in human geography (e.g. Tuan, 1974; Relph, 1976). Taking 'place' as a conceptual lens allows a focus on the context of people's lives within which every day and long-term decisions are being made by different institutions that mediate opportunities for adapting to change. However, my own approach is closest to 'critical realism', recognising that reality is stratified and has ontological depth. My epistemology considers that the construction of social reality consists of three domains, which include the empirical (which can be observed by humans), the actual domain (which exists in time and space independently from the

observer), and the real (underlying power structures and mechanisms which may not be consciously observed) (Collier 1994; Bhaskar, 1997).

This research required a methodology that would enable the collection and generation of explanatory and exploratory data from a localised setting, allowing an in depth understanding to be grounded within a particular place and context. A case study methodology is particularly suitable for this purpose, and is defined by Yin (2014, p.16), as “an empirical inquiry about a contemporary phenomenon (e.g. a case), set within its real-world context – especially when the boundaries between phenomenon and context are not clearly evident”. My principal research strategy was qualitative, as my research is concerned with exploring meaning and explaining observed social phenomena. In the next Section 3.2, I reflect on case study research as a methodological approach before going on to describe the research methods and data sources I employed (Section 3.3).

3.2 Case study methodology and research design

Whether a case study approach is considered a valid research methodology is primarily an epistemological question, but also a question of research aims. Case study methodology has been criticized in the past– especially single case study research - for being ‘nothing more than a way of producing anecdotes’ (e.g. Eysenck, 1976 cited in Flyvbjerg, 2006 p.224), for being too context dependent, ungeneralisable and therefore limited in its contribution to testing a hypothesis. However, as Flyvbjerg (2006) argued, the proximity of case study to ‘real life’ and the depth of knowledge associated to a particular case lead to developing a nuanced view of reality and to *insitu* expert knowledge. Expert knowledge provides a meaningful way of understanding human behaviour as opposed to explanation through rule based knowledge, which he considers to be ‘the lowest form of learning’ (p.6). I will be using my case study as means to ‘learn something’ rather than to ‘prove something’. The understanding that can be generated through case study research *is* context specific, but can enable theorisations that are more broadly applicable (Hammersley *et al.*, 2000). Through my case study, I aimed to generate not only in-depth knowledge about the Cromer crab fishery, but also theoretical knowledge which could be applied to other fishing communities in the UK or other parts of the world facing similar issues.

Case study research typically has many variables of interest, so the process of conducting research is one that is highly iterative. Although I identified concepts that were of relevance to the research prior to fieldwork, I kept relationships between them open (Eisenhardt 1989; Flyvbjerg 2006). In the

next section, I outline how I planned, designed and prepared for my case study, starting by discussing the selection rationale for my case study.

3.2.1 Case study selection

In considering my research design and *where* to conduct this research, I realized that my research questions and framework could feasibly be applied to any fishery and fishing community in the UK. I decided to explore options for research on a fishery in the East of England where I found that, compared to other regions of the UK (e.g. Cornwall, Scotland), very little recent social science research on fisheries existed. It was therefore an opportunity to contribute to research and given my proximity to the Eastern coast, should allow for an in-depth case study.

During the scoping part of my research from May to October 2012 and at start of my fieldwork in February 2013, I contacted a number of key informants I had identified from preliminary online research. These included the author of a book on North Norfolk fishermen and former secretary of the North Norfolk Fisherman's Society (NNFS)¹⁹, the Eastern Inshore Fisheries and Conservation Authority (IFCA)²⁰, and the eastern branch of the Fishermen's Mission²¹. Through these contacts, I was able to get a general sense of different places around the coast in Norfolk and Suffolk, and the varying nature of the issues and their contexts. I then followed other leads and met with other individuals in Norfolk and Suffolk in order to improve my understanding of different fishing places and help decide on my case study. I also attended two 'community engagement meetings'²² in Norfolk and Suffolk organised by the IFCA.

In addition to answering research questions about change in a particular fishing and wider coastal community, I was interested in being able to explore and question particular characteristics of my conceptual framework and in doing so to contribute to ongoing wider theoretical debates on the application of social resilience. In addition to researching how fishermen respond to change, which provides insights for fisheries policy, coastal places provide interesting cases for the study of place identity and social resilience. Firstly, they are subject to high levels of change including environmental, social, economic and demographic change. They are therefore places where resilience is constantly being tested along with the meanings people attach to places. Secondly,

¹⁹ an association bringing together members of the fishing community for representation

²⁰ The Eastern IFCA is the regional governing institution for the management and conservation of the inshore area in the East of England.

²¹ a charity providing welfare assistance to fishermen and their families

²² These meetings are held sporadically by the Eastern IFCA in various locations and are open to anyone to attend. It is an opportunity for issues to be discussed between government officials, fishermen and other interest groups.

coastal communities are also often marked by a fishing identity to which local residents and visitors are attached, whether or not they fish themselves (Urquhart and Acott, 2014; Ross, 2012). My case study choice was therefore guided by theoretical perspectives related to my concepts and my research interests. I therefore looked for a case study where place identity and attachment appeared related to fishing, where fishermen had been responding to change in their community, and where government or community initiatives existed to support or guide fishermen in dealing with experienced changes.

3.2.2 The case of the North Norfolk “Cromer Crab” fishery

My case study focuses on a small-scale²³ specialized fishery known as the North Norfolk ‘Cromer Crab’ which includes not just Cromer, but other coastal towns and villages along the coast (Figure 3.1).

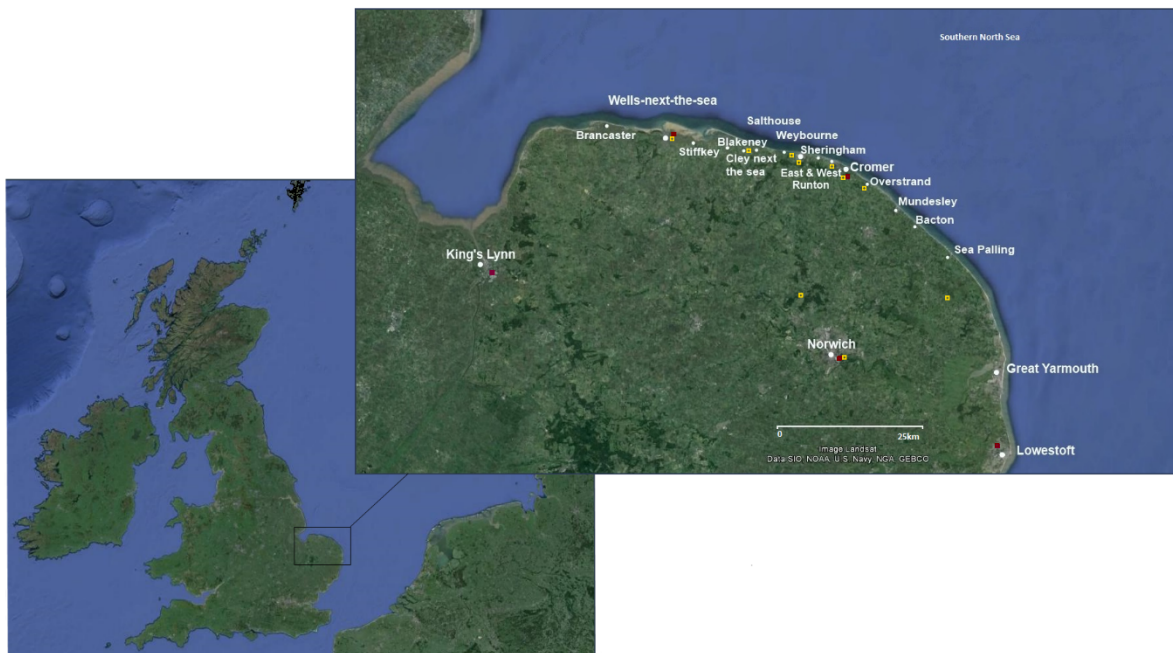


Figure 3.1 Map of case study area of North Norfolk situated within the East of England. Main landing sites in North Norfolk fishery are the harbour of Wells-next-the-sea and Cromer beach. Coloured points indicate location of interviews with fishermen (yellow) and with institutions involved in coastal and fisheries policy (red). NB: Although the fishery’s boundaries are debated, it is generally understood as extending from Bacton to Wells and is commonly referred to as the Cromer crab fishery (see Chapter Four). Adapted from Google earth, 2014.

Cromer Crab was particularly associated with the towns of Cromer and Sheringham, known for their crab fisheries since the mid-1800s, when these towns developed following the construction of the railway to London and rising visitors to the coast during Victorian times. In 1875, there were 100

²³ There are many definitions of small-scale fisheries across Europe where in legal terms it is taken to mean boats of under 12 metres. I use small-scale to mean skipper owned boats of under 10 metres (the size classification for inshore used in the UK).

crab boats in Sheringham and 50 in Cromer, with an estimated number of 200 fishermen out of a population of 1415 in Cromer and 1250 in Sheringham. The reputation of local crab was based on their sweet taste and small size, which even led to investigations in the 1960s to determine whether they could be considered to be a separate species. The boundaries of the fishery are still debated and since the 1980s, boats from Wells-next-the-sea and other nearby harbours have also started to target crab with larger boats (although mostly under ten metres) fishing up to 20 miles off the coast on 12 to 24 hour trips. The fishery as a whole involved over 70 boats and 100 fishermen in 2013 along the entire North Norfolk coast, a third of whom were part-time, operating from a dozen locations, mostly beaches (IFCA, *pers comm.*, 2014). The fishery has declined particularly in Sheringham and surrounding beaches, but Cromer has had a relatively stable number of boats working from its beach over the last 10 years. Both towns still celebrate the fishery annually through a Crab and Lobster festival.²⁴

Between 2006 and 2013, the North Norfolk Crab fishery averaged ~700 tonnes annually with a value of £2.2 million, representing six per cent of English landings (IFCA, 2013; MMO, 2014). Considered one of the most commercially and culturally important fisheries regionally, but in need of support, it was identified for European funding, and the North Norfolk Fisheries Local Action Group²⁵ (FLAG) was set up in 2011. As a region, North Norfolk has also experienced significant economic, environmental and social change. It is a region that is predicted to suffer significantly from coastal erosion and flooding in the future (Dawson *et al.*, 2009). The region has been identified as strategically important for the development of offshore wind energy and meeting carbon emission reduction targets. Demographically, these towns have changed and the housing market in North Norfolk is disproportionately driven by retirement and second home purchases. This explains why it has the highest average house price in the region despite having the lowest average wages. In sum, the context of these coastal fishing communities has changed considerably, particularly in terms of their social and economic constitution. The dependency of these communities on the fishing industry has reduced, at least in purely economic terms. The context of these changes will be elaborated on in Chapter Four.

3.2.3 Defining the case, analytical units and sampling

My research concerns both the fishing and 'non-fishing' community as my case study is defined as the coastal communities from which the fishery is fished. This section focuses on the units of analysis

²⁴ It was set up in 2010 to bring tourists to the coast at the start of the season

²⁵ The North Norfolk Fisheries Local Action Group (FLAG) is a partnership between fisheries actors and other local private and public stakeholders to allocate funds from Axis 4 of the European Fisheries Fund.

and discusses how these are nested within my case study. Defining and operationalising the concept of community required a consideration of who should be included, who is part of 'the community'. However, the definition of a coastal fishing community or indeed any 'community' tends to be problematic. A community can be defined geographically as those living in a particular place, but it can also refer to cultural or occupational groups which are dispersed geographically (Agrawal and Gibson 1999; Brookfield *et al.*, 2005). In fisheries, the type of gear fishermen use can unite certain groups or species they target. However, as I found out during my scoping study, the fishing community is not as obvious as it used to be in the past. Fishermen will often work from somewhere different to where they live, making the idea of a 'Cromer' or 'Sheringham' fishing community more blurred. Research on fishing communities often focuses on these fishermen rather than the wider community, with the views of residents other than those in the catching sector being rarely sought (Jacob *et al.*, 2005).

My case study included different nested levels of analytical interest. In this research, I used a broad definition, which includes geographically bound nested communities of individuals within which are nested those with fishery related occupations and others without. Individuals and groups nested within a community may vary in their beliefs, goals, needs, preferences, values but what they all have in common are local government politics, decisions, policies, planning and to some extent a recognised shared culture and heritage which affects the identity of individuals and their degree of cohesiveness. Using this approach, my case includes those working in the crab fishery, who may or not live in the same place, and the wider coastal community made up of both fishing and non-fishing households (Figure 3.2).

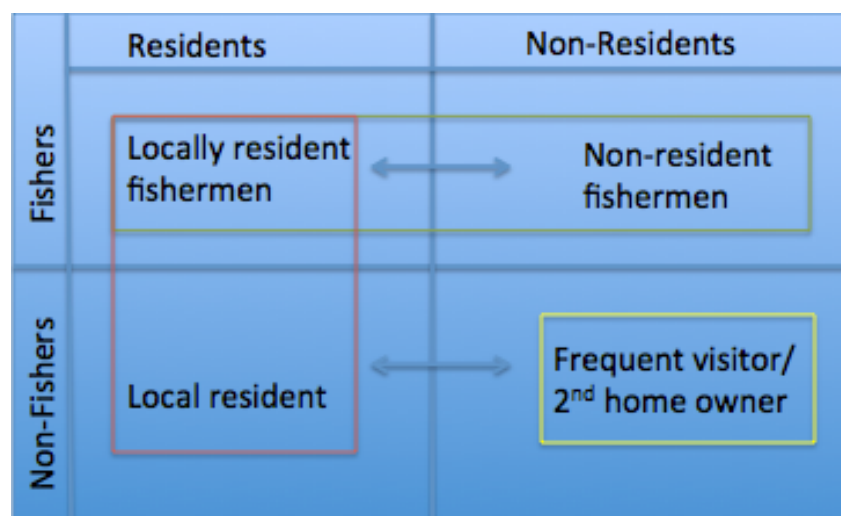


Figure 3.2 Different groups of people identified in case study area. The overlapping groups are the occupational fishing community in green, the geographical community in red and in yellow the other coastal resource users. Within these groups exist others, for example particular resource users such as surfers or particular residents such as pensioners or young families.

Finally, another unit I consider in my case is the policy or governance context, which includes those involved in setting rules and providing support or implementing policy in relation to the fishery. In conclusion, geographically, the boundaries of my case are loose, which is reflective of the nature of the fishery as I explain in 3.22. My research is concerned with relational questions around place which include fishermen in the Cromer Crab fishery, and the coastal communities associated with the activity of fishing. The type of evidence I am seeking is illustration by example, which will allow an 'analytical generalisation' from the case study. Therefore, I selected research participants in order to gain an understanding from a diverse group of individuals from which to build my case, which included part-time, full-time, retired or new fishermen and some women involved in fishing businesses who were based in different parts of Norfolk. My main focus in selecting research participants was on fishermen who were currently working in the fishery, and had remained in the fishery even if they were now retired, rather than those who had left to do other work. This was mostly due to the practical difficulties of identifying ex-fishermen and due to my interest in understanding responses to change (of which getting out of fishing is just one). Another part of my research is concerned with the relationships with a particular place and includes residents and visitors. For this part of the research, I chose to focus on Cromer (due to the symbolism associated with the fishery) and to a lesser extent Sheringham (as a place which has recently lost all its full-time fishermen).

3.3 Data sources and methods of data collection

My research strategy was ethnographic using a case study methodology which used mostly qualitative methods. However, case study also relies on many other forms of data to help elucidate aspects of life in the particular milieu. These include interviews, documents, questionnaires, and visual material including photography. In this section, I outline the different methods I employed and different forms of data that this generated.

My fieldwork lasted for a year, from February 2013 until February 2014. The majority of my interviews were conducted between March and June 2013. I decided not to live at the coast for my field research. This was for several reasons. Firstly, there is no clear geographical 'community' within which to live and I usually had to drive around from place to place visiting research participants at home, or from where they fished, or from another place they were working. I concluded that living at the coast for the duration of the fieldwork was not necessary for my research, particularly as I lived between 40 minutes – one hour's drive away. When I needed to I stayed overnight in Cromer and West Runton so that I was able to make observations at different times of the day and at different times of the year.

3.3.1 Observation

In order to learn more about the fishing community and industry more broadly, I participated in different activities which provided additional insights to interviews. These activities included 'hanging out' at landing sites and by fishing boats as they returned, and having tea in the local café in Cromer where some fishermen go in the winter and summer. With the fishermen's consent, I also observed daily activities on market stalls or shops, in worksheds when pots were being mended, in small processing facilities where crabs were being dressed. I also accompanied a couple of fishermen on early morning and weekend deliveries to wholesalers and other customers. This was only possible after having built up a good relationship with a few fishermen. In February 2014, I took part in a fishing trip. Although I knew that some of the fishermen had taken women on their boats, including two female authors over the last few years, I was reluctant to ask to be taken for a trip during the main part of my fieldwork. I had heard their irritations at being asked by strangers (including photographers, chefs and 'silly women') to go out to sea with them and their complaints that they didn't seem to appreciate the hard work involved. Although I had decided that taking part in a trip was not essential in terms of my research, I knew that it would add another dimension to my

understanding of their work. The opportunity arose impromptu after a visit I made to the coast after data collection.

Whenever I could, I also attended coastal events, such as the Crab and Lobster festival which proved useful for keeping in touch with some of those I had interviewed. I attended the festival every year between 2012 and 2015. I also attended a number of 'community engagement meetings' where fishermen meet government representatives from the IFCA and MMO and other stakeholders every four months, and was an observer at a FLAG committee meeting. In August 2013, I attended the closing event of a fishing apprenticeship programme funded by the Prince's Trust. In March 2014, I was given permission by the Prince's Trust to observe a day of the programme.

These activities enabled me to observe and interact with research participants in a number of settings. For example, some of the trips I made with fishermen to Suffolk or other parts of Norfolk highlighted the importance of relationships of people in the fisheries sector across the region and what working in this sector is like. Most of the work happens early in the day, before sunrise or at day break. The only other people who are up at this time are in the same line of work – which makes it a somewhat hidden world. As fishermen get ready for a tea break, having completed half a day's work, most of the population is just getting out of bed. Similarly, standing on the other side of the fish counter, in a processing or work shed at the back of the garden, is something most people outside of the fishing sector never see. These are very social places where there is a steady flow of customers or other visitors just dropping in for a chat.

Throughout my fieldwork, I kept a research diary where I would make notes of any reflections I had. I also used an online diary on my phone using 'Day One' and 'Evernote'. I took photographs²⁶ to document how places were being represented, and made other observations which were part of my fieldnotes. I later added fieldnotes and photographs to NVivo 10 and coded them under particular themes.

3.3.2 Interviews

In total, 28 recorded semi-structured or relatively unstructured interviews were conducted with new, current, retired or ex-fishermen between March 2013 and February 2014. While the focus of my research is on beach boat crab fisheries of North Norfolk including Cromer, Sheringham, Cley,

²⁶ Only a few photos included fishermen in them. In these cases, I asked for verbal consent and showed the photographs to the fishermen

Overstrand, I also conducted interviews with harbour fishermen in Wells-next-the-sea and Morston operating in this fishery, and another eight fishermen in West Norfolk and Suffolk working in other fisheries. Ages varied from 19 to 76 years old. Only five were under 30 years old, reflective of age composition in the fishery, where I estimate²⁷ the average skipper age to be between 45 and 55 depending on the location. Two other interviews were recorded with women who worked in and ran fishing businesses with their partner (see Appendix 2.1 for additional information). The majority of interviews took at least one hour and ranged between 45 minutes to two and half hours.

Initially I used a semi-structured interview guide and then adopted a more organic interview style, which nevertheless always covered some key themes. These themes were adapted depending on the age of the individual and whether they were starting out or had more experience, or their occupation as crew, skipper or other role (e.g. processing or running another fishing business). I explored processes of occupational attachment, and how fishermen were coping with and adapting to challenges they faced in their occupation by asking about their entry into fishing, their daily activities in relation to fishing and their perceptions and experiences of changes. I used scenario style questions relating to future trends in the fishery and whether they would consider moving to another location to continue to fish or re-training in another job to stay in the area. I explored themes around belonging to a group, identification with a particular fishing place or group of fishermen, how the future might look in 10 years where they work currently and other surrounding places, and how it is for 'outsiders' to start up in a new fishing place (as fishermen did in past). Finally, I asked about how fishermen are generally perceived in the community, why young people do not seem to be entering the sector, and other perceived issues such as fisheries management. During interviews, some participants would show me old photos and this was often useful in generating new data in a way that could not have been so easily elicited through verbal means. Certain interviews generated more data on certain themes than others and certain individuals were able to express themselves more clearly on particular topics. For instance, older fishermen tended to be more reflective about some of the issues facing the fishery.

In addition to the interviews with those working in the fishing sector, I also interviewed individuals involved in government bodies or other organisations related to fishing. These included some local Councillors, government officials from the Eastern IFCA, CEFAS, NNDC, Wells Harbour Authority, Eastern Seafish Training Association (ESTA)²⁸, the FLAG, the Prince's Trust, the MMO, the

²⁷ based on interviews and records provided to me by Eastern Seafish Training Association.

²⁸ Eastern Seafish Training Association (ESTA) is a training provider for the seafood industry in the East of England accredited by the public industry authority, Seafish.

Fishermen's Mission, a public relations consultant for wind farms, as well as local people involved in organising some of the events in Cromer and Sheringham e.g. the COAST festival, and the Crab and Lobster festival.

3.3.3 Questionnaires and Structured Interviews

In addition to semi-structured and unstructured interviews, I used questionnaires as structured interview tools. When interviewing fishermen and in order to gain accounts of experiences of adapting to change, two ranking and scoring well-being assessment tools were used. The two tools I used were the Governance Relationships Assessment (GRA) and the Global Person Generated Index (GPGI) and these were administered after the main interview. I followed the approach taken in a similar research context on fisheries of Northern Ireland (Britton and Coulthard 2013) as well as in other studies described in Coulthard (2012). The aim was to find out which relationships affect what fishermen do by asking the question, "What relationships influence your fishing decisions (day to day and longer-term)?" Once five different relationships had been noted, the participant was asked to rank these on a scale of one to four (with four being the most important, and one being the least in terms of affecting what they were able to do). Finally, the participant was asked whether there were any relationships they would like to change in any way. Using the GPPI, I asked interviewees what five aspects of their life were important for them in order to live well (as a fisherman). As with the GRA, the next step was to score satisfaction with each elected response and then ask which they would like to change or improve (Appendix, 2.3-2.4). Using these tools had a number of benefits such as enabling me to ask questions which would have not naturally arisen in conversation. In some cases, it provided some interesting insights but on balance, I decided to stop using these tools for reasons I explain in Section 3.54. I used these tools in twelve of my interviews. I have also reflected on the use of these two tools in White (2014) (Appendix 5.1).

In order to understand how the non-fishing community relate to coastal fishing places, I used a questionnaire with closed and open questions which I collected data with in Cromer and Sheringham. The information provided did not explicitly mention fishing but instead explained that I was interested in how different people relate to coastal places, whether they live, work or visit regularly. The aim was to understand how the general public perceived and identified fishing in these places in relation to the many other possible features. With the help of one to three research assistants²⁹ I piloted the questionnaire in Cromer and then completed approx. 60 questionnaires

²⁹ These included two third year undergraduates and one Masters student, all from International Development at the University of East Anglia.

(equal number of local residents and regular visitors) over several weeks in August 2013 in different locations, customers from fishermen's fish shops, people walking down at the beach, near fishing boats, and random locations (e.g. outside museum, church). I repeated this in Sheringham in early September 2013 with about 50 questionnaires (more residents than regular visitors in sample due to the timing). As far as possible, a mix of men, women, and age groups, and length of residence, frequency of visits were sought. This was done by keeping a checklist style sheet to keep track of the characteristics of those who had been approached already. I trained my research assistants together and piloted 10 questionnaires. This enabled a discussion and some clarifications to be made in terms of aim of particular questions.

There were four sections to the questionnaire. The first sought general information about their relationship to and familiarity with the place. The next section asked the person to compare the place to other coastal places, and to come up with key words they associated with the place, followed by a psychometric scale aimed at measuring attachment to place (Williams and Vaske, 2003). The third section was aimed at finding out how much the person was interacting with the coastal environment and knew about fishing by asking questions about seaside activities including local seafood and watching fishing boats. Finally, the questionnaire ended with a postcard exercise with 16 images of Cromer (or Sheringham), which represented different aspects of the place. I asked each participant to choose three, which represents the sort of place they felt it was from their experience. These included natural scenery, images with people, historical pictures, and pictures related to fishing. The images of Cromer and Sheringham used were as similar as possible (e.g. an image of the high street, the beach, seafood stall, war memorial, fishing boats). Where this was not possible then the equivalent was used. For example, a picture of Cromer pier was replaced with a picture of Sheringham steam railways for which it is best known (See Appendix 2.6b). I went through a process of image selection with several local people I knew during the pilot phase to ensure I had images that were sufficiently diverse and representative of the place. The questionnaire was administered in person and in such a way that it allowed longer conversations or unstructured interviews to take place with the research participant around place and identity although the questionnaire itself could be completed in 10 minutes. I did not record any of these conversations but made notes during or after. In these cases, I collected contact details (stored separately from the questionnaire) where participants wanted to keep in touch with me or did not mind being contacted again in the future.

Finally in March 2014, I implemented a short questionnaire relating to aspirations and employment with 11 participants aged between 16 and 25 attending a three week course, 'Get into Fishing', run by the Prince's Trust and funded by the FLAG (See Appendix 2.7 for the questionnaire). In these structured interviews, I asked about where they were from, whether they were likely to move away from Norfolk for work, previous work experience, what was most important to them in a job, education and qualification level and their previous experience related to fishing and motivations for working in fishing. As only 11 questionnaires were used, this was not statistically significant. Nevertheless, it provided me with some useful insights into the types of participants in the FLAG's training programme.

3.3.4 Secondary data

Throughout my fieldwork, I collected pieces of information I found to provide context within which to interpret data. These included old and new newspaper articles relating to the fishing sector, or related to place identity, any contestations over this, or any perturbations whether environmental or social (Tables 3.1-3.3 in Appendix). I collected archival data from the Kings Lynn True's Yard museum (where the archives for the Eastern Sea Fisheries Committee (ESFC) are held). These include historic catch records and other data such as number of boats and names of fishermen active over the last 50 years, which I used to develop graphs of trends in landings over time. The reliability of these data are unknown but it is likely to be based on observations made by different fisheries inspectors employed by the ESFC. A number of videos were available from the East Anglian Film Archive and from Cromer museum which show interviews with fishermen conducted as early as the 1960s and as recently as 2008. Over the years, several books have taken an interest in North Norfolk fisheries, and include interviews with fishermen, family members and others involved in the industry. They provide some historical perspective on these fisheries and how they have changed. One example is 'Crabs and Shannocks: The longshore fishermen of North Norfolk' where Kitty Lee, a fisherman's daughter, fisherman's wife and the mother of a currently active Cromer fisherman gives an account of life in a fishing family from growing up in one in the 1930-1940s to being married to a fisherman from 1956 (Stibbons *et al.*, 1983). Edited life histories of fishermen and their families are provided in 'The Last Hunters' by Whittmore and Morris (2012) and, 'North Norfolk fishermen' by Weatherhead (2011), which focuses on changing fishing practices. A MSc dissertation from 1996 conducted at UEA by Graham Holsey, the relative of a Sheringham fisherman, also provides unpublished accounts from retired fishermen at a time when many fishermen were going through difficult times. These were useful sources of data, which informed my understanding of the fishery and its history and I was able to draw on them when interviewing older fishermen in particular. Finally, additional data were

collected on start-up costs for fishermen using online sales `websites and on the number and age of fishermen undertaking mandatory certificates with the regional provider, ESTA. Other secondary data were obtained from the Office of National Statistics (ONS) and reports in Norfolk (e.g. Norfolk Coastal Partnership).

3.4 Analysis

3.4.1 Interviews and field notes

The data I collected and that were generated were inevitably shaped by my theoretical choices and interests. However, I worked to minimise the potential effects of this in terms of closing possible avenues of exploration and explanation in later analysis, which would be important to the local case study and people. I reflected on and analysed parts of my data as I collected it. I had some periods of reflecting on the data I had been collecting through interviews and made decisions during fieldwork about which questions to adapt, add or remove from the initial semi-structured interview guide I started with. Certain questions worked well and I made sure that I was consistent in asking these. For example, understanding when, why and how someone became a fisherman was very important in determining motivation and socialization into fishing. Certain themes emerged early on in my interviews and led me to explore these further as well as to look for particular types of interviewees. For instance, I realized that it was important to interview young people who were involved in fishing.

Having completed my interviews and as a first step in my analysis, I listened to my interviews in order to refamiliarise myself with my data. As I listened to these interviews, I made notes and each time at the end of the recording I would note down the key characteristics of the interviewee as well as the main topics covered, and what the interview may be a good illustration of (for instance an account from a young fisherman about entering the fishery; or from an older fisherman about some of the historical changes and management issues). I then transcribed recorded interviews using NVivo 10. Once I had listened to all my interviews and transcribed about five interviews, I coded the text using thematic categories as they arose. I followed the approach by Charmaz (2006), where interviews are coded openly (although I did not go as far as coding line by line). I then developed In vivo codes, which were more interpretive, where text was an indication or example of something of analytical interest. Through this process, I started to generate patterns in my data and find some differences between interviews in terms of these patterns. I also coded some data in a more literal way, for instance any information as it came up which was related to someone's name or particular fishing places. This generated a large number of codes. My next step was to develop axial codes where I grouped themes together and condensed codes, which were uncommon in the data. I

continued to transcribe more interviews and then went through another process of re-coding and grouping data. In developing these new codes, I went back to my research questions and set up codes, which would later help bring together the evidence I would need in my writing. I removed some codes, which related to only a small part of the data. At the end of the coding process, I had developed codes under six broad questions of interest with up to three levels of grouping under each one, which resulted in a total of 173 codes (See table 2.1.4 in Appendix).

3.4.2 Questionnaire data

I entered in data from questionnaires into Excel and then imported into NVivo which I used to explore these data. Codes were recorded with the initials of the person who administered the questionnaires. I later converted these to a code reflecting whether the participant was a resident or visitor, in Sheringham or Cromer (e.g. SR=Sheringham resident, CV=Cromer visitor). I used the tools in NVivo including the 'word count function', and cluster diagrams as a way to explore responses to different questions (e.g. key words they associated with Cromer), particularly for open question responses. In addition to this more exploratory analysis, I also quantified some of the responses to closed questions using percentages. Although I collected psychometric data, I did not analyse these data statistically as the sample was large enough.

3.4.3 Application of research questions in the thesis

Social Construction of Place

What role does fishing play in the construction of place identity of people living and visiting coastal fishing towns?

How have with relationships to place in the Cromer fishing community changed over time?

What does the crab fishery mean in terms of Cromer's identity to different individuals and groups who live there or visit? How is this expressed?

How do fishermen relate to places they work from and to others within the fishing community and coastal fishing towns?

What is the nature of relationships within the Norfolk crab fishing community?

How do those involved in fishing identify with Cromer and shape its identity?

Experiences and Responses

How do fishing communities experience and respond to change ?

How have coastal visitors and residents experienced and responded to change ?

What changes have Cromer fishermen experienced?

How have Cromer fishermen responded to change?

What changes have Cromer residents and visitors experienced?

How has this been expressed by different groups locally?

What are the implications of these responses for the future of coastal fishing and the coastal communities within which they are located?

Governance for Adaptation

How do formal institutions and government enable or constrain fishermen's responses to change?

How are local values represented and how is local knowledge reflected in institutions and in decision-making?

Which organisations are involved in fisheries governance which affects the Cromer crab fishery?

How do fishermen participate in formal institutions and decision making which influences the future of their fishery?

3.5 Reflections on research process

3.5.1 Research Ethics

This research was given ethical clearance by the Ethics Committee in the School for International Development at UEA (Forms in Appendix 2.2). When conducting my fieldwork, I followed these steps and core principles:

Step 1: Presenting myself and my research

I started by explaining the general aims of my research and explained that I was funded by CEFAS (Centre for the Environment, Fisheries and Aquaculture Sciences) but that the research was designed independently from CEFAS and any data would be kept at UEA. I provided my contact details and supervisors' contact details. I finally explained that I was committed to answering any questions they have regarding the research, that I would keep responses anonymous and any information they give confidential.

Step 2: Obtaining written and signed consent.

I explained what was expected through their participation in the research. This involved being interviewed (recorded on a Dictaphone and later written up) and/or filling out a question sheet. I asked for a commitment of 1 hour of time as a minimum (for interviews), and minimum 15 minutes for questionnaires. I explained that it was possible to withdraw from the research at any time or to not take part in certain parts of the research. I explained that information would be presented in such a way as to maintain anonymity and confidentiality by referring to occupation, the type of organisation/business they work for, and/or where they work (location). Data collected through questionnaires could only be identified through a unique code and in this case no personal data were recorded. However, as with any research, a number of issues came up during my fieldwork which I reflect on here.

3.5.2 Maintaining anonymity

While I made a commitment to maintaining anonymity both in designing my research and obtaining ethical clearance for the research from all my research participants, I found that in practice this required more care than I had perhaps anticipated. Working in a relatively small and close knit community where most fishermen and those who work with them know each other's business meant that anyone could quite quickly know who I had spoken to or not. The first issue I faced was what to respond when I was asked whom I had spoken to. I usually kept this answer relatively vague

and would mention one or two names of individuals they knew already or who would have been obvious individuals to interview. As my data collection progressed I started to think about how I would write about different individuals or use quotes. I realized that I would be faced with the challenge of maintaining anonymity while providing enough context and detail. I wondered whether, as in many ethnographies or community studies, I should anonymise my case study location. However, as my research is a case of a particular place, which is central to my research question, it would be extremely difficult to anonymise the location.

Most of those I interviewed would react to the consent form and in particular the clause regarding anonymity and confidentiality by saying that I could use anything they said in my research. It seemed as though they wanted to tell me that they trusted me and what I would do with data I collected, or perhaps that they did not need to 'hide' their opinions and personal stories from anyone. I always explained that a) it was required by the university and b) that it was best to abide by this principle as it could sometimes be difficult to know what the consequences could be in the future and that I did not want them to have to worry about this.

It was interesting to note this because for the most part all those I interviewed appeared to be incredibly open and honest about their lives. I realized that it could often be difficult for someone being interviewed and having a personal conversation about their life to conceive how what they said could potentially be reported and affect them. A book called 'The Last Hunters' (Whittmore and Morris, 2012) was published in 2012 including their stories and photographs of many of the fishermen I also interviewed. Having discussed the book with some of them, I realised that some of the fishermen were uncomfortable with being recognized in the street or seeing their photos hung up in the local café or pub. It was important for me to be aware of this book and the potential impact it may have had on the interactions I had. It also highlighted to me the importance of conducting interviews sensitively and ensuring anonymity was maintained as far as was possible in my thesis. As anonymity was promised, pseudonyms are used to name all respondents and other details such as exact age are blurred.

3.5.3 Making contact, sampling

The first two interviews I conducted were with two Cromer crab fishermen to whom I was introduced by the author of 'The Last Hunters'. I then started to develop other contacts and identified other research participants as I became more familiar with the area. I always contacted potential research participants in advance of arranging an interview, usually by phone or

occasionally by email or in person where I would establish a rapport and start by just having a chat. I would explain who I was, why I was contacting them and how I had got their contact details, before asking whether they would be willing to meet for a minimum of an hour. I then asked them what time would suit and where. A date and time was usually tentatively agreed with most fishermen asking me to call back to confirm the day before or even on the day. It was important for me to be understanding of the need fishermen have to keep an open schedule. On several occasions interviews were cancelled, typically because of having to go to sea, fix their boat or other commitments. Interviews would be rearranged for a later date and I often had to adapt what I was doing and keep different people's availabilities in mind. Everyone I contacted agreed to meet me and take part in my research however in a few cases I was not able to conduct interviews when these were cancelled.

As I used a snowball sampling approach, my sample was limited to those who fishermen thought I ought to speak to or who they thought would speak to me. However, I managed to build up a range of contacts as people were mentioned in conversation and also made my own contacts directly, for instance when attending community engagement meetings, talking to people in the town, or taking down contact details of fishing related businesses on signs. I would also always ask each person I interviewed for other contacts who I could speak to and specified that I was looking for diversity in the types of people I met. In order to generate further suggestions of potential research participants, I would prompt this by saying I was particularly looking for part-time fishermen, new entrants or younger fishermen and those who may have left recently or retired, as these would usually be seen as less obvious suggestions, with more experienced and currently active fishermen always being named initially.

I would usually start off an interview with some general conversation to put the interviewee at ease before asking if they agreed to being recorded and providing them with a consent form, which explained how I would use the data and that they would be anonymous in any research publications from these data. When I met or interviewed my research participants a second or third time, I usually took notes either during or after meeting them instead of recording in order to help build a more informal relationship.

3.5.4 Asking funny questions

The first issue was in administering the GPGI and GRA tools after interviews. In a number of cases, the participants felt uncomfortable with questions about their personal lives and relationships they

had. This was in part due to the way the question was framed. Several participants became fatigued and irritated by the questions in the GRA and GPGI which asked them to list what was most important to them to live well. One of the fishermen joked: "I'd like Norwich city to stay in the premier league. That would be very helpful" and another "What do you want to know now? The meaning of life?" and another fisherman, after some prompting exclaimed, "Well, think of something and put it down!"

Often after the GPGI and GRA part of the interview were completed, participants were happy to continue talking, indicating that it was the questions they found irritating rather than the rest of the interview which resembled a more informal chat. In some cases, interviewees found the GRA and GPGI questions difficult to answer. "That's a very difficult question. That's a funny bloody question that is!". "I can't quite grasp it. Give me some sort of example" "Don't know what to say really". In the end, I had to make the decision to stop using these tools as I realized they were uncomfortable for both the person being interviewed and for myself.

3.5.5 Discretion and confidentiality

Through the fieldwork, I was careful to be discrete and maintain confidentiality. When carrying out observations (Section 3.31), for instance on the beach, in fish shops or on deliveries, I paid attention to not disrupt any work. If any business sensitive information arose during observation, I kept this confidential. In a number of interviews, individuals revealed stories about others in the fishing community. For example, certain fishermen made particular accusations of how others had behaved or generally used inflammatory language. Being aware of some of the tensions that existed between certain individuals or of incidents that had occurred, I had to be careful to be discrete and not reveal any information I may have found out from other interviews. This also applied to observing my research participants' behaviour outside of the interview context. In writing the thesis, I have only included potentially sensitive information after evaluating the need for including it and the potential consequences of doing so.

3.5.6 Reflections on research and positionality

Being female definitely shaped my fieldwork in different ways. On the whole, I think fishermen felt comfortable talking to me and perhaps shared more than they would have with a male researcher, for instance when talking about family relationships. However, a male researcher would probably have been able to bond further with fishermen over typically more masculine interests and conversation topics around fishing, boats, types of equipment and hobbies including motorbikes,

angling or martial arts! I imagine that a male researcher may have even been asked to come on a fishing trip rather than having to ask. As one woman from a fishing family told me, it is considered bad luck for women to even wait on the beach for a fisherman to return, let alone go out on his boat! In addition to this, some of the fishermen made occasional comments about my education saying that I sounded posh or asking whether I could understand their Norfolk accent as this extract from the start of a short interview with a fisherman's 80-year-old relative shows:

Robert: You're obviously not local?

Me: Well, I live in Norwich. And my grandmother lives in King's Lynn, but that isn't that local really!

Robert: Oh, I beg your pardon. You are local then. You see the thing is... I have to make allowances when I talk to people. [There's been times when] I thought I was the only one speaking English but it turns out I was the only one they couldn't understand! So, do I talk to you making allowances? Or I say ta ya "This is how I talk and you can get on with it!" But then you can't understand it! When I go down to the pub with old Alvin, we talk proper. We talk about 'things being on the slantendicular'... and 'How yer gettin arn ol' partner?' So it's no good me talking to you like I'm talking to me mates!

Explaining where I was from usually helped to establish a rapport and potentially dispel any preconceptions about me. When talking to fishermen, I found that I could use my knowledge of fisheries policy and local news to talk to fishermen about issues they were facing and this helped me to gain credibility.

3.6 Conclusion

In this chapter, I reflected on how my methodology evolved and the choices I made as my research progressed. I provided some context to my case study area and community and explained how this has enabled me to test some of my concepts and research questions which relate to a literature on livelihood adaptation and place identity in rural fishing communities and fisheries governance. I then outlined the research methods I used, how these data were handled and analysed. Finally, I discussed the ethical considerations taken into account when conducting this research and some reflections of the research process. In the next chapter, I will discuss and introduce in case study in more depth, providing some context to the types of changes that have been occurring.

Chapter 4: Context of change in the North Norfolk crab fishery

4.1 Introduction

Fisheries around the UK have been exposed to a high degree of stress in recent decades, particularly since the 1970s when the UK joined the European Union (Fairlie, 1995). The purpose of this chapter is to describe the changes which occurred over the lifetime of current fishermen and the significance of these changes to fishing livelihoods today. This chapter sets the scene for the next four empirical chapters by outlining the shock and long-term changes which fishermen who are still fishing today have had to adapt their livelihoods to. Using quotes from interviews and secondary data, I explore some of the main changes that have impacted the fishery over the last four decades. These can be summarised as changes in the marine environment due to natural causes, fisheries development and pressures including overfishing (Section 4.3), fluctuations in the market due to changes in local and wider economy (Section 4.4), and changes in fisheries related policy and management (Section 4.5). Before discussing changes in the Norfolk crab fishery, I put this fishery into context on a national and regional scale (Section 4.2).

4.2 National and regional context of the crab fishing industry

4.2.1 Structure of the fishing industry in UK and England

Being an island nation, the UK has a strong fisheries heritage, even if this has declined over the last 50 years (Smith, 2013). Following a recognition of overcapacity in the fishing industry in the 1980-1990s, European Community and national policies encouraged fleet reduction, resulting in a significant decline in number of fishing boats and fishermen. The number of fishermen across the whole UK declined by 35% between 1996 and 2013 to 12,445. The number of English fishermen decreased by a similar proportion to 5924 (MMO, 2014). During this same period, the number of fishing boats in the UK declined by 26% to 6406, 79% of which are under 10 metre in length and considered small-scale. There are now 3133 boats in England, of which 82% are small-scale (MMO, 2014). A closer look at these data, indicates that the proportion of smaller vessels has increased in the UK fleet since 1996, and that there has been an overall decrease in the number of fishermen per vessel of around 15%.

These national trends have been mirrored in the East of England. Lowestoft, East Anglia's largest harbour in the 1980s with at least 50 inshore boats and a trawler fleet, now has no trawlers and less than six full-time inshore boats. Similarly, Great Yarmouth, a key harbour for herring until the late 1970s now has a handful of reportedly part-time inshore boats. Official records show that the number of vessels registered³⁰ in the East of England, remained stable at around 327, between 2006 and 2012 (MMO, 2013). However, data received from the Eastern Inshore fisheries and Conservation Authority (IFCA) reports only 211 active vessels (all types of fishing) in 2012, of which 83% were under 10 metres. These discrepancies are due to registered inactive vessels being counted which leads to an overestimation of the fishing fleet. As Ota and Just (2008) noted in their study of Kent fisheries, official statistics often paint a distorted picture of the fishing industry, to which anthropological studies can provide useful and often more up to date information.

4.2.2 Crab fisheries in UK and England

The UK crab fishing industry is commercially important nationally and at European level, with 75-83% of landed crab in Europe coming from UK boats between 2010 and 2012 (Seafish, 2013). The level of crab landings into the UK has increased by 39% since 1996, particularly as other opportunities to target other fish stocks have declined (MMO, 2014). Between 2009 and 2013, annual crab landings represented between 6-8% of all UK landings amounting to between 24.7 and 29.6 thousand tonnes, valued at between £30.7-38.5 million per annum. Less than half of this was landed in England, but this increased to 62% in 2013 when 17,2 thousand tonnes were landed. In this same period, between 4-7% of landings in England and Wales per year were from Norfolk (Figure 4.1, MMO, 2014; IFCA, 2013) which compares to 8-10% in 1973-1975 and 12% in 1965 (MAFF, 1973; Stibbons *et al.*, 1983, p.55). Wells-next-the-sea and Cromer were 9th and 14th respectively in terms of national landings in 2004-2008 (Figure 4.1, Nautilus Consultants, 2009). In contrast to other English crab fisheries, where the majority of landings exported to other European countries (Seafish, 2013), Norfolk crab is mostly sold in the East of England, perhaps due to a lack of capacity for live export or sufficiently good opportunities domestically.

³⁰ Boats in the East are registered to the maritime district of Lowestoft.

Chart A1.8a: Quantity of landings by ICES rectangle

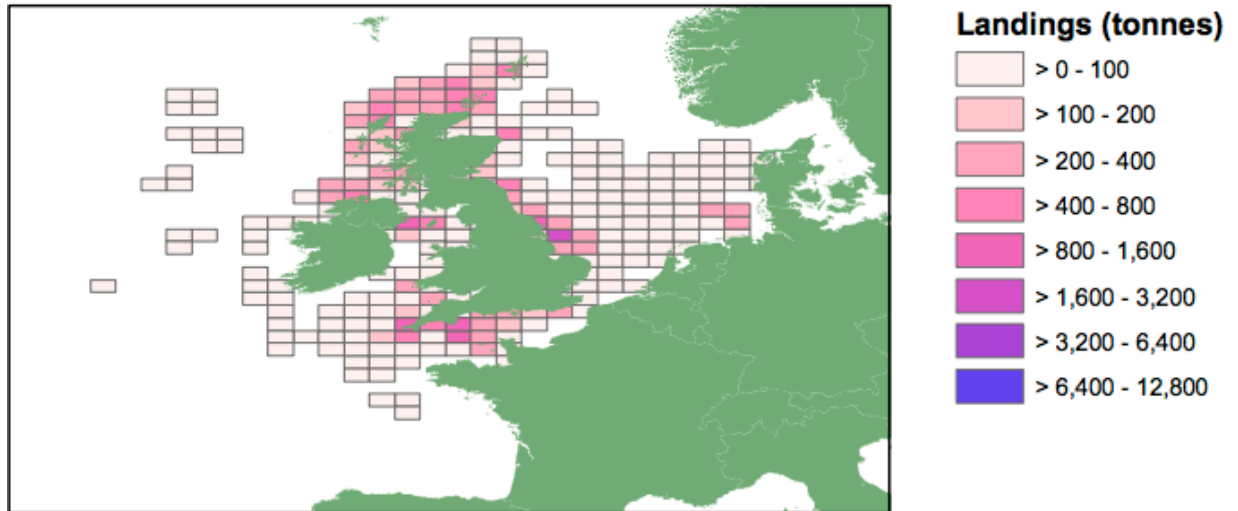


Figure 4.1. Distribution of landed crab in the UK in 2013 which shows the highest landings in the South West and North east of England Yorkshire, Devon, Cornwall and Lincolnshire. Largest ports for crab include Bridlington, Salcombe, Newlyn and Grimsby MMO, 2014.

4.2.3 History of Crab fisheries in Norfolk

In addition to its contribution to national crab production, 'Cromer Crab' has a high cultural and social value, which is of importance to the local economy. Records of crab and lobster fishing in North Norfolk, around Cromer and Sheringham can be traced back to 1724 and Daniel Defoe observes in a guide to the east coast that "Cromer is a market town close to the shores of this dangerous coast. I know nothing it is famous for (besides being the terror of sailors) except good lobsters which are taken off the coast in great numbers - carried to Norwich, and in such quantity too as to be conveyed to London" (cited in Stibbons *et al.*, 1983 p10). The completion of a railway line to London from Norwich in 1849 and then to Cromer in 1877, contributed to the growth of the fishery as the town developed into a Victorian seaside resort (Stibbons *et al.*, 1983). By 1875, there were 100 crab boats in Sheringham and 50 in Cromer (Buckland, 1875). At the time, the population of Cromer was 1415, of which 120 were fishermen (ibid). Today, Cromer has the highest concentration of fishermen with 16 mostly full-time six to ten metres fibreglass boats known as 'skiffs' which employ a total of 20 fishermen compared to five of six mostly part-time boats in Sheringham (own observation and *pers. comm.*, from IFCA; 2014 fleet list for North Norfolk received by email on 13th June 2014) for a population of 7,683 and 7,367 in Cromer and Sheringham respectively (ONS, 2011a). Wells-next-the-sea also has about 14 boats targeting crab and whelk. In total, around 70 boats and 100 fishermen are engaged in potting activities for crab and lobster in Norfolk (ibid, Figure 4.3). This compares to an estimated 200 crab boats on the North Norfolk coast

in 1875 (Buckland, 1875), 65 boats in 1924 after the 1st world war, 30 boats in 1965³¹ and 42 boats in 1974 (Stibbons *et al.*, 1983, p.55).

The boundaries of the 'Cromer crab' fishery, which to an extent is a fishmongers' name given to crab fished in and around Cromer and Sheringham, have broadened over time. A government report in 1973, shows the landing sites from Cley to Bacton (MAFF, 1973). The fishery has however now extended since then to the port of Wells, west of Cley, with beaches and harbours including Blakeney (Morston) and even to Brancaster Staithe. To the east, records show a small amount of crab landings from Sea Palling and as far as Great Yarmouth (Figure 4.4). The boundaries of the fishery have therefore extended to the point that the 'Cromer crab' name could arguably be taken as synonymous with 'Norfolk crab' (Figure 4.2).

³¹ This decline in number of boats may be due to the boats becoming larger with tractors being used to pull boats on to shore compared with smaller boats brought to shore by hand before the 1960s.



Figure 4.2 Map of the North Norfolk Cromer Crab fishery. Harbour and beach boats currently catch 'Cromer Crab' from Brancaster to Sea Palling. A map from a MAFF report in 1973 considered the fishery to extend from Cley to Bacton.

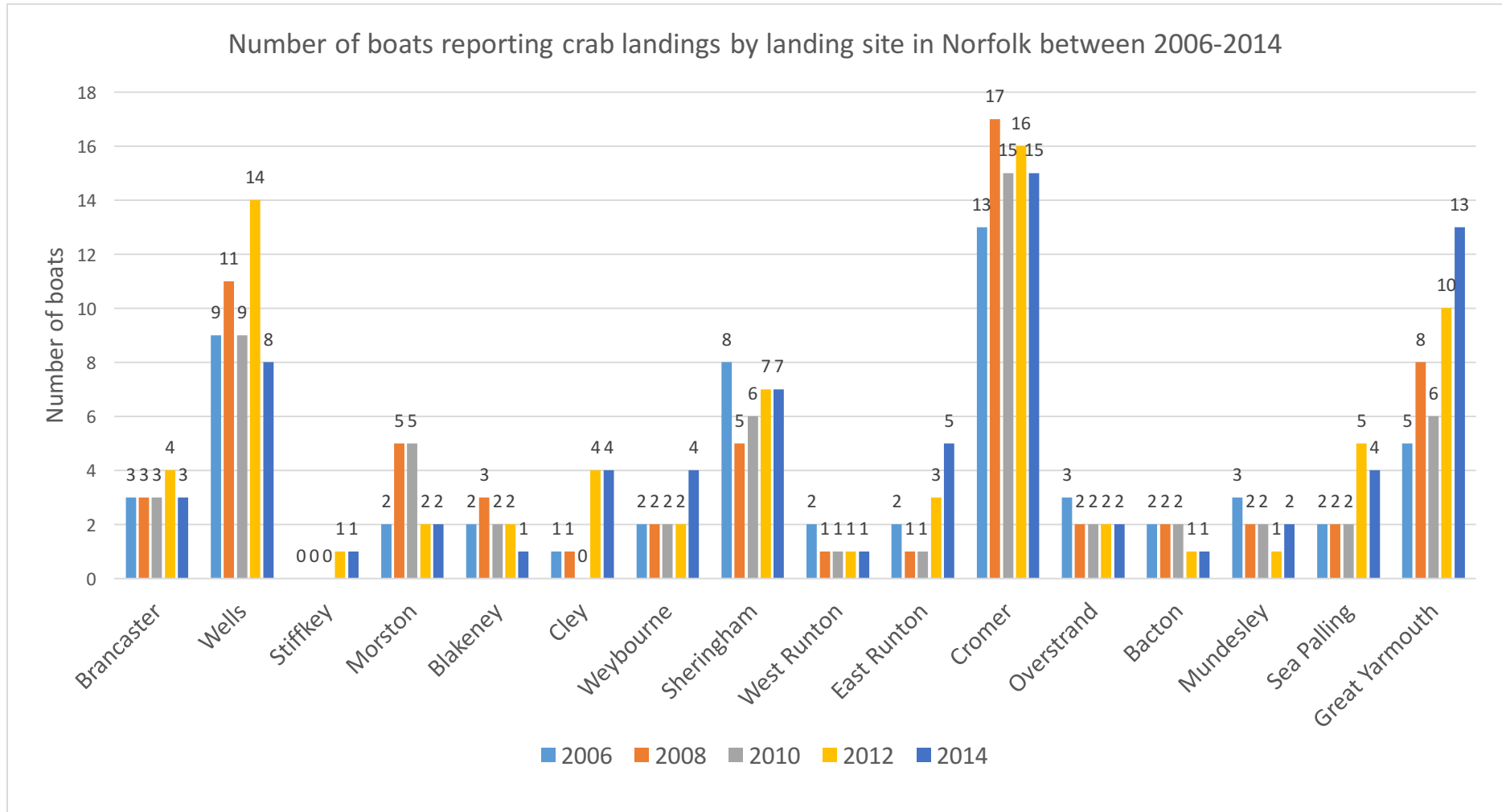


Figure 4.3 The number of boats that reported shellfish landings in at different landing sites in Norfolk which are presented in order geographically. The total number of boats is also shown in a timeline from 2006-2014. NB: In some cases, fishing boats have landed their catch somewhere other than their usual landing and launching site which distorts some of the figures. Source: IFCA Research report 2015.

4.3. Fisheries and environmental change

Fishermen have always had to respond and adapt their livelihood strategies in the context of a changing natural environment. They are constantly observing change and making sense of gradual long-term change as well as more sporadic change. Every year, fishermen respond to the availability and distribution of crab, lobsters and other species. The crab season usually starts in March but it can start in February or be as late as May, as was the case in 2013, when I conducted most of my interviews.

4.3.1 Uncertainty and variability in crab stocks

The 'catchability' - the ease with which crabs can be caught - and abundance of crab can vary enormously from year to year as is apparent in annual reports from the Eastern Sea Fisheries Committee or fisheries assessments by the fisheries laboratory, CEFAS (MAFF, 1966, 1973).

As one of the crab fishermen, Tim, told me: "You have a few bad years, [...] and then all of a sudden they appear from nowhere and then everybody reckons they're nearly extinct, a year and they're back." Evidence of these concerns can be found as far back as 1875, when a government investigation into British fisheries, led in the East by Mr Frank Buckland reported that 'the crab and lobster fisheries have fallen off and impoverished in the last few years to an alarming degree. He warned: 'If some remedy is not speedily applied, their extinction is feared' (Buckland, 1875, p51). Concerns over the status of the local crab stock have been expressed more recently as well. For instance, in 1972-1974 fisheries scientists – including Dr Bannister from CEFAS - were concerned by signs of overfishing, such as declining a Catch Per Unit of Effort (CPUE), and yield per recruit models showing a potential decline in spawning biomass (MAFF, 1973; Bannister, 2009; Bannister, 2011).

In early 2013, crab fishermen were warned at IFCA community engagement meeting, that the Southern North Sea³² crab stock showed serious sustainability concerns, albeit a high level of uncertainty (CEFAS, 2011). The variability and uncertainty in the status of the fishery was accepted as dictated by nature, particularly by older or retired fishermen. For instance, Robert told me:

Over the past 50 years, there's been ups and downs all through. But there's nothing I can put a finger on and say 'Well that was a good year because' of anything, you know. The actual best year apart from just after the war [...] [was in the early 2000s]. There was a glut of crabs here just out of the blue [...] That's just a thing of nature, you get a

³² the scale at which assessment is conducted.

good breeding season perhaps, 3 or 4 years later you get a large amount of crabs. After the winter of 63 which was one of the worst winters on record there was hardly any crabs, but then two years later it bumped right up again.

Other fishermen were able to recall good or bad years, often through memorable events. Nick, in his late 40s told me that 1987 was also a good year after which he was encouraged to buy his own boat. “Ever since then the bloody stocks have gone down. We still earn a living. But, you can't earn a great living now like you used to.”

Similarly, Tim in his late 40s, recounted fluctuations in the late 90s and early 2000s:

1999 weren't very good or 2000 because my mate packed up and went back cheffing. [...] He'd been going to sea for several years as crew on other boats and he got his own boat. He had two good years and then it went downhill. A terrible year. The most you'd get was like 2 boxes [1 box is 30kg] on a good day. In 2002, you would get 10 or 12 and you wouldn't even have to try. They were everywhere.

Although some variability in landed catch could be attributed to changes in fishing effort (see Section 4.3.3, and Figure 4.5) crab fishermen believe their catches are also significantly affected by natural processes, outside of their control including the weather, crab population dynamics and environmental impacts from onshore or offshore human activity. Several fishermen had theories about what affects these dynamics, based on their observations and experience, talking about 7 or 11 year population cycles. However, there is no scientific evidence for this and although tagging experiments by CEFAS since the 1950s have shown migration patterns, more research is necessary to understand the dynamics of this stock. Crab catches may also be limited by the availability of chalk reef habitat on which they burrow. Their population dynamics may be coupled through prey-predator interactions with whelk³³ or lobster, which are also fished locally.

Crabs caught off Cromer have historically been smaller than crabs caught elsewhere. North Norfolk is thought to be a nursery area, and as crabs grow bigger, they tend to move further offshore into deeper waters. Recognising this, the Cromer crab fishery has a derogation from the European Commission which allows crabs of 115mm, known as the minimum landing size, to be landed as opposed to 140mm in other parts of the UK and Europe.

³³ A whelk is a marine gastropod.

Variability in crab stocks also has implications for those working in related industries. One of the processors in Cromer, Jon, explained that the velvet crab (*Necora puber*), was abundant for a few years between 2004 and 2006 and were mostly exported as there was no domestic market for them:

I thought they were gonna take over the brown crab fishery. That was really hard work cos they all go live and have to be handled really quickly and we didn't really have the set up here to do it properly anyway. But they went South and they ended up on Dover beach, thank God.

As the four quotes above demonstrate, small businesses and family enterprises, which depend on crab, are directly influenced by variations in stocks. Any level of investment therefore presents a great level of uncertainty and risk, which I explore in Chapter Five.

In one of my early interviews, when fishermen were impatiently waiting for crabs to 'come out of the ground', Tim, exclaimed: "I hope that's gonna shock us next week. The bank balance is getting a bit low!" Finally, in May, after 6 weeks of cold wind from the east, the season turned out to be very good despite the warning issued by CEFAS and the IFCA at the start of the year. At the end of the season, Bill, told me: "People are saying that this year is like old style crabbing. It's been really good."

What is striking in talking to the fishermen is the unpredictable nature of their job and the uncertainty they have over their income from one year to the next. Although they can adapt to the changing environmental conditions, much of this is also out of their control and often difficult for fisheries scientists to predict. Resilience to these types of changes requires a certain degree of flexibility and a willingness to adapt in response to change.

4.3.2 Exploitation levels and sustainability

Despite inter-annual variations in crab stocks, the overall trend many fishermen agreed was one of decline, mismanagement and overexploitation. As John, a processor in Cromer said: "You do get peaks and troughs but gradually the graph is slowly going down which is why I think we have to put some sort of conservation measures in place. "

Annual catches recorded by fisheries inspectors show that, between 1956 and 2014, landed catches by beach boats have varied between less than 200 tonnes to nearly 1300 tonnes, when landed crab peaked in 1987 (Figure 4.5). Overall landings in North Norfolk have been under 700 tonnes over the last few years, (IFCA, 2015) compared with landings of over 1000 tonnes per year in the late 1980s to

1990s. The majority of landings are from Wells, Cromer and other parts of North Norfolk (IFCA, 2015, Figure 4.3).

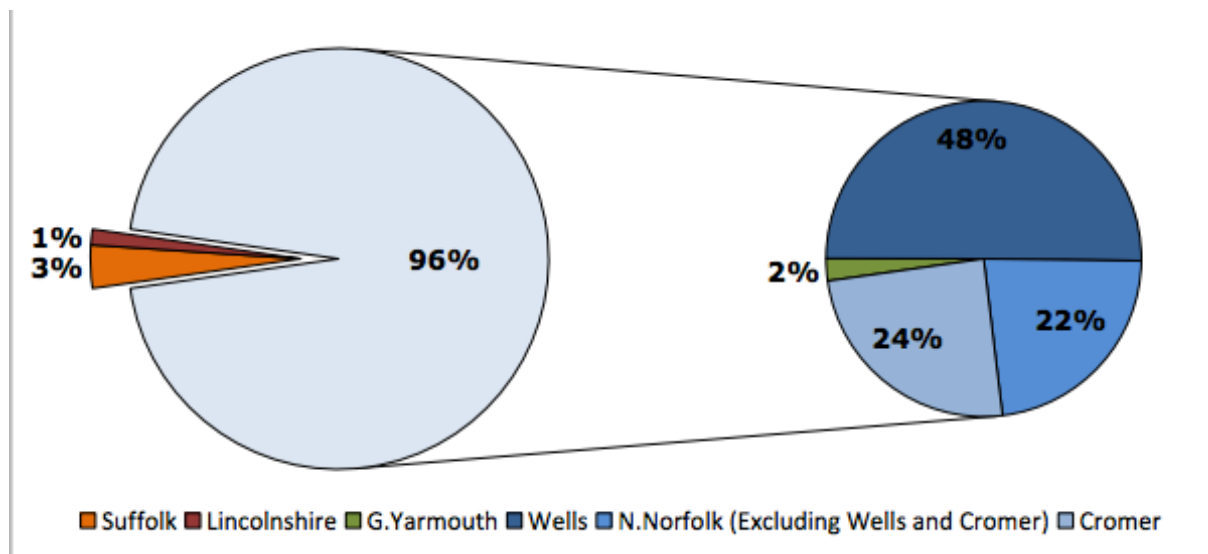


Figure 4.4 Proportion of crab landings recorded in the Eastern IFCA district

Although historical trends in a fishery such as the level of catches can help indicate what levels of exploitation may be sustainable over the long-term, they do not on their own allow any accurate assessment to be made of stock status. Firstly, it does not take into account the effect of changes in fishing effort or efficiency. Secondly, changes in catches do not reflect changes actual abundance. Catchability is dependent on many factors including gear efficiency, fishing methods, and natural factors such as water temperature which influences crab mobility and processes including migration and stock recruitment. The purpose of Figure 4.5 is therefore simply to show how this fishery has developed over time in terms of its landed catch.

The Eastern IFCA's 'Research report' in 2013 concluded that 'none of the areas examined seem to be suffering from overexploitation' (p. 181), but that monitoring is required 'as a number of the most important and heavily fished areas appear to be reaching the threshold of sustainability' (p.182). However, as recognised in the report, this assessment, for which Maximum Sustainable Yield models were developed, is only based on landing and effort data submitted by fishermen between 2006 and 2013³⁴ which as Figure 4.5 shows is the most stable period, and therefore the least variability in data on which to build a reliable model. The model was updated in 2015 with 2014 data and the new report concludes that the sustainability of the Norfolk crab fishery is still uncertain but that effort

³⁴ Shellfisheries monthly returns were introduced. However, the quality of these data are low and misreporting is suspected.

should be capped (IFCA, 2015). However, the effectiveness of different conservation measures on crab populations and whether they would result in more crab for the beach fishermen is unknown.

Many of the beach fishermen attribute the decline in crab to the growth in offshore boats fishing from Wells. As prospects declined locally for whelk and shrimp as well as for cod and herring from Lowestoft and Great Yarmouth, these boats shifted to crab stocks as have other large offshore crab boats from other UK ports. Jim, a 48 year-old Cromer fisherman, said:

The massive change since I left school is they now catch crabs out of Wells. They started in the late 1980s. And apart from one year [...], 2002, there has been a slow decline. We know what we catch year on year and we know what it used to be when we were kids. When they started going out of Wells, they were landing 60-80 boxes³⁵ per day but now they only land about 10 boxes a day on a good day. The stocks cannot stand the hiding that they took. And it will finish it. They have got to be stopped.

A fisherman from East Runton, interviewed by a MSc student from UEA explained that, in 1988, a fisherman noticed an increase in crabs as whelks were declining on the Race Bank, a traditional whelking ground (Holsey, 1996). The whelk fishery from Wells failed repeatedly between 1980 and 1983, and several boats switched to crab from 1984 onwards. In 1987, six boats were reportedly targeting crab followed by six more in 1988 (ESFC, 1988). By 1989, a decline in crab landings was observed everywhere except for Wells where six extra berths were funded in the harbour (ESFC, 1989). By 1994, 19 boats were active from Wells (ESFC, 1994). The Race Bank is considered a spawning ground for crab, and several fishermen commented that they had seen lots of small crabs there in the past. Nick explained:

What did us no favours is the Wells boats. When they cleared up [the whelks], they turned over to crab. That's all the crabs from here that go out to the Race Bank towards the Wash and spawn. That's what keeps our fishery going. I think that had a big effect.

Jim, who also fished from Wells in the 1990s, also extended this concern to the increased fishing effort on crab stocks around the country, by what are referred to as nomadic fishing vessels fishing off the Norfolk coast.

When we were just a little inshore industry, the stocks held up year on year. In 1953, there was a tagging experiment off the end of Cromer pier. Those tagged crabs were caught off Newcastle, off Lincolnshire way and the Yorkshire coast. So they proved these crabs migrate to breed and migrate back. But, in them days they weren't being caught when they were on the move.

³⁵ One box is 30-35kg

Concerns have been expressed now and in the past over how reliable assessments in the Southern North Sea are and more research has been called for by fishermen (Eastern Daily Press, 2013d). There is still a great deal of uncertainty in the assessment of brown crab, which has perhaps been less of a priority for research than other fisheries which are managed by European quota. Future management measures will clearly need to be coordinated around the coast if they are to be effective. Given the lack of funds dedicated for research, collaborative projects between fishermen and scientists may be necessary for improving scientific knowledge necessary for fisheries management (Mackinson *et al.*, 2011).

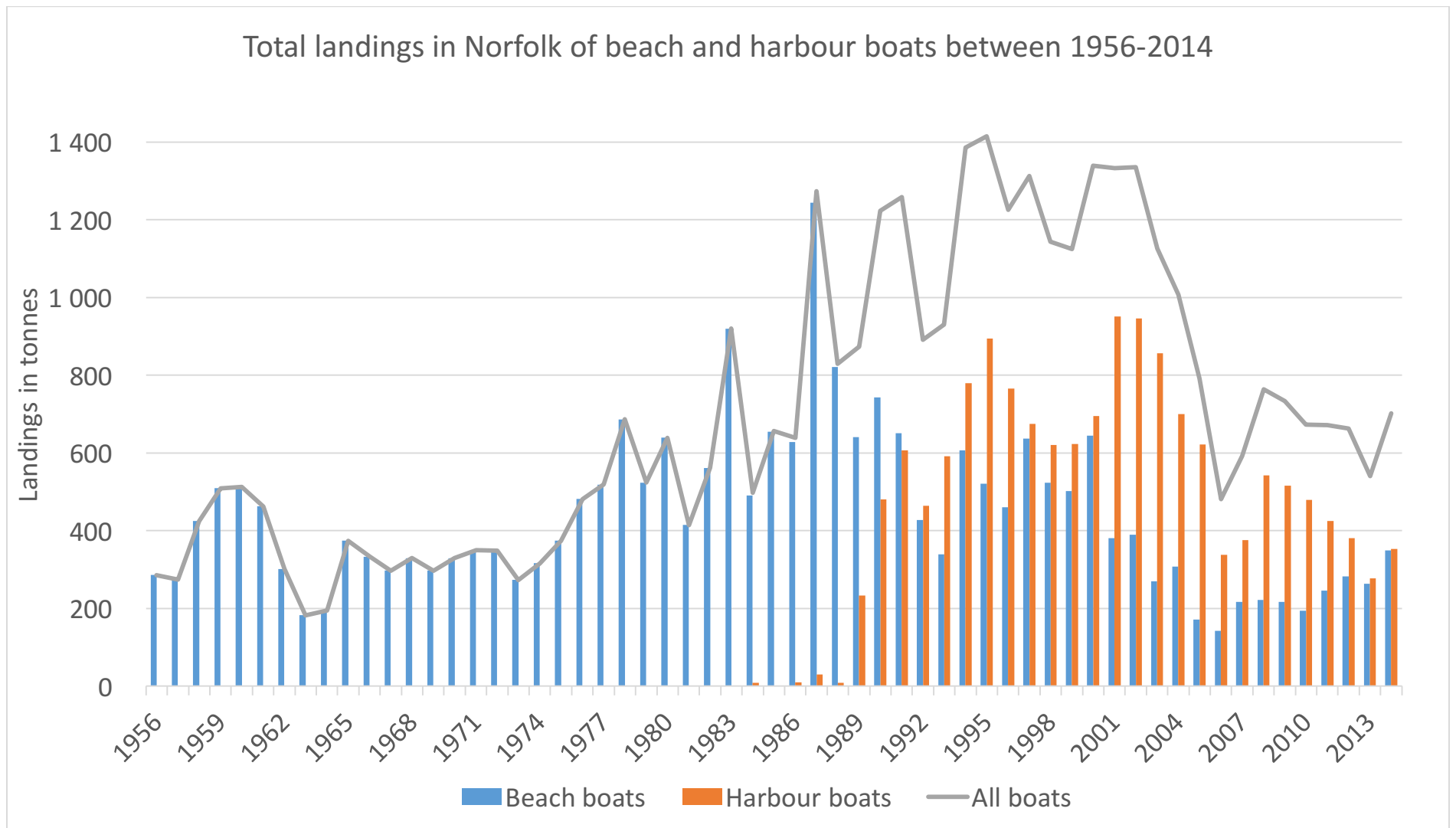


Figure 4.5 Crab landings of Norfolk of beach and harbour boats between 1956-2014. (See Appendix Table 4.1 for detail)

4.3.3 Changes in gear, effort and efficiency

Fishing effort has increased in terms of the total number of pots³⁶, despite the decline in number of boats and fishermen since the 1990s. The estimated number of pots had doubled to 8000 between 1875 and 1909 (Stibbons *et al.*, 1983, p.55). Between 1965 and 1975, the total number of pots used was between 4000 and 6000 (ibid) and by 1995 over 12,000 pots were in use. Over the last three years, 2011-2013, the total number of pots used annually by harbour and beach boats was estimated, by IFCA fisheries inspectors, to be 20,000.

As employees from the Wells harbour authority explained to me, there has been a notable increase in fishing effort over the last two decades from harbours including Wells, Blakeney and Brancaster. These boats fish out to 20 or 40 miles and stay out for over 24 hours. Many are able to fish for crab 12 months of the year depending on the weather. Beach boats also fish longer, but slow down from October and stop in November or after Christmas and have January off, until the season starts again in the spring, to maintain the gear and boats. Boats from Wells and other Norfolk harbours may have about 2000 pots in the water compared with an average of 100-200 pots for beach boats. Whereas an average of six shanks³⁷ would be hauled and re-baited for the next day, nowadays a week or two can pass before a boat hauls its shanks, due to the number of pots in the water.

Improvements in fishing technology have played a big part in the increasing effort in terms of number of pots and changes to boats. Following the introduction of hydraulic pot haulers in 1969, the number of pots used increased by 38% over 4 years (MAFF, 1973). Reductions to number of crew and boat size were facilitated by improvements in technology and gear. Robert in Cromer, recalled:

When I went there were 2 or 3 men. You had to haul by hand. The first big change was when the pot haulers came in.... There was then a trend that a 3 man boat became a 2 man boat because the pot hauler did the work of a man. The heavy work.

Not only has the number of pots used increased, but the efficiency of pots has improved with wooden pots being replaced by metal parlour pots since the 1970-1980s (Weatherhead, 2011). They are larger and allow less opportunity for crabs to escape. Robert told me that when he started “all wooden crab pots were with Manila twine which you had to renew every year” which involved hand braiding nets over the winter. Ready to use synthetic twines were later introduced and iron parlour pots. Their design was more practical and required less maintenance. As Tom told me:

³⁶ small traps baited with fresh or salted fish which are set down on the seabed

³⁷ A shank is a Norfolk term for a string of usually 25 or 30 pots which are bound together.

Now we use parlour pots 90% of the time. We don't use parlour pots to catch any more crabs. It's mainly for ease. When you haul it up you can get the crab out one end and bait the other end. In the other pots you put two bait strings.

Trends in CPUE are a conventional method of fisheries assessment, which assumes a linear relationship between catch and effort. However, it cannot reliably determine a sustainable yield because the catchability of crab varies as the gear changes (Jennings *et al.*, 2001). For example, some fishermen say wooden pots 'fish better' at certain times of the year. As beach boats tend to be relatively selective in the catch they land, throwing back low quality crab, the relationship between landed catch and effort is not obvious. Apparent increases in effort in this fishery are clear over time, particularly due to improvements in technology. What is less clear is whether the current level of effort is sustainable in the long-term or what a sustainable level of catch might be.

4.4 Market changes

In addition to fluctuations in the crab stocks due to natural fluctuations or changing patterns of exploitation, fishing behaviour and livelihoods are strongly influenced by market trends. For instance, Joe recalled:

You would go to Norwich, with your truck full of crabs [but] when the fruit had come in you wouldn't get rid of half of them. You could still sell them in coastal places but inland they wanted fresh fruit! That's why we were lucky because the quality of crab used to deteriorate³⁸ anyway and then the lobsters³⁹ would start to come in.

Today, the demand for crabs can be fulfilled all year around, particularly by the offshore harbour boats. In this section, I trace back the development of the crab fishery and how this has been influenced by supply and demand.

4.4.1 Development of processing factories

The North Norfolk crab industry developed with establishment of railway lines in the late 1880s to Norwich and London. However, in 1976 the rising cost of rail travel led fishermen to start selling crab to local merchants for a similar price (ESFC, 1977). Annual ESFC reports from 1977-1979, indicate that as the fishery developed, the supply of crabs would exceed local demand and excess would be sent to factories in the Midlands.

³⁸ Crabs start to moult towards the end of the summer when they 'shoot their shells' and are referred to as soft crabs. Once female crabs become larger and mate, they move further out to sea.

³⁹ Lobsters are said to be in season around the time of Wimbledon (late June)

This opportunity was seized by two locals, including an ex-fisherman, who opened a factory in Cromer in the late 1970s. Other locals from the fishing community opened small to medium sized factories including one in Sheringham, the Norfolk Shellfish Company, and two in East Runton, Bywater Shellfish (in the late 1980s) and Jonas Seafoods in 1995, which became a Limited Company in 2004. As the production capacity of these factories grew, so did the level of fishing activity. The Cromer factory began by processing crabs bought from local fishermen employing 25 seasonal staff (interview record from Cromer museum, 1984). They sold solely to the UK market, and offered prices for crab that were higher than King's Lynn but less than what fishermen could obtain selling privately. This factory doubled in size in 1983 and following some difficulties (North Norfolk News, 1984) and several take-overs, it became known as the 'Cromer Crab Company', registered as a PLC in 1987 before eventually being bought by the multi-national, Young's Seafood Limited. Whereas annual Eastern Sea Fisheries Committee (ESFC) reports from the 1970s-80s, reported supply falling short of demand, the opposite trend is noted in reports from 1988 to late 1990s with supply regularly exceeding demand. Brian, 40 from East Runton related his experience of selling to the Cromer Crab Company:

When I started in the mid-80s, everything I caught I sold [to a relative] live. Then I got in with the crab factory and used to sell everything live to them, except for the lobsters. The Cromer Crab factory used to basically take everything everyone got and they kept getting bigger. That made life easy for everyone. Everyone was happy. And that's the main reason [one fishermen got a bigger boat], to supply the crab factory. He had it built in [the summer of] 89 and by November, the crab factory couldn't take any crabs. They didn't have any sales for the winter. It was like 'Well we've just got this brand new boat and now you're telling us to finish for the winter?'

Increasingly local factories would favour larger sized crab, usually caught further offshore, for export rather than the smaller crab caught by beach fishermen. Prices declined due to the high supply and the Cromer factory even set up a quota system per boat to avoid oversupply. Brian added:

As they got bigger they mucked you about more and more. They would say 'We want everything. Only give it to us'. And as soon as they got a lot of crabs from everyone, they'd say 'No crabs for this weekend'. Then 'No crabs from Thursday until next Monday'. They were overloaded [...] Also they used to, which we've found out since is illegal, they used to knock off a certain amount of lossage. You waited 5 weeks before you got paid, [...] and they'd say there was 10%, 20% lossage⁴⁰ that week and they'd knock that much off your money.

⁴⁰ Lossage refers to the weight of raw product discarded during processing compared with the weight of the final sold product.

Prices offered by the largest factory in the area, the Cromer Crab Company were particularly low in the early to mid-90s (Figure 4.6). Fishermen could not 'get rid of' their catch which resulted in prices being driven down lower and lower as fishermen started to undercut each other. By 1992, factories were increasingly buying crab from larger offshore boats, which could make up for lower prices by supplying larger quantities.

Low crab prices from the late 80s to 90s resulted in beach fishermen processing most of their own catch for private sale, only selling the excess to local factories or merchants. This trend is noted in a ESFC (1993) report: 'fishermen [are] *forced* to process crabs into a more recognisable ready meal to meet the demands of the 20th century housewife as supply continues to exceed demand' (my emphasis). This implies that this was necessary to make ends meet rather than being a strategy elected by fishermen to top up their earnings. A fisherman from West Runton said that in 1996 the typical price for a dressed crab (250g) was £1.20 to a hotel or restaurant, £1.00 at a market, and £0.70 to the factory (Holsey, 1996). Live or boiled unprocessed crabs were sold for £0.15 to the factory or £0.65 privately. Factory prices rose again to £1-1.20/kg in 2003-2006 for unprocessed crab and have remained at around £1/kg (which is similar to 1996 prices when inflation is considered)⁴¹. Reflecting rises in cost of living increases and inflation, Tom who is 45, told me: "They used to say that you would get the same for a crab as a pint of beer but now you don't get £2 for a live crab now". What is clear from Figure 4.6 is that prices have increased since beach fishermen started processing their own catches while prices in Wells and Blakeney where fishermen don't process have remained lower.

The Cromer Crab Company factory closed in August 2012 and relocated to Grimsby, Yorkshire despite a high profile political campaign which attracted high public support, called 'Keep it Cromer' to stop the loss of 230 jobs (Eastern Daily Press, 2012). In fact, the factory's closure had little impact locally, as less than 2% of the company's turnover came from Norfolk crab in its final year, with the majority coming from processing imported prawns from Asia. Half of the workforce were Eastern European workers commuting from Great Yarmouth (*pers. comm.*, Jonas Seafoods). Today, Jonas Seafoods and Bywater Shellfish continue to be operated by fishermen or ex-fishermen who buy from local beach fishermen and from larger boats in Wells or other parts of Norfolk. In September 2013, Jonas Seafoods expanded and opened a new factory in Cromer close to the closed factory site and maintains a good relationship with local fishermen (Eastern Daily Press, 2013a).

⁴¹ Factory prices in 2013 for a live crab are about 25p (£1/kg). Smaller scale processors were reported to pay £1 per crab (£4/kg) which fishermen consider a fair price. This is higher than the reported average of about £3.20 per kilo

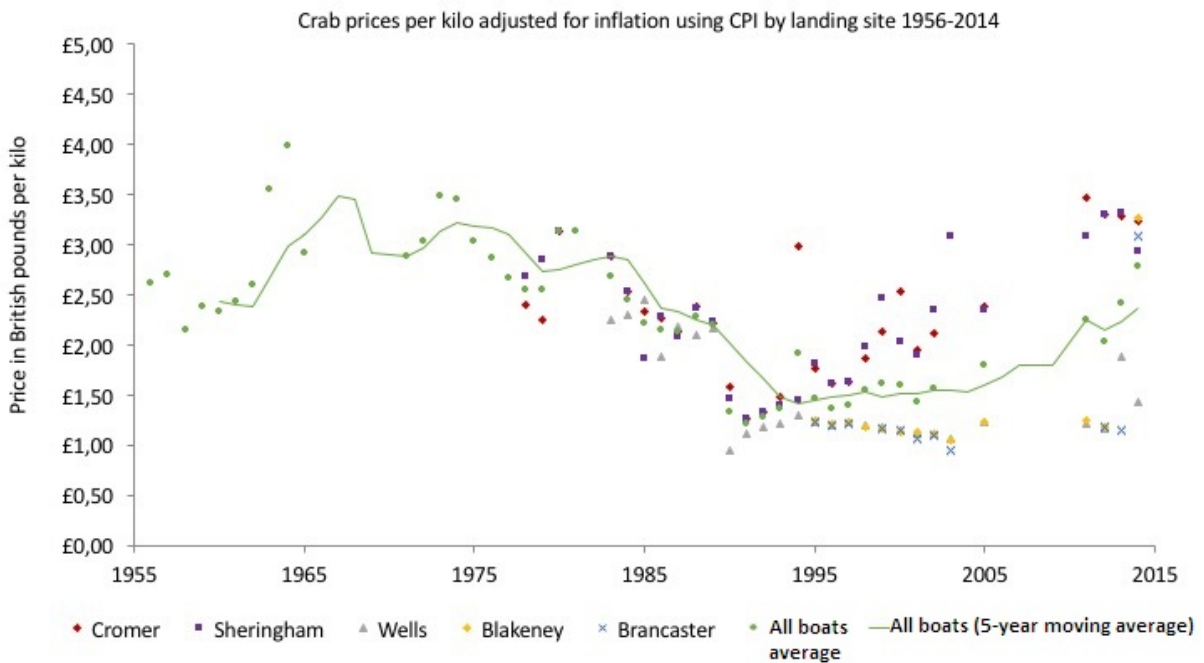
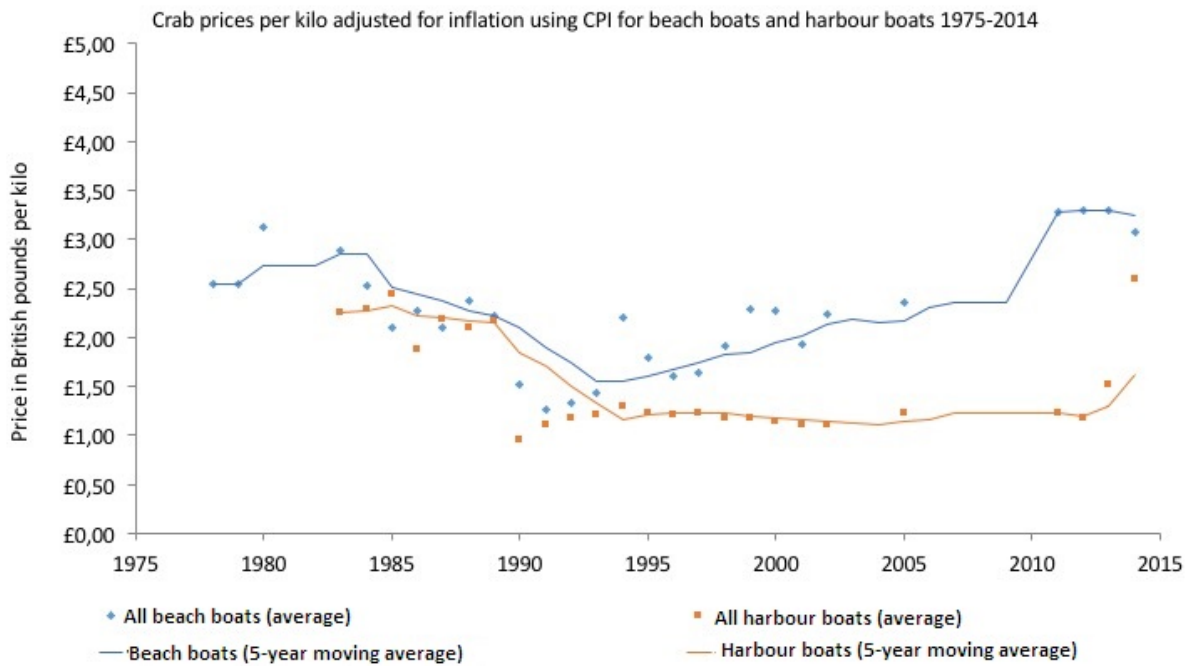


Figure 4.6. Changes in price of crab per kilo between 1975 and 2014 for beach and harbour boats. Graph a shows how the price of crab per kilo has changed between 1975 and 2014 for beach and harbour boats. Graph b shows differences in prices of crab per kilo by landing site. Data source; ESFC and IFCA reports. These prices have been adjusted for inflation using the Consumer Price Index (CPI) as calculated by the Office of National Statistics (ONS). See Appendix, part 4, for data and for graph showing original prices and the CPI used.

4.4.2 Difficult times, increasing costs and declining income

As I have indicated, the Norfolk crab fishermen went through difficult phases, particularly in the 1970s when the price of rail transport increased, and the early 1990s. A report by the Eastern Sea Fisheries Committee in 1976 describes that ‘the fishing industry in this area remains finely balanced and on an economic knife-edge’. The 1990s were particularly bad years for many beach fishermen, as evidenced by several news articles (see Table 3.1 in Appendix) with headlines such as ‘Fingers crossed at the start of the crab season’ in 1990. The dramatic drop in catches is explained by mild winters and ‘more and more fishermen desert the sea to seek a more reliable living’. Later that year, another headline ‘Crab fishermen face ruin in shellfish scare’, reports that crab sales dropped across the country due to reports of toxic algae in the North of England. In 1992, the North Norfolk News reported ‘Crab fishermen feeling the pinch’, saying that prices have declined as operating costs have risen and have sought other employment over the winter. A fisheries officer is quoted saying the problem is not a shortage of crabs but of low prices in ‘a cottage industry on the fringe of a market now being flooded by larger vessels and imports.’

Today, fishermen in Norfolk and other parts of England (Morgan, 2013) complain of low prices for crab and an increased cost of living. Older fishermen including Robert, Joe, and Donald recalled times where an income from a job at sea was more than on land. Increased operating costs have affected the profit margins of fishing families. For instance, the price for bait has doubled in last 3-4 years as the supply from local boats has declined. Tom told me:

The expenses... [make it] harder and harder every year. I mean, the fuel bill is sometimes £300 per month per boat. And then bait. You’re talking couple of thousand nearly some months for bait. And just the materials, pots. Those metal pots I have out there, when I started [in late 1980s] they were £12 a pot. They have all [increased], but the crab and lobster prices have not.

He added:

The trawlers at Lowestoft, used to bring all the fish in. But now, as there’s no trawlers, it’s hard to get fresh bait. We use a lot of scad from Ireland. About 20 kg of scad is £20 per box. If you are baiting hundred and 20 pots you need three boxes of bait, well that's 60 quid expenses before you even start earning anything.

Fishermen often complained about the increased level of ‘red tape’ they have had to deal with which has imposed further costs and requirements, which have put an additional strain on small businesses as expressed by Joe: When the rules for hygiene came in, and transport etc... *that was another stab in the back*. We needed chilled transport, and I had to have a white hat on when I took lobsters to the Cliftonville [hotel] (emphasis added).

In the past, it would have been common for fishermen to take up other employment opportunities in the rural economy. Older fishermen talked of well-paid seasonal work carrot picking in Norfolk during the winter, and of earning additional income from tourists in the summer. Fishermen would run boat trips for tourists or rent out 'bathing machines' on the beach. It was also common for fishing families to rent out their houses and move into their shed for the summer (Stibbons *et al.*, 1983). However, today it is more difficult to find worthwhile short-term seasonal work compatible with fishing. In the winter, some fishermen take up manual labour such as construction or mechanics, or short term contracts with marine industries in harbours. However, most beach fishermen tend to focus on boat and gear maintenance with some limited net or line fishing.

4.4.3 The wider economy and alternative employment opportunities

Regional inequality and the cost of living have generally gone up in Norfolk as in other parts of the UK. The median annual salary was £18,008 in North Norfolk compared with £26,244 in the UK in 2011 (ONS, 2011b). At the same time, North Norfolk has become an increasingly expensive place to live (average house prices at £214,899 in 2012, the highest in Norfolk) despite having some of the lowest average wages in region, explained by the market for retirement and second homes (Norfolk Rural Development Strategy, 2013).

Cromer is ranked in the 10% worst areas nationally for access to employment and GCSE and A-level results in North Norfolk are amongst the lowest nationally (Norfolk Rural Development Strategy, 2013). Thirty seven percent of the population in North Norfolk is economically inactive⁴², partly due to 28% of its population being over 65 years old. The main sources of employment in Norfolk are in the construction, retail, transport and accommodation and food (39%), public administration (26%) and business including communication, insurance and real estate (15%) while fisheries and agriculture represents 3% of employment (*ibid*).

More recently, the renewable energy sector has been providing jobs in the region. East Anglia (Great Yarmouth and Lowestoft) now represents the second largest centre for this sector after Aberdeen. Norfolk is expected to attract £50 billion in investment by 2040 and already employs 18,850 people (Norfolk Rural Development Strategy, 2013). Sheringham Shoal, which was completed in 2011, a project which was worth £1.1 billion, employed 650 people per day when it was being built. Another important industry in Norfolk is tourism and although gross value added from tourism dropped

⁴² This is defined as those who are not seeking work such as those who are retired.

during the economic recession from £104.4 million in 2007 to £70.4 million in 2009, it has been slowly recovering (ONS, 2013). A study by East of England Tourism (EET, 2010) found that day trippers are particularly important in Norfolk, representing 61% of all visitor spending, 35% of which can be accounted for through food and drink, a total direct spend of £632 million in 2010. Norfolk Rural Development Strategy suggests that the opportunity for growth in the future could come from linking tourism to the food, drink and rural craft economy to which the local fishing industry contributes. However, the reliance on day-trippers means that sales are often dependent on good weather.

In addition to changes in natural resources (section 4.3), fishermen are also exposed to changes in supply and demand, rising operating costs and have limited alternative employment opportunities, which would have allowed fishermen to cope with poor fishing seasons in the past.

4.5 Fisheries management and policy

The context of fisheries management in the UK has changed from open access, with a public right to fish under common law, to an increasingly complex system involving restrictions on input (access rights and effort limits) and output (limited catches). In this section, I trace back the policy context which led to the current governance regime for crab fisheries and to regulations which have indirectly impacted inshore shellfish boats, starting with the introduction of fishing licences in 1993 for Norfolk crab fishermen, which now restrict new vessels from gaining access to the fishery.

4.5.1 The introduction of licences

Crab and other shellfisheries are much less regulated by comparison to other fisheries in the UK as they are not subject to quotas. The only limits in place in the Norfolk crab fishery are technical measures, including minimum landing sizes and restrictions of landing berried (egg carrying) or soft (recently moulted) crab and lobster⁴³. Nevertheless, Norfolk crab fishermen have been affected, often significantly, by policies intended to manage other fisheries.

⁴³ Current byelaws also prohibit the use of crabs as bait and the landing any white-footed crabs (not fully hardened crabs) between the 1 November and the 30 June. Statutory laws in place which prohibit the landing of berried (egg-laying) or soft (recently moulted) crabs as well as a minimum landing size of 115mm for crab and 83mm for lobster.

The Sea Fish (Conservation) Act and Sea Fisheries (Shellfish) Act, in 1967 established a legal basis for the introduction of licences and quotas to be set 'for the purpose of preventing overfishing'. The first licences were issued free of charge in 1971 for North Sea herring through which quotas were distributed in 1974. The conditions attached to these licences was developed through a further Act in 1976, which also extended British jurisdiction over their waters to 200 miles from 1977, instead of the previous 12-mile territorial limit (Hatcher and Cunningham, 1994; Phillipson and Symes, 2001). By 1983, licences had been introduced for most commercial fisheries referred to by the government department for fisheries as 'pressure stocks' including mackerel, herring and cod. Although licences were mostly limited to vessels over 12 metres, smaller inshore boats targeting North Sea herring were required to be licenced. Between 1987 and 1990, 'non-specific' licences were introduced for all the remaining over 10 metre vessels which were targeting so called 'non-pressure' stocks, which included shellfish. The number of licenced over 10 metre vessels was around 3,200. From 1993 all remaining vessels without a licence (around 7,500) were all given a licence (Hatcher and Cunningham, 1994). Tim, explained how he understood the development of licensing and its effect on crab stocks:

All of a sudden there was more pressure being put on the crab stocks. As the whitefish was getting harder to catch and more quotas being put on, [fishermen] thought 'Hang on a minute we can go on to shellfish, that's unquoted and we can catch as much as we like!' Those boats stopped trawling and transferred over to vivier⁴⁴ crabbing [boats]. So actually they put pressure on the shellfish stocks by bringing out licences.

David had a similar view on the development of licensing:

The whitefish depletion has caused the crab depletion if you like.... To start with I think it benefitted it because the crab didn't have that many predators apart from man. A lot of boats that had to pack up fishing, sold their licences which were worth a lot of money, bought a non-specified licence which we have basically just for catching shellfish. You can get a crab licence for next to nothing... so they all turned to crabbing and the government thought hang on a minute... we are letting in too many people but again that was too little too late...

As no new fishing licences have been available since this 1993, the only way to now enter the crab fishery is to find an existing licence (usually at a cost imposed by its owner) which matches the unit capacity requirement of the vessel (engine capacity, and vessel length) which can be transferred to it. Licences can be pooled together from several vessels but incur a penalty in terms of total capacity. Most beach crab fishermen have an under 10m licence with a shellfish entitlement which allows

⁴⁴ Vessels with live holding tanks which can stay out at sea for long periods.

them to catch and sell any fish not under quota including shellfish, typically crab, lobster and whelk⁴⁵. In addition, these vessels have a capped licence for 300kg annually of any quota species and 5 tonnes of bass per week. A limited number of Norfolk crab fishermen also have an 'uncapped licence' which allows a certain amount of quota fish to be caught per year.⁴⁶ Licences can be modified by the government or revoked if conditions are not fulfilled (e.g. records cannot demonstrate the need for such a licence, or illegal activity). Access into fishing has therefore changed over the last four decades from an open access system to one that is increasingly difficult to partake in.

4.5.2 Policy impacts on small-scale fisheries

A common strategy for livelihood adaptation in small-scale fisheries is switching from one species to another in response to seasonal distributions and annual variations (Allison and Ellis, 2001), as the Wells boats did in the late 1980s. In the past, beach fishermen would fish for crab from mid-March to mid-September and at then spend the winter 'long shoring'⁴⁷; long lining for cod, or whelking. The ability to switch to different stocks afforded fishermen a way of buffering the effects of a poor crab season. However, this flexibility has been severely limited by the introduction of quotas and restricted licences for under ten metre boats. For instance, Tim explained that in the 1980s he spent the winter in Southwold, in Suffolk:

Things were quite prosperous then cos we had a winter's work and a summer's work, everything's changed now. All the boats have gone. That's all gone and dusted thanks to DEFRA and their stupid quotas. It was lovely living up there in the winter time.

While he attributes the decline in opportunities to fish elsewhere to policy change, other fishermen also recognised the effects of overfishing by other fishermen. Joe, from Cromer reflected:

There is no other species out there really. Not like there was. There used to be lots of whelks but they cleared them up very quickly. There used to be lots of prawns and shrimps. There's no oysters, there's no fish. It's been overfished. Not by these boats mind, by big boats, many of them foreign.

The main issue as Tim saw it was that the indirect impacts on smaller boats have been ignored. When I asked him what he thought of government intervention in fisheries management, he responded:

⁴⁵ A boat without shellfish entitlement can catch up to 30 kg a day of shellfish

⁴⁶ an uncapped licence valid from 1 July 2014 until 30 June 2016 currently allows boats under 10 metres to catch: 3.5 tonnes of cod from October to December; 10 tonnes herring and 250kg horse mackerel, 6 tonnes of mackerel and 5 tonnes per week of sprats, 5 tonnes per week of sea bass.

⁴⁷ This is a traditional fishing practice in Norfolk which involves driftnet fishing.

That's alright if that's done properly. Stop the massive boats working loadsa gear and that, but I don't think it will work. It will always hit the little boats. Like with the mackerel and the cod. The big boats are allowed to still keep going but the little boats can't get enough to make it worthwhile to go. And if they're going to do this to the crabs. You can see what's coming....

This also reflects some mistrust in government among fisherfolk. Still fresh in some of the local fishermen's minds, is the effect of a five-year North Sea herring fishery closure in the late 70s. For years, scientific advice was ignored and action delayed due to inability of countries involved to agree measures for this economically important shared stock (Corten, 1986). Membership of the United Kingdom to the European Community in 1973 meant that national fishing grounds out to 200 miles were open to European vessels and the UK was unable to implement a ban until 1977. The Southern North Sea stocks recovered quickly and the moratorium was lifted in 1981, but fishing capacity and the market demand for herring had disappeared and has still not returned (Dickey-Collas *et al.*, 2010).

Finally, another policy with indirect effects on Norfolk fishermen is the European Western Waters regime (Council Regulation (EC) No 1954/2003), which regulates fishing effort for over 18 metre vessels targeting demersal species, brown crab, spider crab, and scallops in the western Atlantic. Since 2013, the UK started to actively manage and monitor the crab fishery in south-western waters of the UK through an industry-led voluntary agreement which commits each over 15 metre vessel to reducing its days at sea in 2013 by a minimum of 20% based on historical levels of activity. These, over 15 metre vivier boats, have live tanks on board enabling them to stay out at sea and continue fishing for weeks at a time. This may explain what Bob, 60, had observed in April 2013:

We're just experiencing South coast vessels coming round onto our ground. They've got pot limitations down there [and] they're after whelks up at Sea Palling way. We've never experienced that before. They're classed as nomadic vessels. They've got 7, 8, 900 pots [each] and they're sort of migrated to our area.

The development of these and similar policies has had unintended consequences for small-scale fisheries. These indirect impacts have been missed by impact assessments meaning that adverse policy impacts have surfaced once policies are already in place.

4.5.3 Fisheries governance in the UK: implications for marine planning, conservation and fisheries management

In 2009, a new framework for marine environmental and fisheries policy was established in the UK under the Marine and Coastal Access Act (MCAA). It created a new organisation, the Marine Management Organisation (MMO), which oversees the implementation of the MCAA in England and Wales. I will mention just a couple of the changes that the Act brought about in England which are of relevance for this thesis which I will return to in Chapter Eight. The first relates to marine planning, the licensing of marine development and marine conservation. The second relates to fisheries management which was reformed regionally by setting up Inshore Fisheries and Conservation Authorities (IFCAs). I then discuss a community partnership set up with EU funds in North Norfolk in 2011 to sustainably develop its fisheries. Finally, I introduce one of the main fishermen's organisations in Norfolk and its role in governance. After explaining each of these three main institutions, I summarise their differences in structure and function in Table 4.1.

Marine Planning and conservation

The MCAA introduced a new approach to marine planning including the establishment of a network of marine protected areas called Marine Conservation Zones (MCZs) and introduced a new licensing system for the development of marine industries which has been significant for offshore wind energy. As part of this, Inshore and East Offshore Marine Plans were adopted in April 2014 for the East of England which identify all the important activities in the inshore and offshore areas including fisheries. The plan considers the societal value of fisheries, which "provide important contributions to food security and healthy diets (see FISH1), and form an important part of our cultural and heritage assets, which in turn attracts coastal tourism. *Some people may never even visit the coast, but still value it through various media and through its role in defining national identity and culture.*" (DEFRA, 2014; p.49, emphasis added). However, there is currently a lack of consideration of impacts of policy or development on these social and cultural values in the UK (Walker, 2010).

I will return to the governance issues around marine planning, conservation and fisheries in more detail in Chapter 8, however what is important to note here, is the increasing competition for marine resources. Not only has the flexibility to make up income from other fisheries been reduced but other maritime industries have developed which are perceived to have encroached on the available fishing grounds. As Robert from East Runton explained:

It's been a gradual thing. We've been impacted on by outside. [...] First that was the gas pipelines since the 60s [off Bacton]. Next thing we know is people are talking about

Sheringham shoal [wind farm]. The bigger vessels further off, have [had to] move in quite close to our ground and we're trying to protect our area. And of course we've got the conservation bodies that are keen to get involved in our area. On the chalk reef.

Robert mentions the 'chalk reef', which has been proposed for designation by Natural England as a MCZ. The proposal has been highly contentious as some groups have argued for a fishing ban on the chalk habitat which coincides directly with Norfolk crab fishermen's fishing grounds. Robert also mentions increasing fishing pressure from larger fishing boats, and the growth of marine renewables in the Southern North Sea. The MCAA makes no provisions for managing the potential conflicts that may arise between activities such as fisheries and other marine uses such as renewable energy (Rodwella *et al.*, 2014b). The governance framework for fisheries and marine activities has changed and has altered the space that the fishing industry has to operate within a growing landscape of other industries and interests, from marine renewables to marine conservation.

The Inshore Fisheries and Conservation Authority (IFCAs)

The Sea Fisheries Committees (SFCs), which had been the executive institutions responsible for regional fisheries management in the inshore area in England since 1888, were replaced by IFCAs in 2011. Guidance from DEFRA (2011), from whom they have devolved powers and to whom they report, outlines a number of functions and principles for IFCAs including enforcement, engaging with stakeholders, responding to statutory consultations, conducting research to support decision-making and communicating with the public. Although the IFCAs remained largely similar to the SFCs, marine conservation and stakeholder engagement for example, with regards to proposed MCZs are new responsibilities. They are also tasked with ensuring exploitation is "carried out in a sustainable way", and balancing "social and economic benefits with the need to protect the marine environment" (MCAA 2009, Chapter 23).

In the East of England, the Eastern IFCA have jurisdiction for up to six miles from the coast between Lincolnshire and Essex. Their powers of enforcement have been extended, and they can propose new local legislation in the form of byelaws. IFCAs therefore have a broad including other roles, which are not specifically stated. For example, Bob said:

The IFCA could be classed as mediators to a certain degree. We've had issues in the past with like surfers at Cromer and along the coast and divers and IFCA seems the strongest body to be able to mediate between the divers and the fishermen. And with the Wells offshore fishery.

As well as responding to national policy, the IFCA's work programme is guided by a Committee of 21 members including six Councillors and three public body representatives from the MMO, Natural England and the Environment Agency. Eleven other voluntary members are appointed for up to four years by the MMO through an interview process to include interests from commercial and recreational fishing, marine conservation and other sectors or interests relating to the marine environment. Until April 2015, when new Cromer fishermen were appointed, no North Norfolk fishermen were represented on the IFCA committee. The IFCA's day-to-day work is carried out by their staff including a Chief Executive Officer (CEO), Deputy Chief Officer, Research Officers, Enforcement Officers and administrative staff.

In addition to the evolving governance framework in the UK, it is worth mentioning the influences from European legislative and policy frameworks on the IFCA's work programme. As the CEO of the Eastern IFCA told me: "By 2020 we need to have our inshore fisheries at MSY". This target specifically relates to the Common Fisheries Policy (2014) and the Marine Strategy Framework Directive (2008), which aim to achieve 'Good Environmental Status' in all marine and coastal waters. International conservation commitments under the Convention on Biodiversity and the Oslo Convention have also shaped the agenda for establishing networks of MPAs by 2012. The new IFCA's therefore now have responsibility for not just local inshore fisheries management but also for marine conservation, much of which is driven by EU policy.

4.5.4 Bottom up approaches for the sustainable development fisheries

In response to criticisms of European fisheries governance being too top-down (Gray and Hatchard, 2003) and the failure of the Common Fisheries Policy to address social issues in fishing communities (Symes and Phillipson, 2009), the European Commission developed funding for Fisheries Local Action Groups (FLAGs) through Axis 4 (Sustainable development of fishing communities) of its European Fisheries Fund (EFF). These were designed as community partnerships to support fishing communities between 2007 and 2013. I introduce the North Norfolk FLAG and the main fishermen's organisation that represents the largest number of Cromer beach fishermen⁴⁸.

⁴⁸ It is important to note the other organisations that exist. For instance, in addition to the NNFS, there is an independent fishermen's association, formed following disagreements over compensation. Organisations also exist for Wells, Sheringham, Brancaster, and fishermen may have multiple membership.

The North Norfolk FLAG (NNFLAG)

Recognising a need for development aid to support local fisheries, the North Norfolk District Council (NNDC) successfully made a bid funding and as a result the North Norfolk FLAG was set up in 2011⁴⁹. Once established, a FLAG Committee was set up made up of members with voting rights to make decisions over what should be funded. These included individuals with different interests including five fishermen's organisations, individual fishing businesses, processors, local private sector businesspeople, coastal community groups such as Norfolk Coast Partnership as well as statutory bodies including the NNDC, Eastern IFCA, Natural England, Marine Management Organisation (MMO), Seafish, Local Councils. The vision of the NNFLAG was a sustainable fishery, which is 'future-proof' or in other words resilient to change (NNFLAG, 2011). The Committee decided on its strategy, which included its main objectives, on its governance structure and the geographical area the FLAG should cover. The NNFLAG programme was initially managed by a social enterprise, the Norfolk Business Forum that ran into financial difficulty in 2014 and was taken over by the NNDC. Because the process of setting up FLAGs in the UK was rather delayed, once set up the NNFLAG had less than three years to spend funds, which should have been part of a seven-year programme. An extension was granted until the end of 2014 for applications until the end of 2015 to spend funds. The organisation responsible for administering the funds in the UK was the relatively new MMO. A new fund – European Maritime and Fisheries Fund (EMFF) was adopted in the summer 2014 and will run until 2020⁵⁰ however it is as yet uncertain whether North Norfolk will access it⁵¹.

The North Norfolk Fishermen's Society (NNFS) – fishermen's organisation

Several fishermen's organisations play a crucial role in Norfolk fisheries governance as the main vehicle to represent fishermen's views in a united way in consultations and in decision-making in Norfolk and nationally. Few Norfolk fishermen are members of national fishermen's organisations such as the National Federation of Fishing Organisations (NFFO) or NUTFA (National Under Ten's Association).

Initially set up for logistical reasons in the early 1960s when fishermen used to send their crab on the train to be sold in London, it now mostly defends fishermen from externally imposed change. In addition to its role of 'fighting back', it has played a role in the distribution of compensation

⁴⁹ It is one of 6 projects in England, funded through Axis 4 (Sustainable development of fishing communities) of the European Fisheries Fund (EFF), which ran from 2007-2013.

⁵⁰ Regulation (EU) No 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund (EMFF).

⁵¹ The UK has a total budget of 243,139,437 euros but it has not yet published its Operational Programme. Once it is, NNDC will have to decide whether to make an application for funds.

payments from wind farm developments. The NNFS brings together fishermen to discuss issues and develop a collective voice. The Chairman of the NNFS told me:

It's been a gradual thing. First that was the gas pipelines. The next thing we know is people are talking about Sheringham shoal [windfarm]. And then we have these nomadic fishers⁵² coming round. And we've had the conservation bodies, the MCZs, Net Gain. We've got to get involved in all these issues from the start because you know if we don't have a say, later no one's gonna listen to us, they'll just come up with the word and you could have had your input at the start but you didn't. As the Chairman of the Society, I've got to get more and more involved in the politics of these situations. You've really got to fight your own corner. Whereas when I first joined the Society [in the 70s] there wasn't a lot to talk about basically because nothing really happened in this area.

In this way it has the potential to develop and shape regulatory and conservation measures in the fishery for instance with the IFCA and approve funding applications through the FLAG. However, as a recent research report (GIFS Consortium, 2014) notes, there has been a historic lack of collective voice at national or European level by Norfolk fishermen. In particular, the NFFO was referred to the 'No Friend of Fishermen Organisation' by some of the fishermen, because of a perception that they tend to represent larger fishing interests. Over the past decade, North Norfolk beach fishermen have found themselves having to increasingly take part in different decisions, either willingly or reluctantly. In part, this is due to the increasing level of activity in inshore areas, the greater scrutiny of impacts from human activities on the marine environment and the emphasis by policy makers on participatory governance.

⁵² This refers to 'vivier' boats, usually from South-western harbours or from the North of England. They move around the coastline depending on availability of different fishery resources.

Table 4.1 Comparison of structure and function of the three main institutions with a role in the sustainability and resilience of North Norfolk inshore fisheries. Source: websites, official documentation, interview

	THE NORTH NORFOLK FISHERIES LOCAL ACTION GROUP (NNFLAG)	INSHORE FISHERIES CONSERVATION AUTHORITY (IFCA)	NORTH NORFOLK FISHERMEN'S SOCIETY (NNFS)
ROLE			
Vision	<i>"To maintain the sustainability of the fishery by encouraging new entrants, supporting existing businesses and strengthening the already close links with the tourism industry." "We anticipate a future-proof fishery in North Norfolk, ready to adapt and diversify as market conditions change while never losing sight of its core business and heritage"</i>	<i>"Lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry".</i>	<i>"Working together for sustainable fishing in an Industry that dates back centuries..."</i>
Function	Delivery of aims through administration of funding to projects. Discussion of current issues relating to the industry.	Marine conservation and inshore fisheries management. Statutory consultee. Stakeholder engagement. Enforcement.	Represent fishermen. Distribute of compensation to fishermen. Participation in consultation processes.
GOVERNANCE AND INSTITUTIONAL STRUCTURE			
Structure	Programme Manager from the North Norfolk District Council (NNDC). The FLAG Committee made up of members from organisations with voting rights	Chief Executive Officer and staff carry out research, enforcement and community engagement. Committee members decide work programme.	Chairman, a vice chairman, treasurer and a secretary Membership of over 30 members.
Accountability	The North Norfolk District Council (NNDC) responsible for NNFLAG. The MMO responsible for FLAG delivery nationally.	Report to DEFRA and the MMO. The Association of IFCAs ensures IFCAs work towards the national vision.	Not currently members of any higher level organisation representing fishermen.
Election of representatives	Organisations including fishermen's organisations asked to join the committee. Government body representatives were appointed.	Committee vacancies advertised online. Interview process by MMO and IFCA every 4 years	Nominations and elections for the Chairman and Vice chairman take place annually.
Meetings	Monthly to quarterly	Quarterly	Annual General Meeting & ad-hoc meetings
Decision-making	Project board including committee members decide aims of the FLAG. Committee members vote on project applications at monthly meetings. Final decision depends on approval by MMO	The IFCA work programme developed by its staff, responding to national objectives. Agreed on with its Committee members.	Majority voting in meetings. Each member has a vote. Chairman has casting vote for accepting new members or terminating membership.
RESOURCES and SCALE			
Boundary	Within North Norfolk from the coastline between Thornham and Caister-on-sea	Jurisdiction is out to 6 nm from Hall Sand Fort in Lincolnshire to Felixstowe in Suffolk	Working fishermen in the North Norfolk fishing area (defined at discretion of the members of the NNFS)
Funded by	European Commission; EFF (2007-2013)	Local authorities of Suffolk, Norfolk, Lincolnshire and core national funds until 2015.	Membership funding (£50 annual fee). And 5% of total compensation payments negotiated for membership
Created in	2011	2010. Replaced the Sea Fisheries Committees	Early 1960s (exact date unknown)
Future	Ends in 2015. May continue depending on EMFF	Reduction in funding post 2015	As long as members continue

4.6 Conclusion

The Cromer crab fishery has undergone a great number of changes with good and bad times over the last four decades. Looking at change over a long period of time provides some perspective over the scale of change, necessary to understand resilience to change. There is currently significant scientific uncertainty in stock assessments for the Norfolk crab fishery, which has not been a priority for research over the last few decades. While fishermen are accustomed to natural variability in catches from year to year, the increased and displaced pressure from other parts of the UK on Norfolk crab fisheries due changes in fisheries policy is a source of concern. Changes in licensing and limits placed on other fisheries have had an impact on the beach boat sector. Fishermen used to be able to switch to other fisheries or take up other employment if necessary to sustain their income when crabs could not be caught. However, as fisheries legislation became increasingly restrictive, this flexibility was lost, and further compounded due to the lack of seasonal employment. During the 1980-90s, fishermen also lost control over their income as the fishery developed and became more industrial, with prices starting to be set by the market, by factories and merchants, rather than by the fishermen. The interdependency or overlapping nature of fisheries and related sectors has meant that policies intended to regulate or manage one part of the fishing industry have often had much wider impacts.

The scope of European and UK marine governance has now been expanded with fishermen now having to compete for space with MCZs and offshore wind energy developments. Many of the objectives which shape the work of institutions such as the IFCA, tasked with protecting the marine environment and managing fisheries in the East of England, originate from European or international governance processes. As Symes and Phillipson (2009) pointed out, this “has meant that social objectives have tended to fall between the gaps of what is now a complex multi-level governance framework” (p.1). The establishment of a community partnership, the North Norfolk FLAG in 2011 has offered a way help balance social, economic and environmental objectives at a local level.

As the fishing industry has declined, the number of people directly dependent on fishing in coastal towns and villages of North Norfolk is less significant than in the past, compared with other activities. The nature of fishing has changed and the relationships within the fishery and to place are likely to have changed within the fishery and across the region. In the next chapter, I will explore how fishermen have responded to the changes discussed in this chapter and to what extent they can be considered ‘resilient’.

Chapter 5: Responses to change and livelihood adaptation in the Cromer crab beach fishery

5.1 Introduction

In order to remain profitable crab fishermen have adapted their ways of working particularly in response to the pressures discussed in Chapter Four. In this chapter, using the narratives of current or retired fishermen, I explore fishermen's experiences of change and analyse the livelihood responses they have adopted in order to continue working in this fishery. I categorise these responses into five distinct but often interlinked strategies: downsizing, going bigger, adding value, mobility and working part-time (Section 5.2). That these strategies have enabled many fishermen to remain in business over the years may demonstrate their individual and social resilience as a group of fishermen in the face of place related changes. My focus in this chapter is on those who have developed responses to remain in the fishery rather than those who have left the industry (explored by others including: Johnsen and Vik, 2013; Daw *et al.*, 2012). As Section 5.3 outlines, the selection of particular strategies are influenced by factors including financial risk, age, lifecourse and household resources. Finally, I discuss the changing nature of relationships in the fishing community as a result of livelihood adaptation (5.4-5.5).

5.1.1 Experiences of change on the beach

When talking about change, several fishermen showed me photos and talked of how the beach used to be when traditional wooden boats were used.

That's down the gangway how it was in 1949-1950. That's where there is a cafe now. That's exactly the same. A lot more boats. And these baskets. All the crabs were in there. There would be 80 in them. That's one of the Harrisons [one of the fishing families which no longer active]. But that is how it has changed, no trailers, no tractors. So [back then] they would pull it in. You can see them, they weren't very big.[...].



The Beach & Pier, Cromer

1960s



Alamy DXETNX

2011

Figure 5.1 Photo from 1960s and from 2011 showing the promenade, and the gangway where the boats are kept. Source: a) Simplon Postcards. The passenger ship website. B) Roy Childs / Alamy Stock Photo

As Alan, 65, explained, relatively small wooden boats were used and manoeuvred by hand into the water. By the 60s, larger and heavier double ended crab boats, weighing about 3 tonnes would be moved into the water with tractors. Today the same practices can be observed on the beach, every morning, but with smaller fibreglass boats, called skiffs each with their own old rusty tractor⁵³. As Alan notes though, many buildings, such as the Lighthouse Café, or the pier are still there. Despite changes to the type of boats used, the number on Cromer beach is still roughly the same (see Chapter Four and Figure 5.1). Although Alan says ‘That’s exactly the same’, he also explains that a number of fundamental changes have occurred in how beach fishermen work. I observed similar responses in other interviews indicating how fishermen may downplay the changes that have occurred. This may indicate responses to change have been accepted or this may also be a mechanism for coping with change. Although there is no apparent change in the fishery in terms of its general appearance, fundamental changes have occurred in how fishermen work, in terms of technical improvement and relational aspects of working as fisherman.

⁵³ Old tractors are used because they are more resistant to the salt water than modern tractors.

5.2. Livelihood strategies for responding to change

5.2.1 'Downsizing'

The most notable change expressed in interviews with fishermen was the reduction in size of fishing operations, from two or three men wooden boats to the single man fibreglass skiff. This trend towards 'plastic' boats which fishermen expressed as 'downsizing' to smaller but faster boats, started first in Sheringham. When talking to fishermen about this change, it was apparent that this move was motivated by several factors. Firstly, it was a cost saving strategy allowing crew and boats maintenance costs to be reduced. This also afforded fishermen greater autonomy, freeing them from the worry of providing an income for someone else. One of the first to go single-handed at Sheringham in the late 1980s, Will, 68, explained this further:

See because the crabs were very slow and [being single-handed], what you got was yours and you then didn't have to worry about no-one being on holiday, no-one being sick. If you didn't want to go you didn't go. Whereas if you had, say you and me were together, you might perhaps want to go and I didn't because I thought it was too rough for us. That's when the little bit of arguing started then [...]

Joe, now over 70, was one of the first Cromer fishermen to become 'single-handed'. He explained how the trend that had started in Sheringham caught on in Cromer:

We had 3-4 years that weren't good at all. At Sheringham, before us, they went in for the single-handed boat and made a success of it. Having said that, they were an older race of men and it seemed as if there were more retiring there than in Cromer. There were less and less young men at Sheringham.

The fact that Sheringham fishermen were ageing combined with a shortage of young men to help out or take over fishing businesses seems to explain – according to Joe- the transition to single-handed skiffs, which allowed fishermen to work more independently. The trend may have also started at Sheringham because wooden boats would tend to crack as the pebbles heated up on hot days, incurring increasing maintenance costs compared to Cromer which has a sandy beach. Will said: "The crab boats were getting very difficult to [...] repair cos they were all wood, and [...] then we turned to fibreglass and then we all decided we could work them single-handed."

The cost of paying someone was often also part of this decision. As Sheringham fisherman, Bill explained:

Getting someone on board to help you and get up at 2-3 am for let's face it now, £300 a week⁵⁴. You're lucky if you get someone reliable. So that's why people decided to go

⁵⁴ A typical rate for a day of work working as a deckhand on a beach boat is £50-£60 per day.

single-handed here. They could go every other day, haul the gear one day, 200 pots, and the next day process.

Cromer fishermen started to see that the strategy of working alone could benefit them also. Joe recounted how a fellow fisherman was having a fibre glass boat built and his decision to do the same:

I went with him. And I said 'I'll have one as well'. So I told the boy who went with me what I was doing. He went and got a job at some company.... anyhow..... I know that took us a year to get used to it. A few teething problems but, I would go as far as saying that in them years, I was better off than any other 12 years crabbing without a doubt.

Deciding to get a smaller boat was often triggered by crew retiring, finding another job, or dying. This was the case for Jim who used to fish with a family member who passed away. He carried on working the wooden boat for some years but as he explained:

I couldn't get the crew. The cost was too high and I could not make ends meet. Eventually I had to go single-handed which other boats had already done. [...] I wasn't exactly a trail blazer. It had already been done.

This strategy can be interpreted as a coping or survival strategy. As Joe expressed: 'That's been a good thing. A saviour of the beach boats, single-handed.' Between 2000 and 2006, all but one of the Cromer boats changed to fibreglass so that they could fish on their own (Figure 5.2). Today, there is just one wooden boat builder and restorer left in North Norfolk⁵⁵.

⁵⁵ Stiffkey Marine & George Hewitt boat builders. The last wooden crab boat, Valerie Teresa, was built in 1989.

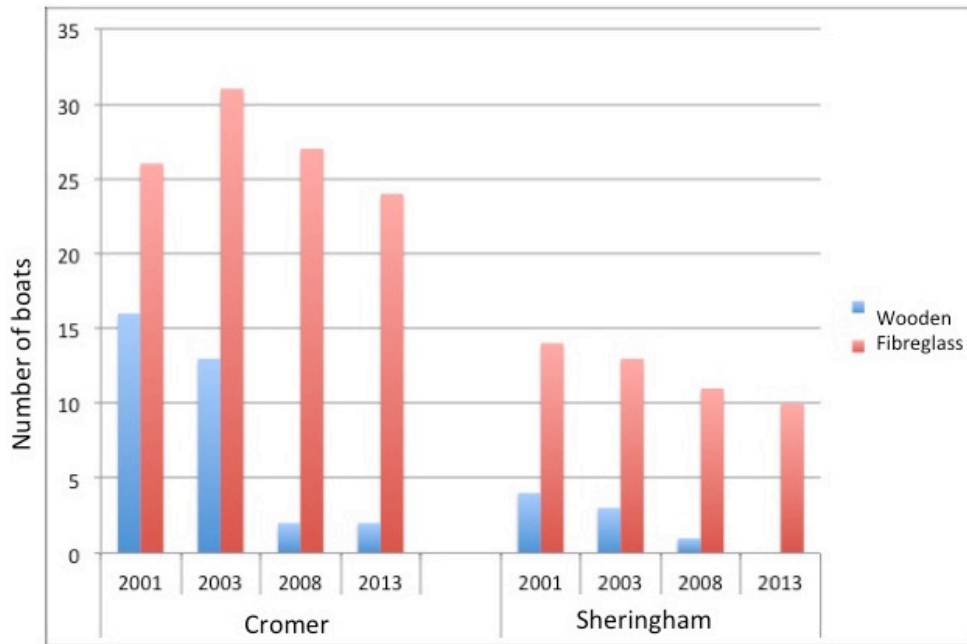


Figure 5.2: Number of wooden and fibreglass boats registered in Cromer and Sheringham between 2001 and 2013. Data source: MMO vessel registrations, 2014. NB: This is the number of registered boats and is different to the number of active boats. Boats may also be registered in Cromer but operate from another beach in the area. This may also be different to the data presented in Figure 4.3 which is based on monthly catch returns from the Eastern IFCA.

There is an exception on Cromer beach where a wooden crab boat was adjusted for regular single-handed use in 2006. Alan, explained how this was possible:

I put another hauler at the front, that's a slave hauler. That hauls on its own and I work the boat a bit different. The hardest bit was thinking how to get the boat up on my own. With others that was easy. But I got over that one. On the trailer I had some wheels that pull out and I pull the boat up on to the trailer. Since then got an electric winch with a remote control so I just press the button and that pulls it on

Although this shows that it is in theory still possible to use wooden crab boats, the practicality and expense of working these on their own presents a challenge. The main reason that this fisherman has chosen to keep his wooden boat rather than to buy a new one is the expense that this would present relatively late in his career. Instead, he has reduced how much he fishes, and maximises revenue for it by selling it in his own shop (See also 5.2.3).

Working alone at sea increases the level of physical risk for the fisherman. Several incidents have occurred over the last few years. One fisherman explained how he went overboard in the summer and was rescued by other fishermen as he clung to a buoy. Others told stories of themselves or other beach fishermen hurting themselves getting their foot caught in a rope, or a finger caught in the pot hauler, being pinned down by a hand tow or getting being hit by fishing gear anchor. Tom

exclaimed: 'In some ways they should ban going on your own, but financially it is the only way we can do the job!'

Several fundamental changes have occurred in the beach fishery, which are primarily seen as a cost saving strategies. Beach boats are now smaller and made of fibreglass rather than wooden which requires less maintenance. As these boats do not require crew, the total number of fishermen working on the beach has at least halved. One of the consequences is increased physical risk.

5.2.2 Going bigger

An alternative strategy to downsizing was to invest in a larger boat. As Joe put it: 'I think it was a case of 20-30 years ago that you either went smaller or bigger.' Several Cromer fishermen invested in larger boats and operated from Wells or Blakeney from where they could fish further offshore and exploit new fishing grounds. As I discussed in Chapter Four, Wells boats started targeting crab in the 1980s. However, working a bigger boat had some disadvantages. Several of the beach fishermen started commuting daily to Wells or Blakeney. The distance is between 15 and 20 miles but can take over an hour each way depending on traffic which proved an added stress especially as some were also running another business in and around Cromer at the same time. As Blakeney and Wells are tidal, boats can only go out and come back at high tide. This means that boats stay out for 12 hours at a time and that working times differ each day making a regular routine impossible. Finally, larger boats have higher overhead costs in terms of fuel and crew, resulting in an intensification of fishing effort through investing in more gear, and working longer. Expanding can be a risky strategy involving increased stress as Rosemary, a small processor, told me:

I've seen so many people go downhill because they've gone too big and you've got that whole worry of being able to keep them going. At the end of the day there's more profit in a small business than there'll ever be in a big business. If you keep it small you can keep your product good. [One of my relatives] brought a few women in to dress and I just find it ridiculous cos you're working your socks off probably for not any more. Not that we discuss money, we don't, but you can see.

She suggests that smaller businesses may be more resilient as they are less exposed to financial risk. She also told me that harbour boats from Wells have been catching less in recent years, compared to the high catches of the 1990s:

They're spending more on bait and fuel than what they're bringing in. Years ago they'd think nothing of 100 odd boxes at a time but you don't hear them numbers now. [I know someone who] buys in from Wells or from Brancaster. And he's had problems this year. He's done better with the beach boats off Cromer.

Most of the crab fishermen who bought larger boats working from a harbour returned to smaller beach boats. One exception is a fisherman who managed to go bigger and still work from the beach using a catamaran. The investment required for this size of boat was much larger than for a skiff. While a skiff would cost £3000-£6000 pounds, a catamaran is worth £100,000. This fisherman, employs two crew, with one all year around and has a shop in Cromer run by his wife with three or four employees in the shop and four crab dressers who work March till December, sometimes seven days a week.

In contrast to the 'retrenchment' strategy of downsizing fishing vessel, and reducing costs, the strategy of 'going bigger' involves 'expansion'. It requires financial investment, longer working hours, and taking a risk that the future earnings of the fishing business will improve over time. Working on larger boats is also physically more demanding.

5.2.3 Adding value

The flexibility within inshore fisheries to target other species depending on their availability – a common livelihood response of diversifying catch - has been reduced through more restrictive management policies (Chapter Four). Another form of income and activity diversification within fishing is to add value through processing. Following the low prices set by the Cromer Crab factory in the late 1980s-1990s, beach fishermen starting to process and sell their own catch, rather than selling it live to the factory which had until then provided an easy outlet for crab (see Chapter Four). Brian recalled:

More and more we were being told 'you can't go to sea'. So we went over to processing ourselves. Eventually that got bigger and we stopped taking to the crab factory completely. So when the crab factory shut down it didn't make any difference to us at all.

Processing would have always been common to some extent, in traditional fishing families where female family members would have carried out this task at home. Kitty Lee, who could average 100 dressed crabs in three hours gives an account of life in a fishing family in Stibbons *et al.*, (1983). Processing is much more common particularly as the market for live crab has declined. Nick sells his catch live, sometimes struggling to find customers, explained:

On an average run you get four crabs from a pot and they would weigh about 1 kg. On average you get £1 for a kilo, say 25p each. That's okay if you are getting 10 to boxes a day. If you get 30 kg in a box then that's 300 quid a day but with how catches have gone down, you just can't do it. The prices aren't very good. I'm alright now because I'm getting on and I don't have a very big mortgage.

Today, I estimate that at least half of the beach boats on Cromer beach have invested in processing and marketing their own catch in order to maximise profit, either themselves or with the help of family or friends. Processing at home often takes place in a converted shed or garage, which needs to be approved by the Food Safety Authority. Women in particular are paid by fishermen to dress pre-boiled crabs for them, often from their homes. From the kitchen window of a place I stayed on occasions in Cromer, I could, on most mornings, see a fisherman drive up to a garage door to pick up the finished crabs, which had been dropped off boiled. This indicates the informal nature of processing and of this industry as a whole, the value of which may be grossly underestimated. Fishermen then sell directly to the consumer through their own shops, at weekly markets in Norfolk or deliver to hotels and restaurants and wholesalers based in Pakefield, Lowestoft, Great Yarmouth or King's Lynn. They are then further distributed to Norwich market, parts of Norfolk and coastal Suffolk and further across England.

Quality over quantity

Adding value through processing also has implications for how fishermen fish, in marked contrast to the strategy of selling to the factory. As Carl in his sixties explained:

The difference when you are fishing the beach is that you are fishing for quality not quantity. [...] The way we fish is sustainable. We also want quality because you are processing. You can go to Wells and buy a load of crabs off them which aren't no good for processing. [...] We haul a pot with 10 crabs in it and we might just keep one. Anyone who hasn't got your experience will think 'Why is he throwing them back?'. It's cos you know they aren't going to cook well. Because of our experience we know a good crab and a crab that's got nothing in it.

I witnessed how selective fishermen could be with their catch on a fishing trip I went on early in February 2014. A large part of the catch is thrown back either for being undersize or not high quality enough. As Brian told me "It's far more profitable to catch your own. Because you always pick the best crabs out when you're catching them yourself". Processors I spoke to confirmed this, saying the best fishermen brought them only 'good' crabs. This also relied on a good relationship between the fisherman and their supplier (see Section 5.4). When I asked more about the strategy of prioritising quality over quantity, Carl specified:

Because your catches are less. Whichever form of fishing you look at the stocks are decreasing. Crab particularly have been ignored for years. When I worked offshore at Wells, I fished the Race bank and you couldn't believe what we were catching. Absolutely ridiculous amounts. I think one year I landed a quarter of a million crab. Just one boat. That's phenomenal isn't it?

Working from the beach with 50 pots, he said in one year he had caught over 12,145kg of crab, equivalent to almost 50,000 crabs⁵⁶. When I asked what his typical catch was today, he responded: “Oh a lot less than that.... Because you’re going for quality. In them days you went for quantity for the factory. You didn’t care too much...”

This emphasises the point that although now there are fewer crabs to catch, fishermen can add value to their catch through processing, catching less for the same or a better income. More selective fishing prioritising quality over quantity also has potential implications for the sustainability of the resource.

Time is money

Processing requires not only financial investment particularly since health and safety regulations have become stricter but also a time commitment. Some fishermen have chosen not to process their catch, preferring to sell it live or boiled as a whole crab. Processing is less common with fishermen who have another source of income or have other commitments such as taking care of family. The decision not to process was often expressed as a matter of personal preference. For instance, Bill a part-time fisherman from Sheringham explained:

All the health and hygiene, it’s just got out of proportion.... I just don’t have the time. I’d rather go two days and earn 100 quid each day rather than go one day and process the next for £250. It’s a little bit behind but that is my choice.

Similarly, another fisherman Nick, explained his choice of not processing:

I have done it before. Stood there cooking and dressing crabs. My neck and shoulders get that tight. So I said to [my wife], ‘I’m not doing this’. Years ago it was alright. We had little cooker outside and you could dress in the kitchen. Now you’ve got to have [special labels with dates], and a refrigerated van. So I just come back, sell them live, finished.

In Nick’s case, the choice not to process is motivated by perceptions of what a fisherman should do, which is traded-off for higher potential income.

If I wanted to cook crabs and dress things, I would have been a chef wouldn't I? Being a fisherman, to me, is go to haul your pots, get your catch, come ashore, land them, and then get rid of them. When I first started there was nothing like that. The last 20 years, that's gone mad people cooking and dressing. No, that's not for me.

⁵⁶ If each crab weighs an average of 250g

He explained that spending time processing was not compatible with family life:

When the girls were young we just couldn't do it. I would be going to sea in the morning and if [my wife] was working a late shift or something I would look after [the kids]. Cooking their tea, and being househusband. That would work quite well, especially in the winter time when I wasn't doing so much. I used to bring a pot and I could do it on the kitchen table while they were sleeping.

Making a living without processing has become increasingly difficult. Diversifying livelihood activities to include processing has been a response to low prices offered for unprocessed crab, low catches from which to make a living, and consumer demand for a ready to eat product. However, although income can be enhanced through this strategy, the financial and temporal investment necessary for processing limits which fishermen follow this strategy.

5.2.4 Mobility – safety in numbers

I had assumed when I started this research that fishermen who worked from Cromer would also live there. However, this was only true in only a minority of cases. Many commute to Cromer, some as far as 20 miles away, from inland or further down the coast and always have done. One reason is the cost of housing and another is that some fishermen have had to move from where they used to fish. Many of the Cromer fishermen have previously worked from at least one other place, typically as crew Lowestoft or Great Yarmouth where work declined or in Wells as skippers. Some previously worked from surrounding beaches, where working conditions became difficult, due to erosion or due to the loss of the critical number of fishermen necessary to get boats on and off the beach. This has resulted in a consolidation of fishermen on Cromer beach which is considered the most practical beach to fish from. Cromer is one of the few beaches where it is possible to go at any time of day regardless of tides. Despite this, Cromer fishermen tend to go out at first light every day which allows a regular routine and more time to be spent on processing and delivering. Bob described the trend like this:

I think that's more to do with beach erosion at West Runton, and the fact there's hardly any fishermen at [places like] Sheringham. It seems they've all virtually gathered together [for] a variety of reasons. For their safety they feel... Safety in a pack as such. Of course at East Runton, that beach did disappear. I think their hope [was that] the beach [would be] built up. But, like Nick and the other sea goers have now just sort of settled in the area.



Figure 5.3 Photos of different landing sites: Wells, Cromer, Sheringham and Weybourne. From top left to bottom right: beach launched boat from Cromer, beach boat from steeper beach at Weybourne, from slipway in Sheringham, and from the harbour of Wells

Over the last decade or more, the sand from East Runton beach had been washed away. The move to Cromer had been facilitated by local government in 2006 when work needed to be carried out on the beach due to erosion. Nick said:

The chap from the council [...], he said 'Would you mind going to Cromer for a few months while we work on the gangway?' So I said 'No I don't mind, not really'. And he had words down at Cromer and said 'they don't mind' so, we moved there. And then never come back.

Robert, 74 who used to fish from East Runton explained the practical advantages of working from Cromer:

It's so much easier [at Cromer]. You've got all that prom[enade]. You can pull up to the wall and load your stuff. [...] But at Runton, there would be five or six of us down there and we had to pull all the boats up the gangway. You would have to wait for the others and leave your car at the top. That was just a nightmare. That's the best thing I've ever done, going to Cromer.

Clearly the fishermen were very dependent on each other when working from East Runton. Working from Cromer allowed them to work more independently. Similarly, a couple of Sheringham

fishermen work on the beach at Cromer. When I asked Rick why he did not work from Sheringham anymore he responded 'Well there's no place like home'. But, he explained:

You just can't do it here. 90% of the year there are lumps of stones all over [the slipway]. [...] And when you get to shore you have to carry [every] bloody thing to the top of the gangway: your anchors, your tows, your buoys and then.... if you catch crabs you got to walk up with them. I would say it's probably the worst place to go to sea from in Britain.

As fishermen have become single-handed, they work independently but also depend on regular help from others. Also as Bob alluded, a greater number of fishermen improves safety at sea.

Cost was another factor in explaining where fishermen work from. For instance, Sheringham despite some of the inconveniences mentioned, an inspector for the Eastern IFCA told me: "In Sheringham they are still old fashioned they use a winch and you don't need a tractor and trailer. That's a cheaper way of fishing." This was clearly a factor in Bill's decision of whether to move or not: "A trailer is £2000, a tractor is £3000 so that's already £5000 expenditure, which is a lot of money. And if I were going to Cromer and then I'd be fishing back here. On my own doorstep you see."

Generally, fishermen do not share tractors or purchase these collectively. Furthermore, as Bill highlights where a boat is launched from does not change where fishermen lay out their pots at sea. Although some fishermen have their favourite spots based on local knowledge, where they fish will change throughout the season. Early on crabs tend to be concentrated around Overstrand whereas later in the year, fishermen will be further west, opposite Sheringham.

Fishermen I interviewed who work from Cley, Overstrand and Sheringham expressed preference for not working in Cromer which could not be explained only by cost or practicality. Decisions relating to which beach to fish from are also revealing of place identity associated with fishing (explored further in 5.3.2). Generally however, mobility is based on financial cost, fishing opportunities, being able to work with others on the beach, and the ease and practicality of working on a certain beach.

5.2.5 Part-time fishing: diversification out of fishing, retrenchment or slow expansion?

Fishing part-time is used by some fishermen as a form of diversification or retrenchment to reduce risk and improve income stability. In some cases, part-time fishermen also discussed this strategy as a way to transition into full-time fishing. Before going further, the way in which part-time fishing is understood deserves some clarification. The MMO currently considers that a part-time fisherman is

someone with an income from commercial fishing (i.e. not a recreational fisherman⁵⁷) but who has another source of income unrelated to fishing. This can be understood as ‘multiple job holding’, a term used by Morgan (2013) in his work on diversification. Fishermen use the term ‘part-time fisherman’ which is understood by fishermen in much the same way as the MMO definition. Therefore, a fisherman who goes to sea two to three days per week and processes, delivers and sells crab is not referred to as a part-time fisherman if that is his sole source of income. Nor is a fisherman who takes up seasonal employment for instance on a building site when catches are poor or when the crab season has finished. Similarly, an older fisherman who still fishes one to a few days a week, who supplements his pension with income from fishing, would be referred to as ‘semi-retired’ rather than a part-timer. In Sheringham and other beaches such as Sea Palling, the majority of current boats are referred to as part-time, in that they have another job other than fishing.

There are a relatively equal number of part-time and full-time fishermen in the crab fishery overall. However, some beaches or harbours have higher proportions of full-time or part-time fishermen (Table 5.1). Cromer, Overstrand, Weybourne and Wells have the highest proportion of full-time fishermen whereas areas around Great Yarmouth and Sea Palling have the highest proportion of part-time fishermen along with West Runton, Sheringham and Cley.

Table 5.1 Part-time and Full-time fishermen in 2013. Data provided by the Eastern IFCA by email June 2014

Full-time			Part-time		
Launching site	Fishermen	Boats	Launching site	Fishermen	Boats
Wells	21	10	Great Yarmouth, Gorleston, Caister and Hemsby	30	16
Cromer	18	15	Sea Palling and Cart Gap	8	4
Weybourne	5	2	West Runton	4	2
Great Yarmouth, Gorleston, Caister and Hemsby	4	2	Brancaster	4	2
Brancaster	4	2	Wells	4	2
Overstrand	3	2	Cley-next-the-Sea	3	2
East Runton	2	2	Sheringham	3	2
Sea Palling and Cart Gap	1	1	Mundesley	2	2
Sheringham	1	1	East Runton	2	1
West Runton	0	0	Cromer	2	1
Cley-next-the-Sea	0	0	Overstrand	0	0
Mundesley	0	0	Weybourne	0	0
Total	59	37	Total	62	34

⁵⁷ A sea angler, or hobby fishing.

Will explained why some fishermen work part-time in terms of ensuring income stability:

The people what are going [from Sheringham] have got another job for two reasons. They've got a mortgage and you can't rely on fishing now as a family with a house with a mortgage round your neck. The three of them were full time before. [A few years ago], the crabs were really slow and the wind farms were starting to come. So, they arranged [to go and work] for them. [At Sheringham] we've got one boat, he'll go away for a fortnight [working for a windfarm], but he'll fish here when he's at home for a fortnight.

As is clear in the above quote, the decision to be part-time was motivated by financial and family commitments. A part-time fisherman I spoke to explained that he wanted to work full time as a fisherman but that in order to make the transition to be able to work full-time he needed to invest in processing first. However, as I explained in 5.2.3, being part-time often means having less time to spend dressing crab and finding the best customers. A part-time fisherman may spend the same number of hours at sea as a full-time fisherman, but may earn considerably less money because he does not have the facilities or time to add value. Leo, who is part-time said:

I've been just selling the stuff live but, there isn't any money really out of that. You've gotta be processing to make a living unless you're working on a massive scale, which most [beach] boats don't. If you can process a hundred crabs a day, you can make a living out it. That's what you've gotta aim for.

As the two quotes show 'part-time fishing' is a strategy motivated by different goals. Some such as Leo aim to gradually become full-time, saving-up the money necessary to expand their business. For others who were once full-time, part-time fishing is a risk avoidance strategy where another job gives a household greater financial security and stability. Part-time fishing is often put forward in the literature and policy makers as a livelihood strategy which allows income to be diversified out of fishing, risk to be reduced, and less pressure to be put on fish stock allowing more sustainable and resilient livelihoods to be achieved. However as Morgan (2013) found in the English Channel, relatively few fishermen have responded to challenges they face by taking up paid work outside of fishing. As I also found, part-time fishing was often spoken about in a rather derogatory tone by full-time fishermen indicating the existence of tensions. Aversion towards 'part-timers' was clearly present as illustrated by this conversation I had with Carl:

Carl: At Sea Palling, there's only one real fisherman there now. They are part-timers because they work on the wind farms. I don't class those people as fishermen because they aren't fishermen. They aren't making their living from the sea. I shouldn't have to compete with people like that.

Me: Well I suppose if they are part-timers they are not taking as much?

Carl: Yes they are! They are [occupying] grounds I can't fish. Therefore, they are impacting me. I am a commercial fisherman and get my living from the sea. Say you ran

a grocery store and Joe Bloggs who works in an office a few days a week sets up a stall just outside your shop. How would you feel about that?

Me: But perhaps it's better for the stocks if fishermen are part-time....

Carl: Well that's admitting defeat then isn't it? If you are saying our stocks can only stand part-timers that shows that you've made a right mess of it. If stuff was managed properly fishermen would be able to make a sustainable living.

As Carl sees it, fishing part-time is not a strategy that helps reduce pressure on stocks but creates injustice by allowing those who are not fully invested in working as a fisherman access to the fishery. This has implications for the implementation of conservation measures. This has long been a contentious issue between fishermen and membership to the North Norfolk's fishermen's society was previously limited to full-time fishermen. This has changed in recent years. Leo who is one of its part-time members considered that this was fair:

There's plenty of people that are in the [society] that have got other jobs whether that's in the winter time or in the summer time. It's hard for everyone at the end of the day. You aren't gunna sit at home and do nothing cos you're a fisherman. Sorry but I've got a mortgage to pay. I'm not gunna sit at home and say 'Well I'm a fisherman, I can't do anything else'.

Overall, there is still some reluctance in the fishing community to treat part-time fishermen as 'fellow' fishermen. For instance, I observed a discussion between fishermen at a FLAG a meeting where grant applications for a pot hauler and for a processing facility had been made. One of the applicants was reportedly a 'plasterer' but was keen to work full-time fishing. Several fishermen on the committee expressed the view that a fisherman should work his way up and not receive 'hand-outs'. This seemed at odds with one of the core aims of the FLAG which was to help promote new entrants into the fishery. As I show in Chapter Six, fishing part-time can be a strategy to become a fisherman through a step by step expansion, as well as a risk reduction strategy through diversification. How resilient these fishermen are (if resilience is being able to continue making a living in the long-term) is unknown. Similarly, whether part-time fishermen are likely to go into (or back into) full time fishing is unknown, but is an important question to consider when thinking about the future of this fishery.

In sum, five key strategies have been used by beach fishermen in order to maintain their livelihoods. Next, I discuss the themes which arose concerning how fishermen make choices concerning livelihood decisions. Although key livelihood strategies have been discussed separately, in reality they are often related and are combined with each other.

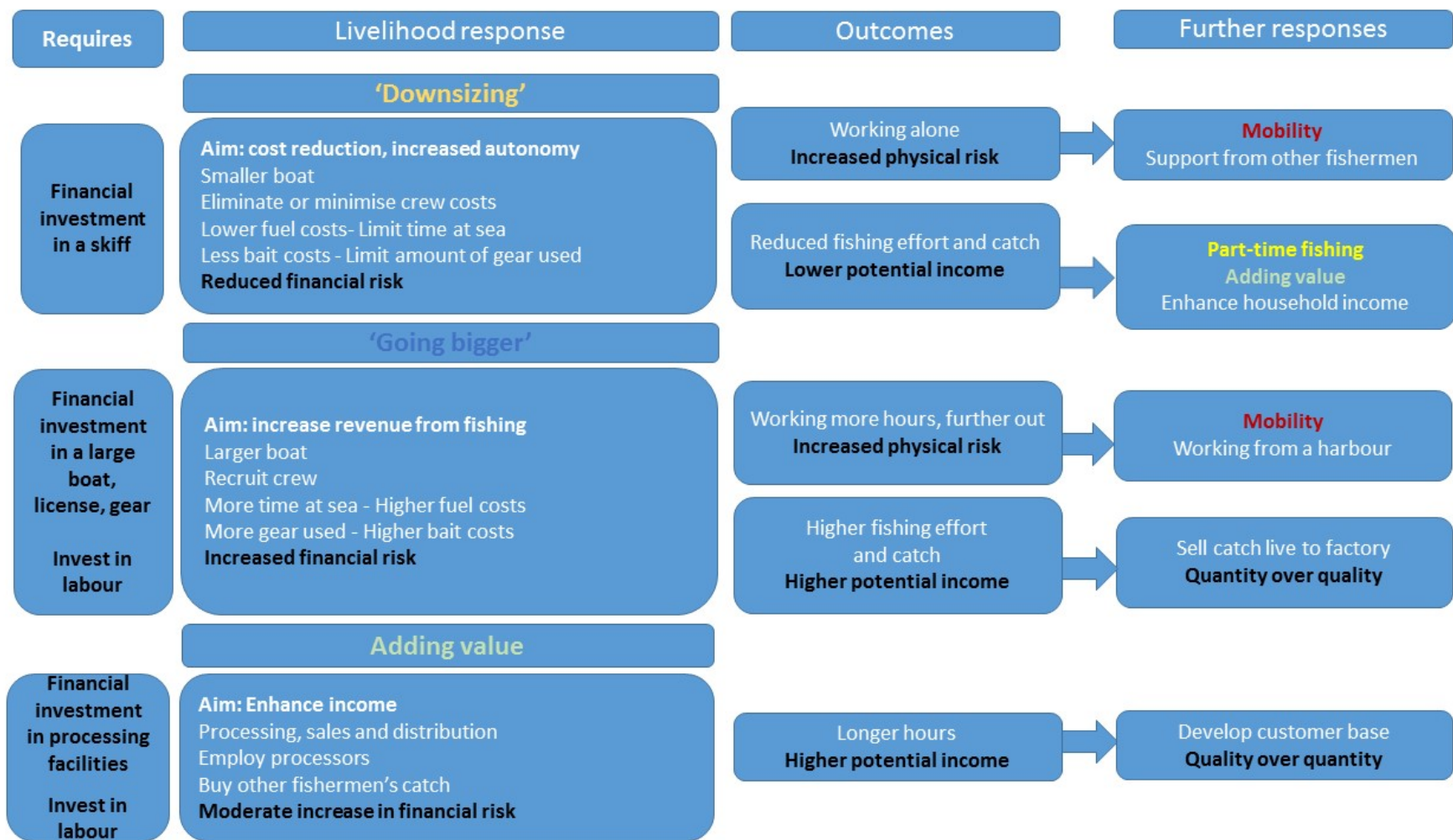


Figure 5.4 Different livelihood strategies used by fishermen and their implications. Strategies vary by level of risk used to increase potential return through investment in time and money.

5.3 Investment of resources, risk and trade-offs in livelihood choice

Expansion or downsizing are the two strategies which most fundamentally determine the nature of the fishing business and influences which other strategies are taken. Diversification into processing activities and mobility between fishing locations have been in part due to the choice to downsize or expand. Part-time fishing is a strategy which serves both expansion, retrenchment and diversification of income outside of fishing. In some cases, mobility has been necessary in order to enable either expansion (e.g. moving to a harbour) or retrenchment (e.g. moving to a more convenient place for working single-handed boats). Each of these strategies depends on the level of risk a fisherman prepared to take and investment and able to make. Contrary to fisheries economic theories which consider fishermen as individual rational decision-makers, the livelihoods literature emphasises (e.g. Ellis, 1998, see Chapter Two) decisions around adapting to change are likely to be at the household level. A fisherman's decision therefore also depends on his household's financial and social resources, willingness to invest in the fishing business financially and in terms of time, and willingness to accept the perceived financial and physical risk.

Figure 5.4 shows different stages where strategic decisions and investment are involved in working a small skiff or a larger crab boat and the related decisions of employing others to expand the business and diversify income into processing activities. As noted in other studies, the most common livelihood response often involves the reallocation of fishing effort to other species or geographical fishing areas (Marschke and Berkes, 2006; Morgan, 2013). This is not surprising since it allows the fisherman to control expenditure, reduce financial risk which may often be complemented by activities such as processing or selling products to higher end retailers. Modifying effort level through number of hours worked or amount of gear used is more easily reversible and therefore less risky. On the other hand, having a larger boat, means employing more crew, working longer hours. This can also result in catching larger quantities which rather than investing processing or marketing a smaller catch (see Section 5.2.3). Smaller fishing businesses often keep employment costs low by employing family members while larger businesses tend to need to more formally recruit outside of their social circle, which can present an additional financial risk. These decisions, which are based on the level of investment required in terms of money and time, depends on a fisherman's personal circumstances which are influenced by life course, commitment to fishing and by the level of social support offered through relationships with family members or close friends. In the next section, I discuss how these circumstances influence responses at the individual and household level.

5.3.1 Life course and livelihood responses to change

Age, lifecourse and level of social support, usually from family, were crucial to livelihood strategy choice. Young or aspiring fishermen were motivated to increasing their earnings by investing their time and as much as they could financially in fishing. Older fishermen from the age of 50 or more tended to slowing down and investing less financially, having reached a satisfactory level of financial security. It is nevertheless common to see beach fishermen over 65 continuing to fish, albeit often at a reduced level of activity. On the other hand, harbour fishermen tend to stop earlier due to the longer hours and more physical nature of the work. Brian who crews on a harbour boat in Blakeney explained:

This year's [we've been going] been like once a week. The reasons for that are twofold really. Partly because Gareth's now 60 and he's finding it a lot harder to do the hours. [This year, there's been] an awful lot of crabs so he literally doesn't need to go to sea"

In addition to scaling down activity at sea, some older fishermen had decided to stop processing their catch as they no longer needed to maximise income. Paradoxically, while young fishermen may struggle to access sufficient financial capital to expand, older fishermen nearing the end of their career may be financially able to expand but no longer have the physical strength or will to do so. Age has an influence on how fishermen work and what strategies they use and is also related to whether fishermen are single or not, have children or other dependents, or own a home. There was an age beyond which expansion including buying a larger boat, or becoming a full-time fisherman was more or less worth taking. For example, Bill who is 48, who cares for a family member, and was considering whether to invest in becoming a full-time fisherman explained: "I have to make a decision. If I was younger, I would go straight away to Cromer. But my personal circumstances mean that I think I will be hanging around here for a year unless something comes up."

In this case, the time Bill can spend fishing is limited due to other commitments mean that he cannot currently work full-time as a fisherman. He implies that given his age, he is less likely to invest the funds necessary to work from Cromer beach. Similarly, Leo, who is ten years younger, explained how he has not been able to commit to fishing full-time due to financial and household responsibilities. Obtaining a mortgage has become increasingly difficult for fishermen due to being self-employed and having irregular revenue.

We've been busy moving houses and stuff in the last few years. It's to do with time and commitment. Especially with [my other job] you know I couldn't commit to anything

[more] with mortgages and bits and pieces. I'm forty this year, so I need to make a decision soon.

The two quotes above from part-time fishermen. As Morgan (2013) found in the English Channel, having another job other than fishing is often motivated by the need to achieve a stable income and, or being limited by the time available to spend fishing. The nature of working hours necessary for fishing can also often be unsociable. One of Cromer fisherman, Tom, said: "I don't think most women would put up with what we do. I'm here [in the shed] 7 days a week if I'm not at sea." Support from family and particularly wives were frequently mentioned by fishermen as crucial to enable them to do their job. Rosemary also emphasised this point: "I tell you something if [...] my two brothers if they didn't have the wives they have, they wouldn't have made it and they know it." Fishermen's wives have traditionally contributed to fishing enterprises in many fisheries (Nadel Klein and Davis, 1988; Binkley, 2000). In Norfolk, many women are involved in processing crabs, taking and making deliveries, running shops as well as managing accounting elements of the business. A retired Cromer fisherman, Joe explained that a fisherman's strategy for 'getting rid' of crab is likely to be dependent on his wife's involvement in the fishing business which as Section 5.2.5 pointed out requires time or investing in paid help.

If I [started out again] and bought a little boat, the first thing you would do is to find a couple of hotels. I would go to sea, I'd boil them and then Helen there would have to sit there and dress em. She's the one who would have the work to do.

Parallels can be found in farming literature on the reliance of family members for labour (Lobely and Potter, 2004). However, crab dressing is now undertaken by fishermen as part of their job and not 'something only women do'. Women in fishing households have increasingly turned to other forms of employment, which provides increased financial stability (also observed in Pettersen, 1996; Binkley, 2000; Britton, 2013). When I told Jim, that I had expected many women to be involved in fishing businesses, he responded:

Yes, a while back that would have been the case.... but, we realised that having a wife in a full time job doing something different was more helpful because there is at least one income all year. We have no income for 3-4 months so in the interest of keeping things ticking over and paying the bills....

As was found also in Norway, when women take up paid employment, fishermen may spend more time at home and may, as Nick or Bill have, combined their work as fishermen with caring for family members, as I explained in Section 5.2.3.

Having a stable relationship was not only important for division of labour, but also for social support. For instance, Ben alluded to alcoholism among fishermen, particularly those without a family home.

Most the fishermen from Wells, if they ain't got someone, they get back from sea and go straight to the pub. [...] They'll sit there drink themselves into a mess. I know a fisherman that sleeps on his boat, or he has slept in the back of his van on the quay. He hasn't got anyone to go home to.

Such issues were more prominently reported from harbours including Wells, Lowestoft and King's Lynn, where fishermen work longer hours offshore. The situation in Cromer and other beaches tended to be quite different particularly as most of the fishermen own their boats, spend less time at sea, with more time processing or selling their catch and, often commuting daily by car. Socialising in local pubs as historical accounts and older fishermen suggest has become less common (Stibbons *et al.*, 1983; Whittmore and Morris, 2012). Two of the younger fishermen I interviewed, Ben and Chris, both in their 20s, had experience working offshore on windfarm boats and fishing boats where they had observed this trend and were wary of the implications. Chris said:

They're all ... some of them are getting divorced because they're just not at home enough and I thought 'Well I don't wanna live like that'. I wanna have a life as well and if I can do something out my back garden....

Ben reflected on the importance of having a solid relationship as a fisherman and how fishing might affect his future family life:

It's finding that person that respects what I do and basically stand by me. Which is hard to find. [...] Obviously if I had my own little family, I wouldn't let the job interfere with marriage or my family. If the one I was with said 'I want a family holiday' at the busiest time of year, I wouldn't say 'No I need to go to sea'. I would be like 'well I'll be able to go for week' or something like that.

Observing how fishing has affected the lives of fishermen they know has influenced how these young fishermen perceive their own future and career in the fishing. It may also reflect demands of today's society where men are expected to be involved in family life, which may not be compatible with fishing when long hours are required. Furthermore, the need for financial security, which increases as a household grows, can be difficult to achieve today solely through fishing. In addition to household factors, livelihood choice was also influenced by relationships to others in the fishing community and by an attachment to occupation and place identity.

5.4 Place identity and livelihood responses to change

5.4.1 Commitment to fishing: occupational identity

The commitment to fishing is often mentioned as a factor, which keeps fishermen fishing – through their occupational attachment - even when this may not seem viable economically (Bavinck *et al.*, 2012; Acheson, 1981; Pollnac and Poggie 2008). Attachment to fishing and the social identity it represents can have a strong influence on how fishermen will respond to change. For instance, the bravery and adventure which form part of this identity have been put forward as explanations for the low level of perceived physical risk from fishing (Poggie *et al.*, 1995). When I interviewed one fisherman, Stan, 47 who crews on a beach boat in North Norfolk, his wife Susan told me “He would go and work for free if he had to”. Stan added:

Susan always laughs when I say this. I think it's the way of life, more than the job. I always think the people who work at sea seem different. I've got nothing against the people that work ashore but, I just couldn't see myself, you know, working ashore. If I'd have tried working ashore, I would have gone back to sea eventually, whether that would be wind farm boats or what we call garden work, for cables and pipelines.

Whether fishing is conceived as ‘a way of life’, or ‘just a job’, the level of commitment to fishing is important. For example in Kent ‘commitment’ to fishing was found to be what determines who is considered a ‘real’ fisherman (Ota and Just, 2008). I also argue that the commitment to fishing can be extended to a wider commitment of working with others around. Carl expressed this by emphasising trust in terms of commitment, reliability and loyalty:

Trust - that goes right through what it means to be a fisherman. You don't get on in this game if people can't trust you. You soon get a reputation. [...] You rely on each other for all sorts. We interact with each other on a daily basis. It can make a difference between you being alive or...not.... Perhaps [it] doesn't relate so much on the land.

Many fishermen spoke of the enjoyment of fishing which a providing a better quality of life, being outdoors and away from stresses on land. For example, Leo who also works on a building site, said: “I love fishing and the freedom of it. When you've been out on a dusty building site.... Going to sea, there's so much more quality of life.” However, others presented a more realist, less romanticised perspective suggesting that this was simply a job, a tough one and something they had fallen into. However, most fishermen talked about how they would never be able to get a job ‘on land’, some having tried to ‘give up’ fishing for their families. As both Carl and Stan stress their identity as fishermen by emphasising the difference between those who at sea. Fishermen over 45 years old

considered that their options for other employment were limited. One of the alternative jobs open to fishermen is to work on windfarm boats. David however maintained that:

I want to catch fish, I am a fisherman. That is what I do. This is what I've grown up to do and probably what I was bred to do. I don't want to work for a wind farm company and a lot of those guys wish they hadn't.

Occupational identity can also explain the reluctance some fishermen have to take up other paid employment or even to diversify into processing, as Nick expressed in 5.2.3. The idea of commitment to fishing can explain the attitude towards the 'part-timers' discussed in 5.2.4. Notes from an Eastern Sea Fisheries Committee report (undated, circa 1990), at a time where licenses were being debated, shows that perception is not new. It states 'The full-time fishermen, who are the hard-core traditionalists are being replaced by young part-timer fishermen or "after-tea" fishermen, who go to sea to supplement some other income and who are a different breed of men'. This extract implies that the part-time fishermen are different to others, that they are not committed or 'hard-core' enough to work full-time fishing. As long as they have not committed to fishing, they are not considered true fishermen.

5.4.2 Commitment to place – belonging

Identity was often also linked to place and several fishermen talked about being accepted on the beach. To an extent, this is limited to 'banter' between the fishermen across neighbouring villages and towns. I observed that a Sheringham fisherman fishing from Cromer will always be called a 'Shannock', the local word for someone from Sheringham. There were indications that in the past, being accepted on the beach was more difficult and that fishermen may be more accepting of mobility amongst fishermen. The case of the 'Runtoners' moving to Cromer was probably an example of this – even if this was facilitated by the local government. However, there were clearly divisions within groups of fishermen, even those working from the same beach. When I asked, Pete, who did not grow up in Cromer whether he was a 'Cromer fisherman' he responded: "Yes I would say I am a Cromer crab fisherman. But people who live in Cromer would not class us as a Cromer fisherman. They don't like people from outside being here." Stan also recounted:

They always used to sort of wind me up a bit and say I was a foreigner. You've got to be there so many years before you get accepted. But that's changed a bit now. You tend to sort of call yourself where you work from really I suppose. When I was at Lowestoft, we were always called Lowestoft but we could be in Grimsby, and all over the place

Carl, also spoke of this divide, particularly between those considered from traditional Cromer fishing families and those who are not:

On the beach, you'll see it. When it's rough one morning, we'll have a yarn then to decide what we are going to do. And you'll see there'll be them 4 or 5 up that end and us lot all up there. That's just how it is.

Place identity may be a factor shaping who works where and with whom. This is indicated by those fishermen who continue to fish from a certain place even if they recognise it would be more practical to work from somewhere else. For instance, Tim from Overstrand said:

This is a harder place to work because the tide will come right up to the wall so we can't go anytime. Like one week we'll be down here for 3 o'clock in the morning and [the next week] we'll change over.

When I asked if he would ever work from Cromer, less than 10 minutes away, he responded: "No I prefer to work here. I was brought up here, that's why I like it here.' Similarly, Leo who works his boat from Cley – despite living closer to Sheringham - told me: 'I'll always go from Cley. You know, when you've fished in an area, you know even though I [don't] live there, [I'll] still fish from Cley cos that's the area you've known and that's where you've grown."

Relationship to place plays a part in the choice of where to fish. While it can be functional, it can also shaped by attachment to place rather than practical reasons. For instance, Rosemary told me of a fisherman who has a boat on the beach in Weybourne, a very steep and pebbly beach, but lives in Cromer, passing three beaches where a beach boat could be launched from. "They're choosing the worst beach!", she exclaimed. "...which is ridiculous, just because he doesn't want to mix with the other fishermen".

5.4.3 Commitment to working with others - reciprocity

Fishermen are not just committed to their occupation, but also to others they work with, whether these are family members or employed staff. Family members are often involved in the work that starts once the crab is landed. Working with family members or with friends, as most fishermen still do, is very different to employing staff. Nathan, 66, who was selling crab from a local stall when I interviewed him in September explained:

It's the same with anything if you're self-employed. You only get out what you put in. If you don't do it no-one else will. We just have three of us here [dressing crab] and er we

haven't had one day off between us for illness since March. You can't. You might not feel too good but you have to come in.

The three of them do everything themselves and are all close family. He explained that they did not hire anyone else although they could have done with extra help, was due to concerns of reliability and work ethic in working with a non-family member. There is also the added pressure of having to pay an employee every month and need to make sufficient revenue to do this. Carl also explained that although many of the beach boats work on their own, they are still working together, just differently. He said:

You are out there working and you look across and there will be Jeremy and half a mile that way there'll be Ed and you look and think "Well, he hasn't moved much, what's he up to?" You're consciously aware of them. When I haul my gear out there [...] I'm constantly making decisions based on what they are doing. That's where we become one. Out there, once we are afloat. Then, we are a united body of fishermen.

As fishermen often now also live outside of the fishing place they increasingly rely on their networks, communicating by phone with other fishermen from other places. The way in which fishermen depend on each other today is for safety but also for other forms of support. In particular, those without family involved in fishing often rely on another fisherman. Nick for example said:

That is good, having people you can rely on when you are fishermen. When Mark was very ill, I would be [visiting him] almost every day. We're really good mates. He always helps me out with getting the boat up beach. It is handy having someone you can work with. Especially when you're working on your own.

Commitment to others also extended to customers. As David said:

When customers are relying on you, you have to get on with things. I would love to have a day off in the summer but you try telling the customers that. You push it sometimes probably more than you have to sometimes if it's blowing a gale. Good fishermen have to do that once in a while because you have bills to pay at the end of the day and obligations to meet.

Building good relationships with customers is important for several reasons. Firstly, the fishermen will provide the best quality for their best and most reliable customers (Section 2.5.3). Secondly, if a fisherman's catches are low, a customer who knows and trusts the fisherman will accept this. The challenge each year is being able to sell all the crab that is landed but not letting anyone down when there is a shortage. Commitment is therefore an important concept in livelihood responses. A commitment to fishing is part of occupational and place identity of fishermen and shapes the social organisation of work as well as types of strategies fishermen are likely to adopt in response to change. This idea of commitment extends to working relations across the supply chain from closely involved family members to customers across the region.

5.5 Social implications of livelihood responses to change

Livelihood changes and wider social and economic change have had implications for fishermen, in terms of their identity as a group and relationship to place (see also Sections 7.4 and 7.5). The narratives about livelihood change told by the fishermen also provide some indication of occupational identity which develops with place, in terms of individual and group identity. In an interview with a couple of Cromer fishermen Robert told me:

You used to come ashore in them old boats and they had a smell of their own didn't they? That sort of tar and seaweed and the beach would be looking warm. There was always something about the job....but that has changed.

When Robert remembers the smell of the wooden boats, he also links this memory to place, to the warm beach and nature of work. Where fishermen work is deeply relational and has an important role in shaping both occupational and place identity. The nature of working as a fisherman has fundamentally changed, both technically, in terms of how fishermen work, but also relationally. As mobility increases and the size of the fishing community changes, the dynamics of the communities they belong to may be modified. Working single-handedly rather than in crews has profoundly changed relationships in the fishery. Some fishermen told me that working alone at sea is less enjoyable and joked they now talk to themselves or the seagulls. Tony, from Cromer, said: "I find it very lonely to be honest with you. I find it very very lonely." Jim also commented on the increased psychological stress due to the physical risk of working alone:

If there are two or three of you there is always someone looking out for you. But one handed the only person to look out for you is yourself! So mentally your mind never rests. I mean we've been at sea laughing, bloody joking, having a ball... Still getting on with the job but you know, it's good fun. Whereas, being at sea on my own is.... You get used to it but, it's not good fun.

Additional stress from having to work longer hours in order to make a living may also place pressure on fishing families. As in many other UK fishing communities (e.g. in Kent in Ota and Just, 2008), divorce is relatively common among Norfolk crab fishermen. It seems more than the national average of one in three (ONS, 2012), which is perhaps surprising given the importance expressed by fishermen of a stable marriage. Ben said:

Some of the blokes outta Wells. [They do] 24 hours and come back for 12. But obviously [you're] sleeping in them 12. And then back to sea for another 12 or 24 hours." [...] There's a fisherman, he's just broke up with his missus through fishing. She can't cope

with him being at sea like he does. He's got that sized boat and had loans out so he's got to pay it off.

While this was particularly the case for harbour fishermen who are away at sea for longer hours, beach fishermen also expressed pressures from their fishing business on their household and family life. However, there was some indication that relationships between fishermen have changed since they work more on their own. Helen who is married to Joe said:

A good thing with the single boats is that [it] brought back that camaraderie.... As much as fishermen don't really say what they caught, they will always know where [each fisherman] was. They'll watch out for each other. Even if they don't make it known, they know someone was watching out for them.

Once fishermen are on land they are in competition for customers and in the past that has worked to their detriment. Fishermen have not worked collectively in this fishery to set prices or to buy equipment collectively as they have in other fisheries. Tom explained "Not so much now, but years ago, people would always undercut you. Which is a stupid thing because if we would have said this is the price for crab then we would have all earned more money!"

Some fishermen do work together but keep their businesses entirely separate with their own customers. For example, a couple of fishermen take it in turns between them to boil the crab, deliver their product and collect bait. However, when they boil their crabs together, they use marked bags so their crabs are not mixed. Female relatives dress the crab and again keep crabs caught by the different fishermen separate. Despite many of the ways fishermen work together, and the sense of solidarity that exists between fishermen particularly if a fishermen were in danger, there are apparent divisions within the North Norfolk crab fishermen even on the same beach as I mentioned in 2.3.2. Norfolk crab fishermen may be best described as 'cooperating individualists'. Van Ginkel (2001) suggested that there is a paradox inherent in many fishing communities, where inshore fishermen particularly value independence and self-employment but often have a strong social ethos. He argues that cooperation and competition work in conjunction often in determining access to a fishery. Indications of this can be found through observations of collective action responses by otherwise individualist fishermen in natural resource management.

The fact that fishermen increasingly work on their own and have in some cases had to change where they work from has altered the relationships that fishermen have with each other. Many of the changes fishermen have made to their livelihoods have been to gain more control over the income

they earn and the life they lead. While these fishermen continue to work independently, in some respects they work together more (e.g. helping each other out on the beach and at sea), at least when this does not increase the level of competition between them. The changing nature of relationships within the fishing community may have implications for social resilience.

5.6 Conclusion

The types of strategies that fishermen have adopted in response to the pressures identified in Chapter Four can be summarised mainly as retrenchment, diversification, expansion, mobility and part-time fishing. Downsizing has been the most common strategy amongst the beach boats. Often this is linked to diversifying income through processing in order to enhance income. Mobility has been necessary for some boats to downsize, particularly for those working on their own. The factors, which influence these somewhat linked strategies, are preparedness to invest and take risk, as well as social support from family and other fishermen. Holding another job and part-time fishing is the least popular and often frowned upon by other full-time fishermen, who perceive that part-timers are no longer 'real' fishermen. It can be interpreted as a mix of retrenchment or diversification out of fishing, in order to reduce risk and increase stability of income. However, this can also be a way of 'expanding' into fishing, a way to gradually invest in becoming a fisherman (discussed in next chapter). The social identity of fishermen plays a role in mediating responses to change including mobility, and part-time fishing in particular, but to some extent diversification.

The level of financial capital and attitude towards financial risk, is shaped by age and particularly lifecycle and social support from family. This implies that the social dynamics of a fishing fleet can have an influence on how fishermen adapt their livelihoods over time and therefore its potential social resilience. A younger fisherman is more likely to work longer hours offshore, while as fishermen become older they spend less time at sea, are more selective with what they catch and arguably fish in more sustainable ways using their experience to prioritise quality over quantity. As fishermen become husbands and fathers and increase their commitments to family life and to providing a regular source of income to finance a home or schooling, they may work longer hours, take up other employment instead of or alongside fishing. Women's role in fishing businesses has also changed with more women taking up other employment to ensure one stable income to the household, a response found in other fisheries (e.g. Norway, Pettersen, 1996). Having the means to invest in a fishing business is important in terms of financial capital but also in terms of time. When family members are involved in working in the fishing enterprise, fishermen can reduce the risk and commitment involved in employing staff. Above all, a fisherman's choice of livelihood strategy

depends on a variety of factors – the household’s financial and social resources, willingness to invest in the fishing business, and acceptance of perceived risk- which are often ignored by institutions governing fisheries.

The social dynamics within the fishing community are likely to have implications for the social resilience of the fishery. The fact fishermen increasingly work at sea on their own has altered the nature of relationships within the fishing community. While divisions still exist between fishermen, due to the level of competition between them, beach fishermen can be described as individualist co-operators. They regularly offer each other mutual support each other in their work and several fishermen have become involved in discussions the future of this fishing community (discussed further in Chapter Eight). This chapter has shown how existing fishermen have responded to change and ensured the continuity of their activity and of the fishery as a whole. The social implications of adaptive strategies discussed here pose some questions for the fishing community’s well-being and future. The financial and time commitments necessary to keep fishing business afloat today pose particular strain on young fishing families, with concerns including childcare and mortgages. Although the crab fishery and its identity have broadly been maintained, questions remain over how long it will continue. The next chapter explores the issues around young people entering the fishery which will be crucial for its future.

Chapter 6: Changing pathways for ‘getting into’ fishing and ‘becoming’ a fisherman

6.1. Introduction

The lack of younger generations taking up commercial fishing is a growing issue in European and other fisheries worldwide (e.g. Norway and Canada: Neis *et al.*, 2013; Sønvisen, 2013; Power, 2012; Brazil: Trimble and Johnson, 2012) with considerable implications for the sustainability of the industry. It not only poses serious questions for the survival of individual enterprises but also has implications for local ecological knowledge, skills and fishing heritage. A significant present threat to the continuation of the Norfolk Cromer Crab fishery is the lack of new fishermen, particularly of young age, entering the sector. I estimate that less than 20 per cent of Norfolk Crab fishermen presently working as crew or as skippers in this fishery are under 30 years old. The risk is that, as existing Cromer fishermen retire, the activity may effectively disappear as it has in a nearby coastal town, Sheringham⁵⁸. Norfolk crab fishermen have reported good catches and prices in recent years; market demand has been increasing and is not always fully met in the summer months. However, although there appear to be good commercial prospects in crab fishing, there are few new entrants.

As I explained in Chapter Four, commercial fishing has generally declined in the United Kingdom since the late 1980s (MMO Statistics, 2014) following restructuring policies to address overcapacity (Hatcher, 1997). In Chapter Five, I outlined the main changes that have occurred in the North Norfolk crab fishery, and how those fishermen who are still fishing today have managed to remain in business by adapting their livelihood strategies. As I explained, the nature of relations in the fishing communities around Norfolk has changed. This chapter investigates why recruitment into fishing is failing. I discuss the perceived financial, cultural, social, institutional barriers to young people getting into fishing. I discuss how the processes of becoming a fisherman today have changed in terms of gaining the knowledge and experience required to be a fisherman, and securing long-term employment in this sector. Becoming a fisherman— as other rural jobs including farming - is generally expected to be shaped by kinship and social ties within a community (Miller and Van Maanen, 1982; Symes and Frangoudes, 2001). I conclude by discussing the findings in the regional context, and in terms of social resilience and the future of this fishery.

⁵⁸ The majority of the fishermen in the North Norfolk crab fishery are aged between 40 and 50 years old and are likely to retire in the next 1-2 decades or less. In the last 1- 2 decades only a handful of new fishermen have started to work in the fishery and even fewer have entered the fishery with a boat of their own.

6.2. The issue of recruitment failure

Most fishermen I spoke to considered recruitment to be a serious problem and one that needed some kind of coordinated intervention. This was illustrated in an interview I with Joe and his partner Helen:

Joe: "It would be nice to see younger people come into it because to be honest if you said 20 years' time, none of the fishermen there now would still be fishing! And 20 years soon slips away don't it..." [Pause]

Helen: "Something needs to be done. [Longer pause]

It's almost getting to the stage where, with conservation, that's quite handy because the fishermen are easing back through natural wastage anyway so if there would be someone saying 'well, actually we need so many fishermen to keep this a sustainable fishery', when the natural wastage has passed by... then you'll have cracked it. But, it is encouraging those ones now ...who want to do it. And they don't have to be local people, really, as much as you want them to be. I mean there must be people out there....some lad somewhere, in the middle of the country who says 'I'd like to go to sea!' He's seen it on the telly and he is just the man you want. In some ways it is balancing itself out."

Helen discusses the need to find a balance or an equilibrium between the number of people who can make a living from fishing and the available resources in nature from which it is possible to make a living. She indicates that this equilibrium may be on its way to being reached as fishermen 'ease back through natural wastage' when they retire or leave the industry. However, she highlights this natural balance is still dependent on new fishermen entering the industry, even if they are not local or from a fishing family. Implied in what Helen says, is that the marine conservation agenda may have skewed this balance in such a way that opportunities for new entrants are restricted which may compromise intergenerational equity and the future of the fishery. This extract points to ideas linked to reaching an equilibrium or 'sustainability', understood in the sense of sustainable development: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (UN, 1987, p. 41). While overfishing and overcapacity in the fisheries sector were a serious concern across Europe in the 1980s and 1990s, the demographic balance in the workforce of the fishing industry has shifted to older fishermen and needs to be addressed if it is to continue long-term.

6.2.1 Prevalent narratives

The issue of recruitment came up at the start of my research and I discussed the problem in the majority of my interviews with fishermen. Here, I use narratives from fishermen to explain why the

fishing community is ageing due to a lack of new entrants. These can be characterised as offering an analysis of the combination of push and pull factors for ‘becoming a fisherman’ and ‘getting into fishing’. While the push-pull hypothesis has been used by Johnsen and Vik (2013) to develop insights for recruitment policy based on understanding why fishermen leave the industry, my interest is on those trying to enter the fisheries sector. Narratives concerning push and pull factors are in reality difficult to separate. I present several related narratives, which reveal sometimes conflicting perceptions of the underlying problem.

One common perspective put the emphasis of the causes behind recruitment failure on an increasingly restrictive regulatory framework or on changes to the labour market, economy and social mobility. However, one of the contributing factors to the problem is downsizing of crews in the crab fishery, which I discussed in Chapter Five. It has largely been an adaptive response to the squeeze on profit margins for small-scale producers unable to expand output to meet rising operating costs – or selecting a retrenchment strategy involving less risk than investing in expansion. As Tom from Cromer explained:

[We were] always three men in a boat. Now the majority are single-handed boats simply ‘cos you can’t afford.... You can’t get good reliable crew to start with and simply you haven’t got to pay anyone then. Whatever you earn is your own. If you got two crew with you, then you’ve got to work ‘x’ amount of pots to make up that money to pay them”.

The problem of recruitment, alluded to in Tom’s comment, may also be a reflection of changing social culture and different expectations among the young. When I asked Carl who was with another fisherman Tom, whether they had had issues with crew reliability they laughed and said:

Carl: Yeh, everyone do!

Tom: Most people work well when you get there but that’s the initial bit of getting them there. Getting them out of bed!

Carl: That is an antisocial job.

Tom: That’s just the hours you work.

Carl: It’s hard to tell a young person at 10 o’clock at night he can’t have another pint, he’s got to get his head down cos he has to be up at half 2. His mates are there and he is having a bit of fun. You see it all the while don’t you? Young people nowadays know that when push comes to shove, they’ve just got to go and sign on, haven’t they? They aren’t going to be skint are they? Years ago, you didn’t get a lot of help.... Who do you know who is going to stay in the stern of the boat like you used to [when] there’s water flying in all directions? Kids won’t stick at it will they?”

While much of this is about perceptions that youth lack some of the values necessary to work in the fishing industry, it is also about some of the conditions of work which are particularly difficult in today's society. Long hours without holidays or time off may not be compatible anymore with what young people expect from their job.

A rather different perspective was offered by Alan from Cromer concerned with the increasing regulatory and financial obstacles put in the way of young people looking to enter the industry today, particularly in terms of formal training relating to health and safety.

Years ago you never had to have no 'qualifications'. Now, you've got to have this, that and everything else before you're even *allowed* to go. That's making it harder for young people to get into [the industry]. Years ago, you got a job as a crewman for a few years on a boat. Then you got enough money to get your own boat and gear and start off on your own. We just learned at sea.

Ben, a young fisherman in his 20s, agreed with Alan but also expressed his frustration at barriers he faced accessing employment. His perception is that older generations are reluctant to transfer access to the fishery to younger generations and were even discouraging young people from an occupation in fishing.

When you think about it, why should they want young people taking over? They don't want us coming in while they're still fishing. But, yeah, when they're retired, they'll say 'Oh, I wish some young people were coming in!

He added:

My boss sometimes says 'You're stupid for wanting to come out here and do all this hard work to earn a living'. But I want to. Others have said it too. It's people like that that put young people off.

When I asked young people participating in the Get Into Fishing programme about how likely they were to move from Norfolk, most who had grown up there did not expect to move away usually citing family and friends in the area which may indicate some level of place attachment in Norfolk. However, employment opportunities are limited as is access into further education given that Norfolk has one of the lowest GCSE results in the UK. Fishing – which does not require further education - could provide employment for young people from Norfolk who want to stay in the area.

As Helen and Joe expressed many in the fishing community would like to see younger generations enter the fishery even if these were from outside their community. One of the Cromer fishermen Jim put it like this:

We need new blood in the fishing industry. It's as simple as that. Whether it's my family blood or someone else's does not matter. But, I'd like to think that when I'm dead and gone there's still someone doing it

The quotes cited above serve to indicate how recruitment may be enabled or constrained through factors relating to access, and highlights intergenerational tensions. I turn to examining the material processes of 'getting into fishing', in other words the factors which enable or constrain this (6.3.1) and then explore the different pathways individuals may take to achieve this and gain full-time employment (6.3.2).

6.3 Processes for becoming a fisherman

6.3.1 Learning the ropes, 'getting qualified'

In order to go to sea on a commercial fishing boat, the Maritime and Coastguard Agency (MCA) requires⁵⁹ all 'new entrants' to have completed the Basic Sea Survival course of one day which costs £140. Within three months of starting work on a fishing vessel, there is a legal requirement⁶⁰ to complete three more courses, which cost a total of £290 for 3 days including Basic First Aid; Fire Fighting and Prevention and Basic Health and Safety^{61,62} (Figure 6.1). A final course on safety awareness (£90) must also be undertaken within the first two years of employment. These courses are mandatory by law, and were introduced in 1989 and amended in 2004. Records collected since 2008 by ESTA, show that of those who completed the final course in Norfolk, only 8 per cent are under 30, indicating a high drop-out rate within two years (ESTA *pers. comm.*, by email on 2nd February 2015. Anonymised data from training records of fishermen in the East of England). This compares to 3.5% of under 25 year olds involved in fishing in Northern Ireland (Britton, 2013).

While skippers of larger boats may be prepared to fund such courses as an investment in good crew relations, the majority are unwilling to do so without any guarantee that the new entrants will

⁵⁹ Legal requirement under The Fishing Vessels (Safety Training) Regulations 1989 amended in 2004 by Statutory Instrument No. 2169

⁶⁰ MGN 411 (M+F). Marine and Coastguard Agency Notice. Training and Certification Requirements for the Crew of Fishing Vessels and their Applicability to Small Commercial Vessels and Large Yachts.

⁶¹ The requirements for these courses were introduced in 1989 so most skippers have only had to take these courses in recent years, some after decades of working at sea. When they were introduced courses for 'experienced fishermen', considered as those working for more than 2 years, were fully funded. No government funding is available for new entrants to complete these courses.

⁶² Prices from Eastern Seafish Training Association website (Accessed on 1 June 2014).

remain in their employment. As a result the burden of payment for training will usually fall on the new entrant, particularly as the legal responsibility and penalty in case of non-compliance is with the fisherman and not his employer. At a total cost of £430 in the first three months of employment, this represents the equivalent of half the monthly starting salary for a deckhand⁶³, a substantial investment for a young person still exploring their options. Due to the unpredictable nature of fishing, the average monthly salary for a deckhand, whether paid for days worked or based on a catch share, may be even lower. There may also be reasons why a new fisherman may not complete the full four courses within three months, including not being able to get time off work or simply due to a shortage of course dates in their area.

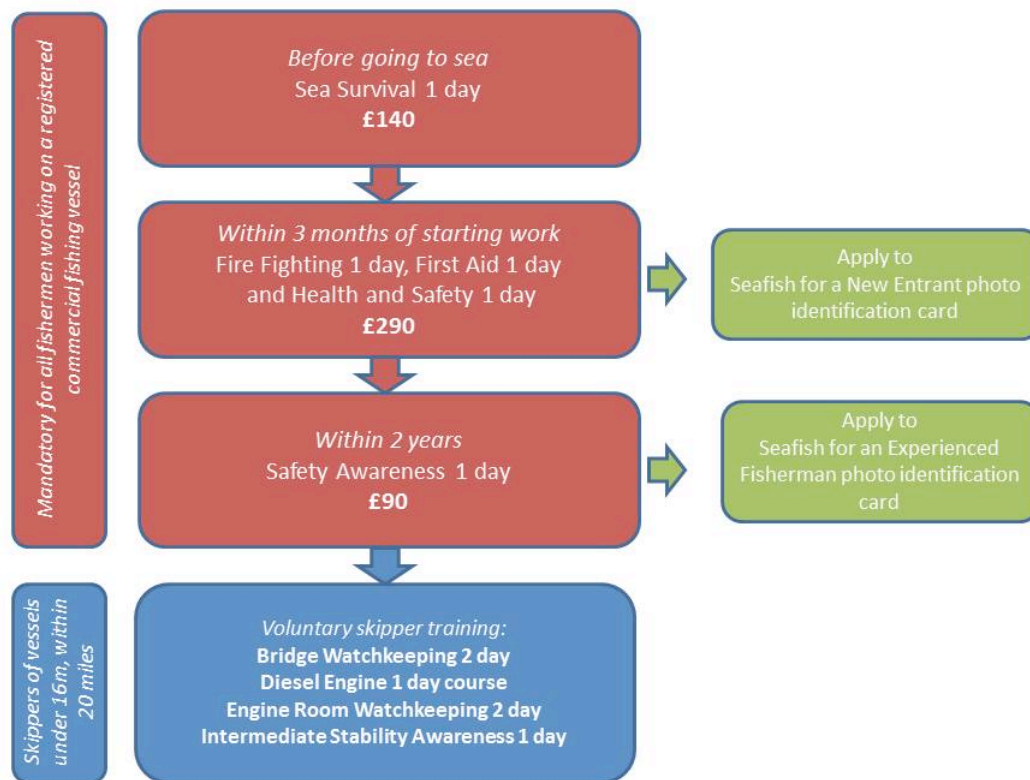


Figure 6.1 Training certificates. In red, requirements for all new entrants since 2005. In blue, voluntary training for boat skippers.

The National Careers Service website suggests that “As you gain more experience, you can take further training, for example in navigation and basic engineering” or “a qualification like the Level 2

⁶³ The National Careers Service suggested that the starting salary for a deckhand is £ 10,000+ per year. Crew on board Wells vessels can expect £100 per trip and crew on beach boats around £50-60. Usually no income is received when the boat does not go to sea.
<https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/fishingvesseldeckhand.aspx>
 Accessed on 12/06/2014.

Diploma In Maritime Studies: Sea Fishing.” However, these will not necessarily increase the chances of gaining regular employment in fishing as ‘paper qualifications’ tend to lack credibility among older fishermen. For instance, when I told a couple of fishermen I had done a Sea Survival course when we were discussing whether or not they would be willing to take me out on their boat, they burst out laughing and exclaimed:

Tom: Sea Survival...yeh... that don't mean anything! That's alright when you're jumping in the swimming pool but when you jump in the sea that's not the same! [more laughter] Especially not now!

Carl: Noooooorr, what man! I went over the side in March and I can assure you, I couldn't even breathe. I. Couldn't. Even. Breathe. That was horrendous. And I bet only got wet above there.... and I went zoom, straight across the side of that boat. You wouldn't believe it! [.....] People have no idea.... what actually go on!

Much more importance is placed on experience-based learning and the acquisition of practical skills and personal attributes needed for being a successful fisherman. As Carl observed:

I was taught to do things without realising ... That's like when I take my grandson to sea now. I let him steer the boat. He's good at it. He's not aware he's being taught. I'm not teaching 'cos I want to teach him – it's what he wants to do. So if I give him the basic skills and then ... that will be up to him, won't it? But he won't go into it cold. Like my son, I explained to him that, at night, at sea, if something bad happens you need to be able to tie that knot in the dark whatever. I would not let him go out on his own till he could do it with his eyes shut.

In the past, a new fisherman would have learnt the dangers of the sea from the skipper he would go to sea with, from hearing stories of other fishermen and from experiencing or observing different situations. The increased bureaucratization of working as a fisherman, of which the introduction of mandatory courses is cited as an example, has created barriers to being and becoming a fisherman. Young fishermen learn the dangers of the sea from the skipper they work with, from experiencing and observing different situations and hearing the stories of other fishermen. Jack, 21, one of the few to crew on a relative's beach boat, related his experience of learning at sea.

Last year he [the skipper] started letting me take the boat ashore and hauling and baiting up. You start learning different things and picking new things up. So every season I go, I get new things known to me. But the thing is, what I need to pick up is ... all the tides. That's the hardest bit, knowing when the tides are. You got the spring tide, spring ebb, flood tide and all this. They're what you've got to know.

Learning to fish clearly does not rely on universal rules or bodies of knowledge. As the above quotation shows, knowledge of the tides – when they occur and what they mean in fishing terms – must be constantly updated and learned *in situ* in response to local conditions. Similarly, safety at sea largely relies on the habits fishermen learn to follow and which are acquired through practice, not from a textbook or in a classroom. Learning to fish clearly does not rely on universal rules or generic bodies of knowledge. For instance, knowledge of the tides must be constantly updated as part of a dynamic process that is responsive to the local conditions. The increased level of bureaucracy involved in working as a fisherman – of which the introduction of mandatory training courses is often cited as an example – may dissuade new entrants from becoming fishermen. Formal training requirements are seen by fishermen as ‘hurdles without meaning’ and as undermining the natural process of recruitment.

6.3.2 The ‘test trip’ and getting your first job

Once a fisherman has completed the mandatory courses to go to sea, and has acquired sufficient experience and practical skills for working at sea, which make take a year or two, the aim is usually to find stable employment in fishing. In the past, in the North Norfolk crab fishery, this would normally have been aboard a three man ‘crabber’, but today it is more likely to be on a beach boat designed for single-handed working or on a larger boat working out of a nearby harbour. The initial trip is an important test of the working relationship for both the skipper and new recruit. Going on one’s first trip is likely to prove a memorable and potentially life changing experience. Most fishermen I spoke to had a story about this, either of themselves or of someone they had taken to sea, involving sea-sickness, carrying on regardless and loving fishing or being incapacitated with nausea and never coming back. Nick recalled his first trip:

I started fishing when I was 16. I used to go down the beach when I was a boy and watch the boats going out. It would be first light in the summer around about four o’clock. And he [one of the fishermen] said ‘you ought to come one day’; so I went to sea – and it was an easterly [wind]. I was so sick, I laid in the bottom of the boat for about two hours ... That was horrible but I still kept going. I was sick for years, it took me ages [to get over seasickness]. Not always but, when it was an easterly because there’s a funny roll then.

The initial fishing trip is often not only an experience and a demanding personal examination, but also potentially a rite of passage proving either the start of a career or a one-off experience. It tests the new recruit’s stamina, practical abilities, work ethic and potential to form an effective working relationship with the skipper (Van Ginkel, 2001; Symes and Frangoudes, 2001). It will allow the

skipper to make an initial assessment of the recruit's potential skills, personality, reliability and ability to follow orders. As Tim explained:

Normally if they're [going to be] any good, you can tell it on the first day, or the first couple of days. If they like it, they'll keep going. A lot of them are just like 'Oh, it's a bit wet out here'. The boat's moving and they're a bit sick. But like, the boy Adam, he came round to see my Dad and me and said 'Can I have this job?' We took him to sea, and you can tell within ten minutes... As soon as we started hauling the nets, it was like he'd been doing it for years – and he'd never been out in his life.

But you can take another and think 'That's a waste of time'. We had a boy down when I was on boats after cod. It was a rough trip and he wouldn't come out on deck. The next day he came in with rubber gloves ... and he said 'I can't go home smelling of fish'. Well, we said 'You're in the wrong job then'. And he never came again.

This not only contrasts two very different experiences of taking someone to sea but also that whether or not someone 'has what it takes', and is 'up to the job of being a fisherman or not' is clear cut. It relates to holding the core values and innate ability to be a fisherman. This 'test trip' is still important today however; current fishermen told me that young people no longer tend to ask to come for 'trips'. When I asked the participants on the Get Into Fishing programme if they had approached fishermen, most had not and said that this was because they did not have 'Sea Survival' and would not be insured to go out to sea. In fact, a certificate is only necessary for a new entrant, not necessarily to just to go for a trip. However, as I found out through my own experience fishermen are very reluctant to take someone out to sea without knowing them.

After the initial 'test' trip, someone who wants to work in fishing needs to try and get a job on a boat. Most of the other boats may take someone occasionally as a helper but this is likely to be on a voluntary basis or for a token daily fee, for example, a family member or friend lending a hand at the weekend. Working with someone else involves establishing a personal rapport and a sense of trust in order to guarantee the security of medium to long-term employment. However, long-term work opportunities in the North Norfolk crab fishery are scarce. Job vacancies are inevitably limited, especially on beach boats where many fishermen have adapted to work single-handedly. As Ben explained:

They keep saying [that] there's no young people coming into the job anymore. But there is youngsters coming into it, 'cos I know a few of my mates who would come and do it. But ... all the boats off Cromer, they are single-handed. They don't take anyone on. If someone comes down there and says 'Can I come to sea with you?' they would say 'Well, no. I go on my own'. They're not looking for a crew. That's where it's all going to die.

Access to permanent employment is clearly limited by declining job opportunities. This lack of opportunity for all but a few means that in order to fish on a regular basis – sufficient to earn a living – an aspiring young fisherman must look to the second route into a fishing career: owning his own boat and being self-employed as a skipper-owner.

6.3.3 Getting a boat

The prospect of finally owning a boat, becoming independent and being one's own boss is one of the attractions of fishing that fuels the ambitions of most young recruits, at least on inshore vessels. In fact, in my interviews it became apparent that what was meant by 'new entrants' to fishery were skipper-owners of a fishing boat, not just fishermen who worked as crew members.

Becoming a skipper involves acquiring the material assets and capital needed for going fishing – vessel, gear and licence. Estimates of the cost involved vary between about £28,000 and £42,000 for a beach boat and in the region of £150,000 to £200,000 for the larger crabbers fishing from harbours like Wells. This is similar to figures I have estimated comparing data collected through various interviews and by checking prices online (Table 6.1). The main process for buying equipment necessary to work on your own was either to buy it new or second hand usually from websites, of which the most popular was <http://www.findafishingboat.com>, or occasionally through word of mouth by buying used equipment from other fishermen.

Because of the level of financial investment involved, the transition from deck hand to skipper-owner usually occurs later in a fisherman's career, after he has amassed some savings. With limited opportunities for crewing on the beach boats, the option of becoming a skipper-owner may be the only – albeit expensive- means of accessing permanent employment. Loans are often avoided or difficult to obtain. Tom who previously worked from Wells and now fishes from Cromer commented:

The thing is once you mention you're a fisherman everything is more expensive ... It's like life insurance, once you say you're a fisherman ... that's suddenly a lot more money ... And that works the same with loans. But then, would you want to borrow £100,000? You're not guaranteed what you are going to catch and you still have to pay the loan back.

Having all the equipment necessary for going to sea is not enough to be able to fish commercially. The boat must also have the appropriate licence or potentially face a penalty of up to £50,000 and forfeit of gear and fish. Licenses vary in cost according to vessel length and width and engine

capacity and ranging from between £3,500 for a 16 foot boat (4.88 m) with a 15 horse power engine to £10,000 for a 21 foot boat (6.40 m).

Table 6.1 Estimated costs for a working from a crab fishing beach boat. Data from interviews and from www.findafishingboat.com

<i>Equipment</i>	<i>Estimated cost</i>	<i>Number required</i>	<i>Minimum cost</i>	<i>Maximum cost</i>
Fishing license	£3500-10,000	1	£3500	£10,000
Slave pot hauler	£750-1000	1	£750	£1000
Beach boat	£6,500-8000	1	£6500	£8000
Engine	£3000-7000	1	£3000	£7000
Trailer	£1500-2000	1	£1500	£2000
Tractor	£3000-4000	1	£3000	£4000
Pots	New £48-50/pot. (Second hand: £10/pot)	180	£8640	£9000
Ropes	£50/coil	15	£450	£750
Pot anchors	£20-30 each	15	£300	£450
Total			£27,640	£42,200

If a boat is sold without a licence, its acquisition can be problematic as numbers were capped by national government in 1993. Since no additional licences can be issued, the would-be skipper must obtain his entitlement from an existing licence holder. The licence specifies the size and engine capacity of the boat. In addition, the type of fishing is specified- in the case of crab- by a shellfish permit since 2004. Should a vessel owner wish to increase his fishing capacity, he would need to find a way of modifying the existing licence, usually through acquiring an additional entitlement. Licence aggregation is subject to a penalty whereby the new capacity will be less than the sum of the two original boats. As Bill explained:

[DEFRA] issued licences. And then one of the boats wanted to buy a new engine and they said ‘No, the licence is only valid for the horsepower you’ve got.’ So someone, in their wisdom, said ‘I’ve got x amount of spare capacity on my licence, so I’ll sell it to you for a fee’ and, all of a sudden, licences started to have a value. They were given away for free at first but then someone realised there was [money] to be made.

Having a licence has become an investment that is worth holding onto, increasing in value as they became scarcer. While this may be a sign that the policy goal to reduce fishing capacity is working, it conflicts with other goals to sustain thriving fishing communities. Upcoming government plans to remove what is considered ‘latent capacity’ will only accentuate this further. Licences now have a market value. As one fisherman exclaimed: “If we’d all been smart back then we would have bought old wrecks and said right I want a license and then now they would be worth a fortune!” The price of

a licence now often exceeds the cost of a boat, adding to the financial burden and threatening to price many aspiring skipper owners out of the market. Licenses are an important factor which mediates entry into fishing. However, while it gives you the right to fish commercially it does not specify where to fish from, i.e. which beach or harbour you can operate from. This is organized informally on beaches and in harbours through paying mooring fee to the harbour master. As I discussed in Chapter Four, many aspects of working as a fishermen rely on having good relations with other fishermen and others working in the fishing sector. Once one is set up on the beach with a licensed vessel and gear, a fisherman needs to establish how he is going to earn a living from it; i.e. to whom he will sell his catch to. The processes involved in becoming a fisherman therefore involve both regulatory and relational mechanisms which mediate access into fishing.

6.4 Pathways to becoming a fisherman

I have discussed the processes for getting long-term employment in fishing, including through acquiring and licensing your own boat. In a sense, Section 6.3 has explained the basics of how to get into fishing and the regulatory constraints and financial costs involved in becoming a fisherman today which are summarised in Figure 6.2.

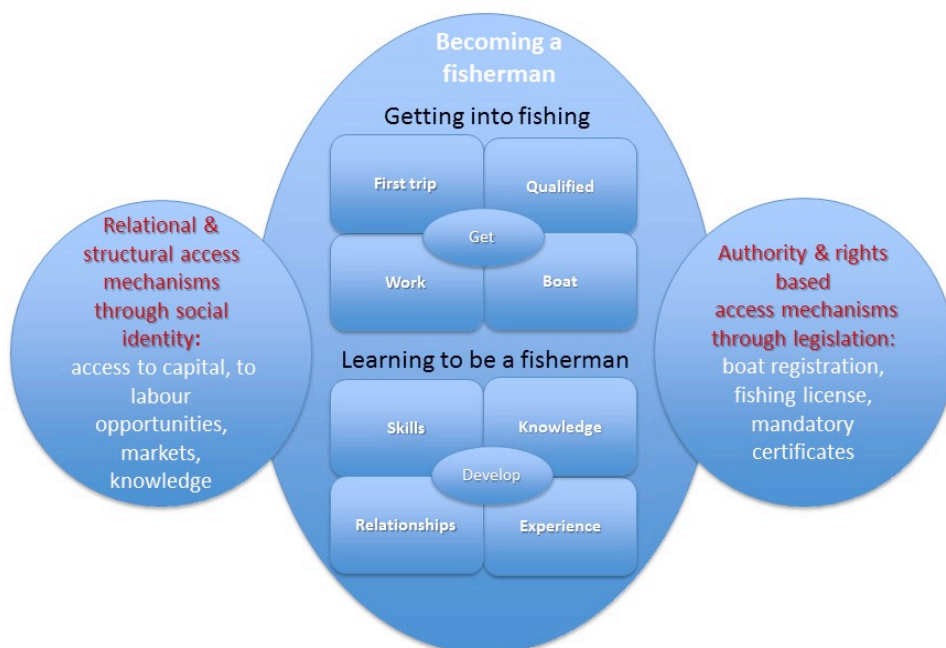


Figure 6.2 Access mechanisms for getting into fishing

I now focus on the 'pathways', for becoming a fisherman. As the ease of entry into fishing depends to a large extent on whether the would-be fisherman comes from a fishing or non-fishing background, I have distinguished two principal paths: the father to son hereditary pathway and what I have called the non-hereditary pathway. As with a farming livelihood, the conventional path for young people to enter fishing has traditionally been, either directly through succession and inheritance or indirectly through wider family based social networks (Symes and Frangoudes, 2001; Johnsen, 2004). I discuss this pathway in 6.4.1, whereby a fisherman's son would usually learn the requisite skills and knowledge of the local fishery, starting from an early age, on board his father's boat, eventually taking over as skipper and finally inheriting the family's fishing enterprise. For those not from fishing families, the pathway into fishing is less straightforward and involves several different options which I explore in 6.4.2. Fishermen who followed this path talked about hanging out around the beach, making oneself useful and waiting for a vacancy to come up. Failing that, skippers from nearby larger ports – Lowestoft, Great Yarmouth and King's Lynn –from time to time need crewmen for their offshore boats. New pathways, through apprenticeship schemes and training programmes, are also beginning to open up.

6.4.1 Hereditary nature of fishing

The ease at which those from fishing families were able to become self-employed was apparent. For instance, when I asked Bob about how he got into fishing, he simply responded:

Um, my father was a fisherman. When I was a youngster I sort of followed on from him. I started at 15 years of age, straight from school and er I worked for him for about 5 years and got my own boat, built my own boat and moved on. I've been self-employed for the majority of time I've been in the fishing industry.

However, the customary pathway whereby sons would follow fathers into fishing is no longer as straight forward as it once appeared. Social change – most notably in the form of improved education provision and increased social and spatial mobility – have widened the job aspirations of young people and their parent's expectations. As Tony put it: "I'd rather [my son] be a doctor or a solicitor or you know, a really highly paid sort of blokey so he can look after me when I get older." There is also evidence elsewhere that fishing is no longer seen as an occupation that offers sufficient status, financial rewards or job security and this has also been noted in fishing communities in Scotland, Canada and Brazil (Williams, 2008; Trimble and Johnson, 2012; Power *et al.*, 2014). As in other rural fishing or agricultural places in Northern Europe, young people – more often women than men - tend to leave as young adults to look for opportunities elsewhere (Glendinning *et al.*, 2003; Bjarnason and Thorlindsson, 2006).

Socialisation into fishing by family was the common experience of many existing fishermen in North Norfolk, and it occurred at an early age, as it does in many fishing communities (Van Ginkel, 2001). David for example, now nearly 50, recalled that he had gone to sea 'in his father's arms'. Many fishermen were 'more or less made to go' even if several fishermen told me that fathers and sons do

not always work well together. In these cases, they would have still gone fishing but worked with another fisherman from the community. The majority of those now in their 40s or older started fishing at the age of 15 or 16. It was something many fishermen did as soon as they left school. As Bill explained:

I started straight from school. I never had [another] job. My father gave me jobs. He would say 'what are you doing at school today, boy?' So I said PE (Physical Education). 'You're not going to that bloody thing; you can come and bait some lines for me!' So I used to bait long lines ... I'd always be doing things for him. I was under his shadow for a long time.

Today, there is no longer overt pressure from within the family to persuade sons to follow their fathers onto the family boat (though in private many would probably be proud to see them do so). Indeed, few of those interviewed were keen to encourage their sons to go fishing. Women's involvement in fishing can also have implications for shaping the identities of their children to pursue work within fishing (Nadel-Klein and Davis, 1988; Van Ginkel, 2001). While fishing is seen as hereditary, this is primarily patrilineal. And fishermen's daughters have never been expected nor encouraged to work on fishing boats. One fisherman, Bill talking about his daughters said:

One of them, she should have been a boy because she is a good fisher woman. She's just lucky when we go crab fishing. She wants to go.... but, there's not really any women [in fishing]. They were never encouraged. And I wouldn't say it is a job for a woman because; there are better jobs for women basically than going to sea. It's hard. Just simple things like hands.... you've always got coarse hands and a bruise somewhere.

The ESTA who have training records for all commercial fishermen in the region confirmed that there were no women working on fishing boats in the region. One of the participants of the Get Into Fishing programme I talked to was female and she told me she was laughed at by some of the Cromer fishermen on the first day after she asked them for directions to the Royal National Lifeboat Institute (RNLI) where the induction was being held. Fishermen generally were keener for their children – son or daughter - to pursue other career options. When I asked Nick who has several daughters whether if he had sons, he would have encouraged them to take up fishing, he replied:

I don't know. A lot of fishermen don't. They don't encourage them nowadays. Years ago they were more or less made to go ... but now, like Jim's son and Dave's son [they] don't go. And Tony, I don't know if his son will go. He was the one that for a while back looked like he was.

With so many sons now pursuing other options, the future sustainability of the beach boat crab fishery in Cromer looks uncertain. Donald, a 75-year-old retired fisherman from Cromer was pessimistic in his outlook when asked what he thought would happen in the future: “No, I don’t think there’ll be many more at Cromer to be honest, because the fisherman who has got sons – they’re not going to sea now”. He didn’t expect their places to be taken by men from non-fishing families. In this last respect, Donald seems to be unaware of, or unwilling to accept, the transformational change already occurring in the North Norfolk crab fishery – namely that the widely held view that social reproduction in small-scale fisheries relies heavily on the processes of succession and inheritance occurring within a largely closed network of fishing families is beginning to lose its relevance. Those aspiring to become fishermen may increasingly come from outside the fishing community, as has been observed in other fisheries and rural areas (Ota and Just, 2008; de Lima and Wright, 2009).

6.4.2 The non-hereditary pathway

While fishing is often understood to be passed from father to son, of the 15 skippers fishing from Cromer beach in 2014, only a third have a family history of fishing stretching back more than two generations. Six are first generation fishermen and four are second generation. Moreover, of the five young fishermen interviewed none had succeeded their fathers, though two had more distant family connections with the industry. This challenges the assumption that fishing must necessarily be an inherited way of life. For an increasing number of would-be fishermen, therefore, the more difficult, non-hereditary pathway provides the only means of entry to the industry. The problems they face are considerable, not simply in terms of the financial costs involved in acquiring and fitting out the boat (see Section 6.3). Without kinship ties in the fishing community, they may find it more difficult to find a skipper willing to ‘teach them the ropes’. As a participant, Alistair, on the ‘Get into Fishing’ programme explained: “The fact is that ... if you don’t come from a fishing background you can’t say ‘Oh, my dad’s a fisherman [or] my Grandad [was] a fisherman’ no one will give you respect.”

Expressing some form of social connection or identification with the fishing community – through family or friends – is an important way into the job. As Alan responded when I asked him whether he would take a young person from the Get Into Fishing programme for a trip “No. Fishing is a family thing isn’t it?” This response was striking to me because this fisherman did not himself have relatives in the industry when he started out. While he was willing to take out young people from his family or other families he is close to, he would not be likely to have someone he did not know on his boat.

Climbing the ladder: From deckhand to being your own boss

The lack of opportunity to work as crew on a beach boat in particular means that in order to fish from a beach on a regular enough basis to make a living, fishermen need to have their own boat. However, as I outlined in Section 6.3.3, the cost of having your own boat has become extortionate and learning from experience with someone is crucial (Section 6.3.1). Therefore, for those attempting to make a career in fishing there are several options – none of them easy – as the life histories of those who have entered a career in fishing following the non-hereditary pathway over the past 30 or 40 years revealed. Building up from a deckhand to a skipper-owner is the most common one. A Sheringham skipper, Will now retired and with no family history of fishing, recounted his own experience of progressing to the status of skipper-owner:

I was never hardly at school. I was always on the beach, alright. When I left school I went and done a bit of other work, and [then] the opportunity arose that I could go to sea ... In them days there was either two brothers and a father in the boat or what we called a paid hand. And [jobs] were very hard [to find] because obviously ... unless one died you wouldn't get in the boat. And when I first started we had roughly round about 14 crab boats going from Sheringham with a minimum of two people in a boat. I joined the lifeboat crew because that was obviously an excellent thing to do when you was a fisherman. [Then] one of the old boys was going to finish and I bought his crab pot gear and I went as a full-time fisherman. And, of course, it just grew from there. But before that, I was a paid hand

This extract also highlights that opportunities even forty years ago were limited for those without a fishing background. One of the strategies fishermen have to build their way up is to buy their own gear as they earn. Ben had been working as a deckhand on a Wells boat for a few seasons and was saving up. He had invested £2,500 in purchasing crab pots and was planning to save up for more. Having his own gear meant that he could start earning extra money on top of his pay as a deckhand, as anything caught with his pots would be sold in his name by his boss. At the same time, buying his own gear shows commitment in his future and the plan one day to have his own boat or buy his skipper's boat. He was intent on buying all he needed rather than taking out loans which was considered a risky strategy:

People that buy boats nowadays, they take out big loans to get them. Obviously they've got to work hard to pay off those loans. I don't want to be doing it with that over my head, because obviously if I'm new to the job [of being skipper-owner] and I don't go and catch as much as the others ... then I'm going to have bailiffs and God knows what after me. Hopefully, if [my boss] does say 'Oh, you can take my boat' he might let me pay for it as I earn. So when I save up, then [I can] pay him off or something like that.

Working part-time

Earnings from fishing are notoriously unreliable. In the Cromer Crab fishery, income varies from year to year according to season which lasts on average from March to October, meaning a fishing household may have to cope for months without revenue from fishing. With a family to support and a mortgage to be repaid, some fishermen may choose to fish part-time, and combine fishing with another job. Examples include working away for a few weeks offshore for wind energy companies or working part of the day in construction or for the post office. Tim said he would advise someone trying to work in the fishery to get another trade: “Plumbing or as an electrician. Then he could go to sea and if he need something to do in the winter he could do that, can't he? If you've got a backup job you can turn to it now and again and things get better the next year”. As I explained in Chapter Five, fishing part-time is not just a way of reducing risk but can also be part of a business strategy.

For some fishermen, going to sea is also a means of increasing earnings and building up savings necessary to eventually work full-time fishing. This strategy tends to be more common among older recruits with some capital saved up but with dependents to support. As Ota and Just (2005) also noted in Kent, the extent to which this strategy of part-time fishing leads to a full-time transition into fishing is questionable. Furthermore, I discussed in Chapter Five how part-time fishing was viewed by other fishermen working full-time. Working as a part-time fisherman may mean not being fully accepted by other fishermen and result in some potential difficulties in terms of finding customers to sell their catch to.

Boat hopping

In order to broaden their experience young fishermen may opt to work on different boats whether from harbours or from the beach. Opportunities for employment are generally greater in the larger harbours, such as Wells-next-the-sea⁶⁴ which it represents a more dynamic labour market, with a greater number of young people working on crewed boats. As Howard from Wells Harbour:

The boats at Wells require a lot more crews than the beach boats. They come and go. I always refer to them like footballers in a football team. They just jump from boat to boat, the younger ones... And, eventually they are on the top boats that everybody wants to be on.

It is fairly common for new fishermen to work on different boats in general, whether in harbours or on the beach. I asked Alan, whose name had come up often in other fishermen’s stories of finding

⁶⁴ There are also two boats at Morston, near Blakeney but this is a small harbour and unlikely to attract more fishing boats in the future.

work, about his experiences taking on young people. He responded: “You know, that’s just who you can get at the time. Sometimes you got people who work with someone one year and someone else the next.” In particular, for someone new to fishing, learning from a range of different skippers is seen as a valuable experience. Jack told me: “Every boat you go with do everything differently so you learn ways of doing it but like some boats let me do different things. It just varies on what they want you to do.”

Learning to fish in Wells is very different to fishing from the beach. It is physically more demanding, ‘a young man’s game’ and at over £100,000 the chance of being able to afford to buy one of the larger crabbers is much more remote. This was clear when one Cromer fisherman said he would not encourage young fishermen to work from Wells. Given that fishing from Wells, can mean a high earning potential, I asked him why not.

Tom: “I suppose you could earn more money out of Wells. But then again you will be at sea longer”

Me: “But perhaps when you are younger...”

Tom: “I suppose simply that if you were going to start at Wells you would be thinking about buying a boat like that...which unless you earn a fortune you are never going to do it. If you think they are earning good money and you are earning a certain % of the catch... ‘I can see what they are earning, I want one of these’ but then you are talking about 60 to 70,000 pounds, so you would never do it. And a lot of those boats it cost £20-30,000 to get the licence.”

However, as many of the Cromer fishermen have fished from Wells in the past, I wondered about Wells’ role in training future fishermen in the region. One might expect a trajectory to develop in terms of new fishermen starting to fish in Wells and later in life moving to fish from a beach. Retirement age for Wells boats is around 50-55 years old whereas beach boat fishermen may continue to fish for as long as they physically can. For entrants from non-fishing backgrounds, therefore, one route to skipper-owner status possibly lies in learning to fish from a harbour such as Wells. Later in their career with years of experience and accumulated savings in the bank, they may move into the beach fishery with a boat of their own, continuing in a smaller scale of fishing for as long as they have the physical strength and the will to do so. However, the insecurity of working as crew and the length of time necessary to become a skipper-owner may lead to discouragement particularly as fishermen start families. As Johnsen and Vik (2013) also found, regular work hours and time with family were common reasons in decisions for leaving fishing.

Funded apprenticeship or courses

For those not from fishing families or without financial backing, there are a number of ways of getting mandatory certificates funded. In Section 6.4.1, reference was made to the financial hurdles immediately placed in the path of the would-be entrant in relation to mandatory certification prior to and during the first year of employment in fishing. In some instances, funding for training and gaining experience with fishermen may be available through volunteering for service in the RNLI. Recently, national concern over high levels of long-term youth unemployment in the economy at large has prompted formal attempts to improve basic skill levels and provide apprenticeship schemes that can lead into permanent employment. In the fisheries sector, government led apprenticeship schemes have focused on fish processing or aquaculture rather than the catching sector. In 2013 and 2014, the Prince's Trust ran a programme in North Norfolk called, 'Get into Fishing', co-funded with the FLAG to address this gap. The latter offers three-week courses to unemployed youth on mandatory training, food hygiene, engine maintenance and boat handling with rather less than a third of the time providing practical experience on board a boat. Thus, despite the best of intentions, the impact of such schemes on the recruitment of fishermen is slight, principally because they can do little to improve access to employment on a boat locally. The frustration felt by one of those attending the 'Get into Fishing' scheme was clear. When I spoke to Alistair, 20, some months after he had completed the programme, he said:

"[It] did help me get qualified you know, but that's the problem, because they give everyone qualifications to go and work in a boat, but none of them people have got work on a boat, so the Princes Trust have wasted all that money training them people, they've wasted it. You can say that they're qualified, but I could be qualified to be Prime minister but if I'm not Prime minister then it's a waste of time."

Alistair is also expressing a frustration of being given false hope and aspirations without the difficulties being communicated. Scepticism towards apprenticeships was also expressed by those already in the industry. Jim summed up the situation in this way:

This apprenticeship idea is a nice idea and you can teach them how not to sink or how to tie a knot, but you can't teach them [to fish]. The only way they would learn is to actually come to sea. We used to have the double ended crab boats which were bigger than the ones we use now. You can do it with two of you but [today] you have your 'slave hauler' [that] does the work of one man and everything is positioned and set up to work one handed. When [my son] does come to sea with me I find him things to do, but it's difficult to keep him interested for the whole trip.

Funded training programmes cannot guarantee entry into employment. They may be useful in providing a young person with no previous background in fishing with the opportunity to familiarise

themselves with some aspects of the occupation and to acquire basic entry level qualifications. Ultimately, strong determination is needed to succeed in what is now principally a vocational career choice. To a limited degree, they offer participants certain advantages, to the extent that a potential employer has the assurance that they have the minimum legal qualifications for working at sea. They are also a way for a young unemployed person with no fishing background to become familiar with this type of occupation and a way to gain the initial basic certificates required to pursue it if they wish to. The final problem, however, remains access to permanent employment, that is the lack of jobs within the local industry itself and the reluctance of local skippers to provide work experience in a fishery that is increasingly designed to operate with reduced crew sizes.

6.5 Conclusion

In analysing the recruitment of young people to the North Norfolk crab fishery, this chapter has shown that fishing is a highly specialized, highly skilled labour market with low turnover and high entry costs. The opportunities for new entrants are limited particularly for the beach boats which have now become single-handed to avoid paying for crew. On top of this, the requirements of being skipper-boat owner are higher today due to increased regulation and bureaucratization. I focused on how new fishermen can access the fishery for employment at three distinct stages of becoming a fisherman: *qualification*, involving a significant financial cost; *first time entry* into fishing employment, made more difficult by changes to fishing practice that have resulted in diminishing job opportunities; and, after gaining sufficient practical experience, the *acquisition of one's own boat*, that marks the culmination of becoming an independent fisherman. Funded programmes for training have attempted to facilitate recruitment at the first stage. However, the major pinch points in the recruitment process remain: entry into fishing employment and boat acquisition. Even after acquiring a boat, further hurdles are likely to need to be overcome, for example in accessing markets and developing a customer base.

Fishermen now have to work harder to earn a living by adding value to their catch. In addition, modern British society has changed in terms of increased social mobility or at least in terms of aspirations. Young people may now have more opportunities than their parents would have had, in terms of further education and social mobility. Contrary to suggestions in the literature that fishing is an occupation passed down from father to son, I found that today's fishermen are more open to giving their children the opportunity to follow other aspirations which they themselves did not have the possibility to do. Naturally, many fishermen were keen for the tradition of fishing to continue, however, knowing how hard being a fisherman is today, none of the fishermen would pressure their

children into fishing. New entrants may in fact be more likely to come from non-fishing families as I found when talking to the few young men pursuing fishing. However, what young people expect and look for in work and what is expected by society may also influence choosing fishing as a career. The emphasis on earning a good stable income which enables holidays to be planned, or a mortgage to be obtained was clear in my interviews with fishermen and young people on the Get Into Fishing programme. As Johnsen and Vik (2013) found in Norway many fishermen leave the industry due to financial reasons and are attracted to jobs in offshore sectors, which offer greater income security and regular hours.

In particular, this chapter highlights intergenerational issues of access, which impact on the social resilience of the fishery. Access is becoming more restricted through a lack of initial job opportunities, the rising costs of owning one's own boat, and difficulties in making a living from small-scale fishing. There are parallels between fishing and farming which suggest a wider crisis of youth employment in rural areas (Bjarnason and Thorlindsson, 2006) and a disinterest among young people in rural jobs. White (2012) highlights the government's neglect of small-scale rural sectors and infrastructure, the deskilling of rural youth, and the problems the rural young face in gaining access to livelihood assets, controlled by intergenerational transfer. However, when looking at the issue of recruitment and the continuity in this fishery, attention must be paid to demographic factors and dynamics within the region. The small number of young fishermen in the region tend to work on harbours from Wells, King's Lynn or Lowestoft and the possibility exists that these fishermen will later take up opportunities on beach boats as they become older. Similarly, it is possible that the high number of part-time fishermen in Great Yarmouth and elsewhere may take up opportunities in the beach fishery if they became available and economically attractive. If maintaining small-scale fisheries is a policy objective, then ensuring recruitment is crucial to building future resilience which I reflect on further in the Conclusion Chapter. Given that the future prospects for this fishery appears to be limited, the next chapter focuses on what the implications of this would be for places such as Cromer which has a historical and cultural connection with fishing.

Chapter 7: Symbols of resilience: Place meanings and contestations over 'fishing' as part of a place's identity.

7.1 Introduction

Cromer and Sheringham are both known for their crab and lobster fisheries over which there is a history of deep-seated rivalry, perhaps an indication of the pride and strength of town identity linked to fishing. In this chapter, I investigate the role of fishing in the collective identity of the coastal community of Cromer. Although I focus on the coastal town of Cromer, I also draw some comparisons with its neighbouring town, Sheringham. The main questions in this chapter, which I answer drawing on questionnaires with residents and visitors and interviews with fishermen is, "What role does fishing play in the construction of place identity by different people living and regularly visiting coastal fishing towns? and 'How have with relationships to place in the Cromer fishing community changed over time?'

In order to explore the place meanings and understandings of residents and visitors, I start by asking what kind of places Cromer and Sheringham are (Section 7.2). I characterise 'the place' and its identity (Section 7.2) before exploring what fishing represents to those who live and visit the town regularly. I discuss relationship to place and fishing in the context of other place characteristics recognising that places have multiple place identities. Using different means of investigation from the questionnaire, I explore the values and meanings which were attributed to place by residents and visitors. I focus on how participants described their place, what particular places were considered important to them, and what these symbolised (Section 7.3). Finally, I highlight some of the contestations over the identity of place, particularly the continuation of fishing in the context of change and competing interests (Sections 7.4 and 7.5). I end the chapter by discussing the perceptions the coastal community has towards change (Section 7.6) and drawing conclusions on what fishing represents in Cromer or Sheringham and what it means for their development, local people's place identity and resilience (Section 7.7).

7.2 Constructing Place: what kind of place is this?

Cromer is mostly identified by visitors and residents as a Victorian seaside town, particularly in relation to some of its iconic features such as the pier, the promenade, and some of the hotels and houses which would have been built to host visitors in the late 1800s to early 1900s. It is also a place

associated with crab fishing and in particular its 'Cromer Crab'. Sheringham is also considered to have an 'old fashioned character'. Sheringham is firstly identified through its seafront and beach and secondly as a town with 'independent shops' which was an important part of the town's identity. This may be due to the design of the town. In Sheringham, the high street is particularly prominent compared to Cromer. It runs through directly in one straight line from the train station down to the beach and seafront.

In terms of the kind of place it was to live in, many people compared Cromer to other places where there is not much for young people to do, and places that attract families and the elderly. Cromer residents and visitors generally described it as 'not that wealthy', a 'real place' that 'does not make a splash' and that has not changed. Generally, people did not want to see it become more upmarket as other Norfolk coastal towns have. Cromer was discussed by residents and visitors in generally positive terms, which tends to encourage a high level of place attachment. It was described as a friendly, family place, which was cheerful and fun; laid-back, quiet, sedate; quaint, beautiful, pretty or picturesque, safe and traditional or old fashioned. The picture was very similar in Sheringham but, 'community' was mentioned more frequently in Sheringham (see Table 7.1). Many of the places people valued, identified through open questions, included everyday places around the town and iconic places including the seaside. Using postcards, which I had pre-selected (Figure 7.1), respondents expressed nostalgia over Victorian holiday-makers flocking to Cromer on the train, the pier, the Hotel de Paris which were built in Victorian times, and of the crab industry which grew at this time – all of which represent and reinforce an idea of stability, continuity and the absence of change.

Table 7.1 Summary of questionnaire responses to question 7 and 8 asking respondents to think of places they enjoyed being in within the town and asking for words they associate with the town. These have been split into particular places mentioned and descriptive words used.

Cromer		Sheringham	
Particular places people enjoy being in within the town	Words which come into mind when thinking of the town	Particular places people enjoy being in within the town	Words which come into mind when thinking of the town
beach (47) pier (41) seafront, promenade (24) local pubs (20) home, flat (17) cafes (12) shops (10) church (9) cliffs or cliff top walk (7) lighthouse (7) cinema (5)	<u>Descriptive:</u> friendly, welcoming (25), quiet, laid-back, relaxing, calming, peaceful, slow (24); crab(s) / crab fishing (18), tourists, holiday-makers, holidays, seasonal (15) cheerful, enjoyable, fun, happy, vibrant, colourful (12); quaint, beautiful, pretty or picturesque (13), nice, lovely (11), steady, traditional, old fashioned, consistent, timeless (11), family (9), busy, hustle and bustle, overcrowded (8) safe (7), small, little (7) <u>Places:</u> the pier (21), the beach (19), town (12) seaside, seafront, promenade (12) church (8) home (6) shops (6)	beach (22) seafront (18) shops (15) steam railway station (15) town (8) pubs (7) theatre (7) home (7) cliff (5) sheringham park (5) workplace (5)	<u>Descriptive:</u> friendly (23), quiet, peaceful, relaxed, tranquil (17), quaint, cute, nice pleasant, beautiful, pretty (15) safe easy convenient comfortable (10) traditional, old fashioned (10) community (9) tourists, holidays, tourism (9) retired, elderly (7) busy and noisy (7) independent, individual, unique (6) <u>Places:</u> seafront (10) beach (9) shops (9) town (9) steam railway train (8) home (4)

Cromer



Sheringham



Figure 7.1 Top three cards selected by residents and visitors of Cromer and of Sheringham as the most representative of the place by all participants. Cromer: From left to right: local crab boats with the old lifeboat house behind, the nearby cafes and Victorian architecture along the gangway (residents: n=21, visitors: n=11); the beach in the winter, with few visitors (total=29) the pier and the arcades over the summer (total=20). Sheringham: the beach in the autumn, the crab boats on the slipway with the lifeboat and fisherman's heritage museum; the high street in the summer leading down to the beach

7.2.1 Physical and temporal constructions of place

Natural physical features, such as the long sandy beach and cliffs, have an important role in shaping people's place identity and attachment (Stedman, 2003). The pier, promenade and clifftop walk were frequently mentioned in questionnaires and allow both residents and visitors to experience the coastline. In Cromer, the beach and pier were mentioned the most as places people enjoyed being in, and were the *most* important personally to respondents. The presence of cliffs, a pier, a beach but no quay were what distinguished it most from other places along the coast. The built environment and the structure of a place can shape people's place identity by influencing how people can interact with each other. For example, in many coastal places, the presence of a harbour is the focal point of a town (Williams, 2014) where fishing activity can be readily observed at different times of day depending on the tides.

This temporal dimension is also important for shaping place identity (Low and Altman, 1992). Places change during a single day, over a week, and between seasons. The identity and function of Cromer beach rapidly changes throughout a single day. I often observed how fishermen and holiday-makers co-exist, although mostly separately in time. At sunrise, the beach is completely still and calm apart from the sound of rolling waves and the sound of a few fishermen quietly greeting each other before getting themselves ready for sea. The tractors start up one by one, releasing a cloud of smoke up against the changing sky. Once the boats have headed out to sea, only their tractors and trailers are left sprawled across the beach. As the boats come in, visitors and locals watch with interest. By midday, fishermen have long landed their catch and left the beach, and holiday-makers can be seen making use of the shade afforded by the boats for a picnic or using a bucket as a stool for dusting the sand off their feet.

Another temporal dimension to place is the seasonality that tourism brings in the summer with the influx of visitors which influences how residents relate to their town. Notably, residents spoke about taking long walks on the beach in the winter time rather than the summer. Cromer being a quiet, relaxing place in the winter time was often contrasted with the busy summer tourist season. Fishing villages including Weybourne, Morston and Brancaster in Norfolk now have 50% of their homes in second ownership (Norfolk Coast Partnership, 2013) which was often mentioned by fishermen and residents. In particular, the proportion of second homes in North Norfolk (ranked 5th highest

nationally in 2011⁶⁵) means that at some times of year, the town is very quiet (Norfolk Coast Partnership, 2013).

One of the characteristics of Cromer mentioned by residents and visitors is that it is considered 'timeless'. Several respondents said it would have looked similar several decades ago and they did not expect it to change in the future. This was also the response from many fishermen, at least at first, as I explained in Chapter Five. There is a sense of the place changing day to day, following a natural rhythm but the place or the essence of it remaining constant. I return to how people perceived change in Section 7.6. Next, the constructions of place meanings related to fishing are explored.

⁶⁵ ONS, 2011. Census Data.



Figure 7.2 Representations of fishing in Cromer. From left to right, top to bottom: a poster of the annual crab and lobster festival, village signs representing crab and fishing; crab used as a symbol and in a political campaign in 2012 to stop the relocation of a processing factory; and for the Chamber of Commerce; a café using crab to attract customers, chocolate crabs and smiley crabs sold in the town; a crab wall painting in a car park; one of the local fishermen selling crab from a stall in the town. Photos by author, 2014



Figure 7.3 Representations of fishing in Sheringham. From left to right: from the fishermen's heritage centre at the top of the slipway, (top right) recent mural representing fishing history and the youngest crab fisherman in 2010, (bottom right) art trail commissioned by Sheringham in 2004. Photos by author, 2013.

7.3 Construction of Place. 'Fishing' as part of a Place's Identity

The different ways in which meanings and understandings of the fishery are constructed by residents and visitors are through experiences in places such as the beach where the boats launch from, walking along the seafront and observing other signs of fishing activity in the town such as seafood shops. There are five fish shops run by fishermen in Cromer and three in Sheringham, at least one of which has been there for 100 years. Even those respondents who did not eat seafood were familiar with local seafood shops and could usually name them. Local residents in Cromer had a higher awareness of the fishing industry than in Sheringham in terms of knowing where to buy local seafood (95% versus 85%) and in having seen fishing boats active (92% versus 74%) (Table 2.6a in Appendix). One of the retired fishermen Joe, reflected on how it is more difficult for the general public to look inside the crab boats today because of their shape and position on the beach:

Years ago when I was a boy, the boat [...] wasn't on a trailer... If you stood against it you could look into it because the boat was lower. People used to come and ask about this and that. They watched you pack [the crabs] into baskets in those days... They were like flies around a jam jar! When you wanted to get out of the crab boat you had to ask them to get out the way because they didn't want to miss nothing! But today that isn't so easy for them to see into the boat... so they stand on the prom. More people look in the truck than the boat today!

This quote suggests that today people tend to observe fishermen from a distance. In addition to experiencing and observing fishing activity today, Cromer and Sheringham, have a high level of heritage associated with fishing which likely contribute to a local fishing identity. As work by Nadel Klein (2000) in Scotland or Brookfield *et al.*, 2005 in England has found, museums or local events celebrating fishing heritage can enable a fishing identity to persist after a fishing industry declines or ceases. In Cromer and Sheringham, the locations from which the boats go out are also the sites for fishing or lifeboat heritage museums. In Sheringham, a mural along the seafront retraces the history of the fishing community in Sheringham up till today (see Figure 7.3). In Cromer, the symbol of crab linked to the town is used more actively than in Sheringham, as the symbol for the Chambre of Commerce, by small businesses such as cafes as well as in political campaigns (see Figure 7.2).

When presented with postcards of the town, the one picture of crab boats out of 16 images, was selected the most frequently, particularly by residents in Cromer, followed by the pier and beach (Figure 7.1). However, fishing boats did not immediately come to residents and visitor's minds when I asked open questions about particular places they enjoyed being in. This indicates that the

meanings associated with the presence of fishing boats may be associated with some public notion of place identity rather than a personal one. While the fishing boats seemed to be an important part of a collectively perceived identity of place, other places in the town have more significance at an individual, personal level. The beach, the pier or the shops, where people tend to socialise and meet others, feature more prominently as places people 'enjoy being'. In another open question seeking free word associations with the town of Cromer, 'crab' and 'crab fishing' were the fourth most commonly mentioned. This indicates that crab has become symbolic of Cromer and perhaps in some cases synonymous with it. Some residents raised concerns over the absence of young people entering the fishery and that the fishermen are not making a good enough living. In Cromer, residents and visitors thought that fishing would decline but still be present in the town (n=6, 8%). One Cromer resident, commented "It's a dying occupation but, there will probably still be a crab fishery even if is just artificial. Hopefully any changes will not affect the essence of the 'small fishing town' of Cromer" (CR, 12).

In Sheringham, residents and visitors' impressions had similar impressions but more commented that most of the fishermen had retired, comparing it to Cromer where the industry perceived as larger (25% of responses). Perhaps this was reflective of the greater decline in fishing which has occurred in Sheringham. Many more also commented on the heritage aspect of the fishery "What's left of it is a reminder of history." (SR06). In Sheringham, the card of crab boats was frequently selected, as in Cromer. However, it was in second place after the beach card and before the high street (Figure 7.2) and no words linked to crab or fishing were brought up by respondents in the word association question. It seems that in Sheringham, the town's fishing identity and heritage is still important (second most popular image selected), people do not tend to freely associate Sheringham with fishing as they do in Cromer. However, there is arguably a comparatively greater amount of commissioned artwork representing its fishing history in Sheringham than in Cromer which may help to retain some level of fishing identity. How fishing is represented in particular places helps to construct a fishing identity. However, while this can offer some indication of the relationship between place and fishing, it does not tell us about how people in these towns perceive or value fishing.

7.3.1 Perceived contributions from fishing to the town

While the awareness of the local fishing industry was relatively high, particularly among Cromer residents, (Table 2.6a, Appendix), the way in which different residents and visitors valued this activity was more nuanced. When asking residents and visitors about their perceptions of the local

fishing industry it emerged that fishing was perceived as a traditional and cultural activity, with an important role in the local economy. I discuss the cultural and economic value in this section, and in 7.4 I discuss some of the ways in which identity is being contested within place. In 7.5, I explore the relationships between the fishermen and others in the community.

Fishing is considered to be a traditional activity that has not changed (mentioned by a third of respondents). A male resident, aged 40-44 who had lived in Cromer for over 21 years, described the fishery as “small, strong, traditional, sustainable” (CR14) while a female resident, aged 45-49 who has lived in Cromer most of her life, commented that fishermen “use tractors, mostly old things, even with all the technology we have. Things change, but not the essence of it. It is still local” (CR24). Another third of respondents, mentioned the fisheries’ role in the local economy. For instance, a 20 to 24-year-old female who visits Cromer from Norwich on a weekly basis said “It’s a big deal in Cromer, a source of pride and income for the town” (CV72). Tourism was often attributed to the presence of the fishery saying it ‘draws people in’ and that everyone has heard of Cromer crab. Another said “it’s what makes Cromer traditional, it’s part of its charm (CR24)”. Visitors also expressed hope that it would survive, including a male second home owner, of over 65 years of age, who said that it was “Important to keep it up and hopefully it is passed on. It’s part of Cromer. It’s a distinct feature” (CV42). The fishermen were also aware of the role they play in the town’s ‘traditional’ identity and its role in tourism. “*We are the traditional side* and the tourist attraction. A major reason why people come to the Norfolk coast.” stated Jim, from Cromer. The link between fishing and tourism dates back to when the railways developed in Cromer (Stibbons *et al.*, 1983). This opened up the town to visitors but also to trade routes to London. Helen said:

Cromer has developed through the fishing but also through the visitors who came to see the fishing and the fishing has continued because of the visitors. So there is a lot of interaction. People do come down to look at the boats....they sit in the cafe and watch a fisherman.

Stan also agreed and emphasised how fishing contributes to the local economy:

People come here and they have to have a Cromer crab, a baguette or a salad or something. These boats bring a lot of money into this town. Just from my boat, the shop employs three people full time and several part time. And there’s a knock on effect to all the restaurants and cafes. Especially now that people are more aware of where their food comes from. It’s a major product supplied here so they have to employ people there.

Unfortunately, there are no official figures or studies that have been carried out to date to value the contribution of fishing to the local economy, which is primarily for a local market within the East of

England. In addition to its role in the local economy, residents and visitors expressed how essential the fishery was culturally to Cromer. Two female residents aged 60-64y said: "Cromer is crab", and that the fishery "gives Cromer an identity" and is the "backbone of Cromer" (CR08, CR20). This highlights the tradition and local culture that fishing represents which is "steeped in history because of the crab trade" (CV62, female, 25-29y, who commutes daily for work to Cromer from surrounding area). However, despite the ways in which the crab fishery is valued by visitors and residents, I came across several telling examples in my case study of contestation between different groups over place and what these represent.

7.4 A threatened identity?

7.4.1 Globalisation and external influences on coastal development

There was a sense that the tradition of crab fishing and the identity it gave to the town was being threatened. Many perceived that because the relocation of a local factory, following a takeover by the multi-national Young's, to Grimsby in the North of England in 2012, meant the fishery must be struggling. Several commented that multi-nationals threaten small industries and wondered whether the crab would be re-named 'Grimsby crab' reflecting some of the feeling towards increasingly globalized markets and a loss of local identity. However, one of the fishermen told me how "Most people thought that when the Cromer crab factory shut down that was the end of the Cromer crab" and that his customers had asked him: 'Where are you going to sell your crab now?' to which he responded, "Well, same place as before! They [the factory] hadn't been buying crab off the fishermen for years!" This misconception of the local importance of this factory to the local economy and to the fishermen may have been partly due to a political party which used the factory closure as a campaigning opportunity (see Figure 7.2). This shows how place meanings can be used by different actors for their own ends and how media coverage influences public perception. However, some respondents were aware that a new factory was opening and that the factory closure had not significantly impacted the Cromer fishermen who had long stopped dealing with the factory.

A female resident who retired in Cromer 15-20 years ago said "They need support or we will lose local fishermen, it's their livelihood. We need to buy their crab" (CR08), indicating that local residents have a sense that this activity and what it represents is under threat and it needs to be defended.

Many changes that have occurred and seem to be altering the link between fishing and place, or threatening to do so, are outside of people's control. For instance, to some extent the wind energy sector is replacing fishing at a regional level with the largest ports, Lowestoft and Great Yarmouth being converted into offices and facilities for wind farm boats and helicopters. In Sheringham, a number of ex- and part-time fishermen work on wind farm boats for Sheringham Shoal, completed in 2012, which can be seen on a clear day from the shore. In the Sheringham lifeboat and fishing museum, a room upstairs offers a view point of the windfarm and a poster titled "Offshore wind heralds a new era" boldly states: "The same strong winds that once pushed the sails of fishing boats, now push the blades of wind turbines to generate electricity" (Figure 7.4).



Figure 7.4 Poster from exhibition on offshore windfarms at a museum in Sheringham, the Mo, which presents the history of fishermen and lifeboats in the town. Photo by author 2013.

7.4.2 Competing interests, activities and values

Another example, which shows the perceived importance of preserving Cromer's fishing identity, manifested itself through arguments over boundaries between the fishermen and other resource users including divers, surfers and dog walkers. Surfers try to catch waves in the part of the beach where the boats come in, despite the obvious safety issue of being hit by a boat. Speaking to some of the fishermen, there were many examples of what kind of activities and behaviours were acceptable around their boats. Fishermen frequently mentioned the 'dog walkers' saying 'It's not the dogs I have a problem with, it's their owners!' (Nick, Cromer). It seems common for fishermen to find dog fouling has gone on just beside their boat. Although some of the fishermen told me 'no-one owns the ocean', they exert a claim over part of the beach, promenade and parts of the sea. Fishermen are constantly having to reassert this place as theirs and as a working fishing beach.

Another example is the surf school that was set up in 2007. Even though the area has been known as a surf spot since the 1970s (a memorial to 'lost at sea' surfers can be found at East Runton, the next village along from Cromer), surfing is perceived as a relatively new activity. Other tensions are indicated by a petition over the use of bicycles on the seafront (Eastern Daily Press, 2013c) and a 30-year campaign for the development of a skate park (Eastern Daily Press, 2015a). This and other contestations over the use of the beach and seafront, indicate differences in how Cromer is perceived between those who wish to preserve a traditional seaside Victorian town (e.g. Cromer Preservation Society) and those who wish to see it develop as a place for young people.

Over the last few years, an increased number of divers have been attracted to the area following the work of an NGO, SeaSearch, which led to several TV programmes including one called "Britain's Great Reef" on BBC, claiming it was the longest chalk reef in Europe. It was claimed that this habitat – now described by Natural England as a chalk bed rather than a reef - was being damaged by crab pots and needed protection (BBC News, 2011). However, fishermen argue that they have traditionally fished the chalk bed for generations and that their methods are environmentally responsible. A recent study by Marine Planning Consultants (MPC), commissioned by the FLAG to assess the potential impacts of fishing gear on habitats of conservation interest, was inconclusive citing significant gaps in understanding (MPC, 2015). The fishermen have publicly opposed the proposed designation with much support from local residents, as they fear regulation could be introduced in the future to stop them fishing on the chalk bed. I discuss this in more depth in the next chapter.

The examples given here demonstrate that a fishing identity of place is being constantly negotiated, between newcomers and locals, between fishermen and local government or with other coastal resource users. The continuity of fishing as one part of the identity of place is tested and contested and is actively maintained by those who value it.

7.5 Relationships in place: fishermen and the coastal community

7.5.1 Interactions between fishermen and visitors or residents

Relationships between fishermen, the local residents and visitors tend to be mixed. Fishermen were admired and perceived to be "traditional, local people, working hard for the benefit of others" (CR31, female, 60-64y) 'good guys making a living' (CR05, male, 30-34y), running businesses which were passed down through families (CR34, female, 40-44y). However, despite this, others alluded to

conflicts between fishermen and other resource users such as surfers, saying 'they [fishermen] think they own the ocean'. When the fishermen talked about tourists they often expressed some irritation even if they recognized that they are their main customers. Often these stories were told with humour, reflecting the mixed interactions fishermen have with the public. My own first experience of coming down to the beach when the boats were coming in was one of feeling like an outsider. Not knowing where to stand or how to engage, worried about getting in the way or being awkward. As I became used to seeing the boats coming in, and got to know some of the fishermen, they would greet me as they did with many others who regularly come to the prom and wait for the boats to come back. People would stand around chatting to the fishermen as they unloaded their boxes. Other convivial behaviour could also be observed in the two beachside cafes in Cromer where several of the fishermen are in the habit of having a cup of tea or snack after they return from sea.

On the other hand, fishermen joke about being like zoo animals being observed by the tourists and make fun at some of the 'silly' questions they get asked. For instance, Rick said: "You get people from London coming down and they see a lobster and they ask you what that is and why isn't it red and things like that." On these occasions they either ignore the onlookers, respond with a joke or in some cases can be quite blunt. I was once talking to a fisherman in Cromer when a woman came up and interrupted us to ask 'Did you get those this morning?' 'Well, I didn't get them overnight, did I? Think about it!' he snapped. I later found out that this woman wanted to go for a trip out on a fishing boat. 'I doubt anyone will take her. Silly woman', he said. The interactions between fishermen and the public are therefore very mixed. In some cases, fishermen just want to get on with their work and not to be forced into interacting with people who they may perceive as having little understanding of what they do. At the same time, the fishermen take pride in the fact that people are interested in what they do and enjoy these interactions. Tom who sells his crab directly to customers from to the public a stall said:

I really enjoy it. I get to know them and they get to know you. They trust what you say because they are buying from a fisherman. You make sure what you sell them is good product. The interaction between you and the customer is very important.

As other studies have found (e.g. Urquhart and Acott, 2013b), visitors and locals often value their local fisheries, the experience of watching the boats coming in and eating locally caught seafood, which also contributes to sense of place. However, less reported, at least in the literature, are the stories of visitors or residents who do not share these values and complain about the boats being

smelly, noisy, looking messy. A Cromer fisherman Will told me this story, which was common along the coast:

People come here and love it. All the trammel nets on the beach. And they buy a holiday house overlooking the beach. But when the boats start up at 2am, they say "Ah we ought to ban that. Get rid of it!" Wells had it too. All these people from London bought up places on the quayside, and they want to do a cull on the seagulls! It's the same here. They say how idyllic it is with the boats and the tractors, buy a place and then they want to change it. They complained to the District Council and measured the decibels and all that. But the fishermen have rights on some beaches, going back to the Domesday book or whatever. If you take the boats away and Cromer is no more. Cromer is about crabs and fishing. If you sent the boats all away to Lowestoft, Cromer wouldn't be Cromer anymore.

These newcomers may value a different kind of place and identify the same place fishermen work their boats from as a peaceful and 'idyllic'. Limits on the noise from the tractors the fishermen use on the beach, started to be discussed after a Cromer councillor (who was not from the town) proposed measures some years ago. The outcry from the fishermen and local community was such that he had to resign. As Will notes there is an issue about who has a claim over the beach and its use. This indicates how the changing population in places can alter what a place represents and where place meanings can be contested resulting in place protective behaviour.

As I mentioned earlier (Section 7.3.1), one of the main words that residents associated with Sheringham was 'community'. A sense of community was very important to many of the fishermen and local residents. One of the older fishermen, Donald originally from Sheringham, was talking about the fishing industry by explaining how the nature of 'community' has changed in Sheringham also:

What we had in my early days, was community. They didn't have a lot, life was hard, but they had community. That's what we haven't got today. [...] A lot of what's happened in a lot of the villages, and you may or may not have realised it, do you know what I'm saying? In recent years, all these Londoners have bought up all these second homes, pushed our own people out, they can't afford them. That's broke a lot of communities very quickly.

This and other similar quotes reflected perceived loss of community spirit and Donald links these changes to the decline of the fishing community. In the past, the resident community would have been made up more fishermen and the local economy was more insular. Looking through the Stibbons *et al.*, (1983) book which traces back the history of this fishery, many of the names which would have been fishing families are not present anymore. In places (such as Cromer) where

property prices have increased, fishermen have moved further out. Fishermen from other fishing places have joined existing groups (e.g. Cromer is now made up of fishermen who used to fish elsewhere). Going back several decades, fishermen used to live where they worked and socialise together in local pubs. Whereas in the past fishermen would have worked together, lived close to each other and often been related, today fewer fishermen are now from traditional fishing families. Those that are from the more traditional fishing families are in fact related, through a cousin, a great uncle or their mother. As Alan reflected:

Years ago, Cromer was all to do with the fishing. We used to know most of the people. People were connected with the local trade but now people come from away. Before that was local people. And the money seemed to stay in the town, you'd spend your money and that never move. It would go around! But it's changed altogether.

One of the main issues (as the first quote in this section alludes to) is the increasing number of second homes in Cromer which has been increasing, even if it is not as high as other parts of Norfolk. According to the 2011 census, there were 7939 second homes in North Norfolk. This represented 78 per 1,000 residents, 48 of whom used their 2nd home for holiday purposes, which represented the 4th highest proportion of second homes in England in 2012 (The Guardian, 2012). This also reflects a wealth divide between those buying second homes and the local residents who have lived in Cromer for generations. As Bob told me:

There's a lot of second homes in Cromer now and obviously a lot of people just come down here for the summer holidays, Easter and perhaps Christmas and they'll walk along the cliff top and along the promenade but they haven't got a clue about the industries sitting on the beach, well the majority of them anyway. Perhaps they should be drawn into the community a bit more. I don't like to see all these second homes sitting about. You walk through Cromer during the winter time and so many houses are shuttered up and the curtains are drawn and you know there's no lights on, there's no one in them. All painted up spick and span whereas years ago local people perhaps didn't have the money to perhaps keep their houses painted up, you know that's how I look at it anyway.

This last quote not only shows how the place could change between seasons but also the wealth divide between the local residents and those who have bought holiday homes which has broken up the community. Many of the fishermen's cottages in Cromer, Sheringham and villages in between have been sold off and are now either holiday lets or second homes. Out of the nine cottages in Cromer, only one still belongs to a fishing family, which is used as a crab shop. Another fisherman (Tim in a nearby village, Overstrand) had similar reflections:

When I was a boy up on the playing field here, there was kids everywhere, you know in the evenings playing football and you go on there now is no one. But that's what's ruined it, that is. They're all second homes, people just come along with loads of money and buy them as holiday homes. The village is desolate in the winter.

The loss of community and replacement of 'local people' with 'newcomers' was discussed as having an impact on place meanings, as the examples show. The same trend exists in Sheringham and surrounding villages, as in other parts of the country such as Cornwall (Martindale, 2014).

7.5.2 Tensions between fishermen and the local government

Other tensions were exposed between the local government and the fishermen. When I asked one of the Cromer fishermen whether there was somewhere to keep gear on the beach or if they could just leave it there, David answered:

Well it is like all these things... The council tell you, you can't do that and this but when you've been there for a while they have a job to move you on. There was an issue about parking, and the boats and all that stuff. But we can go back in history in the town and there have always been boats there, perhaps grandfather rights or whatever but they would have a job to stop you and I know the townfolk would back you.

Carl felt that the crab fishery was not sufficiently recognized by local government. He said:

They aren't local people and they don't see the value of a dozen boats on the beach. [...] What would bring more people here would be more fishing gear about here, being made here. Stuff they can look at. They can watch you stitching a pot, cutting ropes, coiling ropes, making dhands. All the sorts of things fishermen do but they do it hid up in sheds miles away. If we had somewhere we could do it down here, we would, wouldn't we?

In a nearby village to Cromer, Overstrand one of the fishermen, Tim, explained how the fishermen had been at risk of losing what is known as the 'Fishermen's Green', where boats are kept and which has always been considered to belong to the fishermen.

You get like the council, now I don't think they're local, you know what I call a local, they live in the village yeh but they aren't. I call people locals that have been here all their lives. And they've been trying to get you know where the boats are on that green, they've been trying for years to get that off us, off the fishermen.

Implicit in the last two quotes is a sense of having to actively maintain claims over the places fishermen work from, to make sure that their identity which serves to maintain continuity in their

activity is not subsumed by another. There are no facilities explicitly for fishermen at Cromer such as a fishermen's shed to store equipment, work from or socialize. In Sheringham, where the fisherman's shed is now a heritage centre, one of the retired fishermen told me how he wishes he would have recorded some of the banter that took place there, which are now just memories. These places are important for interacting with others, for particular practices to occur in and to indicate to others that this is their place of work (Proshansky *et al.*, 1983). The quotes show that fishermen are feeling that their right to occupy and use places they fish from has been questioned. Place not only has a material and political valence, but can be used to claim use of resources attached to place, through identifying with place or presenting a particular social identity (Massey, 1994; Manzo, 2003).

7.6 Perceptions of change: moving forward or standing still?

As mentioned in 7.3.1, imagining change was difficult for most residents and visitors. The majority of Cromer respondents (64%) expressed the belief that nothing would change much over the next 10 years. The permanent nature of the Victorian buildings and the pier were often referred to to illustrate this point with the only conceivable change being some restoration work (36% of respondents). Some commented that 10 years is not a long time for Norfolk, that nothing much has changed in the past decade and hoped that nothing would change. The coastline was expected by some to change due to coastal erosion and sea level rise (14%) although a couple of respondents used the beach to illustrate permanence and stability. This is interesting because Cromer could arguably be considered to have undergone significant change over the last few decades. The pier, which many could not imagine Cromer without has had to be restored several times. The fishing boats have changed in terms of their appearance and construction over the last one to two decades from large wooden crab boats to small fibreglass boats and a modern catamaran. Even the beaches have changed following erosion and storm surges. A third of respondents commented on social change and Cromer's population (32%) remarking that "Cromer people are set in their ways, don't like improvements" (CR08, female, 60-64y) and expressed concern that this could stop progress: 'Always resistance, people don't change. I worry of the result. Life is not about standing still'. (CR21 male, 30-34y). There was some suggestion that Cromer was an aging town (8% of respondents), "There are 4 or 5 cemeteries, 7 retirement homes. This is where people come to retire." (CR28 female, 20-24y) "Everything tends to need to fit in. Youth is ignored- not seen or heard." (CR24, female, 45-49y).

This indicates a resistance or a reluctance towards change. However, perhaps the word 'change' itself is rather abstract. People have an imagination of the future based on the past and think about it in concrete, material things. Particularly for regular and returning visitors, there is something comforting about Cromer and Sheringham not changing, remaining timeless while other places around them are developing quickly. One example of this is the ongoing battle these towns have been fighting against supermarkets establishing themselves. For instance, Sheringham resisted the construction of a large supermarket, called Tesco's, for 17 years to maintain its identity as a unique town filled with independent shops and businesses (Eastern Daily Press, 2013b). Fewer residents in Sheringham were as adamant as those in Cromer about there being no change in the town at all (10% of responses compared to 64% in Cromer). Concerns in Sheringham were expressed over the loss of independent shops (62%). As mentioned in 3.1, the independent shops were a big part of the town's identity. A male resident aged 40-44y said: "The town centre will change, no more independent shops. It will bring about a loss of independence. Tesco's will shut most things. Tesco will take the money in a big truck!" (SR40). Another female resident aged 20-24 commented "You see so many towns lose their identity" (SR34). Another resident and shopowner thought this would be resisted: "I don't think people would let it change- they won't let it lose its appeal – [that will be] a major factor of town survival" (SR36, male, 55-59y). A Sheringham resident (SR24, a 20-24 year old female) even linked a further decline in fishing boats directly to Tesco's. One Cromer fisherman, Tom, also related the introduction of supermarkets to a homogenization of the identity of places: "It's getting like a lot of towns, too many supermarkets. No real people anymore." Person-place bonds are perceived as becoming eroded by processes linked to capitalism, globalisation and increased mobility, potentially leading to what Relph (1976) cautioned against: 'placelessness' and the threat this poses for communities as they lose their meanings and identities. This example, as well as the example of the relocation of the crab processing factory, show how relationships to place are both stretching and shrinking (Scholte, 2000; Perkins and Thorns, 2012). Increasingly, people feel left behind, but they are increasingly aware of the connections that explain this, leaving them feeling powerless.

7.7 Conclusion

This chapter shows how place meanings are constructed by residents and regular visitors particularly in relation to fishing. Both Cromer and Sheringham have a communally held fishing identity, to a lesser or greater extent. In Cromer, the pier is an important distinctive part of its identity as is the symbol of crab, which still occupies an important presence in the town. In Sheringham the main identity of the town, once also known for its fishing fleet, is now one that is in part characterized by

independent shops. However, in both Cromer and Sheringham, the idea of maintaining a traditional and unique identity is contrasted with some of the processes which have been set in motion such as the establishment of supermarkets in Sheringham or the development of offshore windfarms. Often these are due to global or national influences which may be outside the control of local stakeholders such as fishermen. Fishing, as one part of Cromer's identity, is having to be defended by the fishermen themselves and by local people who have an attachment to fishing. In addition to these changes which are perceived as threatening Cromer and Sheringham's fishing identity, are significant social and demographic changes in the local population. An increasing number of retirement or second homes and holiday lets may be leading to a more dispersed local community. Finally, the increasing dominance of activities such as surfing, diving or even skateboarding mean that Cromer's identity as a 'fishing place' is perceived as being tested and contested.

While these broader changes are experienced, Cromer can be considered a place of stability and continuity where nothing much is perceived to have changed or is expected to change. This is what is important to those who live here and who come to visit. These types of characteristics are likely to encourage high levels of bonding with place and therefore could encourage collective action to adapt to or to resist and contest change. Related to this theme is resistance to change. Although Cromer and Sheringham change every day, and seasonally with tourism in the summer, overall, these places are considered to be stable and not changing over the years. Features that shape the town's identity are the pier, the beach and the crab fishery represent stability and tradition. I argue that the meanings attributed to the Cromer crab fishery, and the fishermen who work in it, as well as other aspects of the town, are indicative of resilience as resistance. The fishery is not perceived as just a product that serves the local economy but it is also valued for what it represents: survival in the face of globalization and economic development, a symbol of difference, independence, and a traditional identity. This might also encompass a resistance to globalisation symbolized by the arrival of a huge supermarket, and concern over the homogenisation of place leading to a sense of 'placelessness'. As other studies show, a person's place identity can be strengthened as place meanings become contested and a process of maintaining and defending place ensues (Harner, 2001). As Cochrane (1987) noted those who sometimes seem the least attached about a place can in fact be those who are the most rooted in place. Values and meanings associated with activities such as fishing may seem hidden and only surface when people's place identity is threatened (Relph, 1976). For instance, in Sheringham, perhaps the 17-year battle against a large supermarket has reinforced community sentiment and its identity as a town of independent shops. Similarly, in Cromer, campaigns which brought people together over the relocation of the local crab processing

factory reinforced the idea of Cromer being identified with crab and the need to support its fishermen.

A fishing identity is often part of a core public or communal identity of the town rather than an identity that individuals consider part of their personal relationship with place. This can explain why the crab fishery, its boats and their place on the beach was not mentioned in the 'places' people enjoyed being in, or considered personally important in Cromer or Sheringham. However, it was relatively frequent in words associated with Cromer and it was the most popular choice in the images people selected which represented their town, in both Cromer and Sheringham. So while people might associate more personal experiences with being on the beach, or going for a walk on the pier, the fishing boats and what they symbolise for the town is important. This is a key point because it indicates how research into the meaning fishing has to individuals as part of the place's public identity could be missed depending on how the question is asked. Its meaning to individual experiences of place can also be overemphasized if questions are asked solely about what fishing represents and not about other characteristics of place which may have more personal meanings. Fishing should therefore be understood as part of the coastal identity among other types of identities and values that are associated with a place. The identity of a place can be taken for granted, for instance by someone who has lived in the same place all their life.

Finally, this evidence suggests that caution needs to be exercised when researching place meanings and identity. Clearly, as some of the examples presented show there are divergent meanings and values associated with local fisheries, which have caused tensions to build up between people in the community. This raises questions about what people value about coastal places and the extent to which having active fishing boats is part of this or not. This then leads to the question of who is in the community and who has a stake in the direction a particular place goes in. Coastal places such as Cromer and Sheringham have become increasingly populated by pensioners who retire to the coast. Added to this, are the homes being sold off as second residences used only during the holidays. The consequences are a resident population which may not have a similar relationship to place or valuation of place to those who have lived in the town their whole lives. Those who are from the town have in fact moved out due to the rising house prices and their relationship is now as frequent visitors. So how is the new residents' perspective on the place they live in different or similar to locals who have lived there for generations and what implications does this have for the future of coastal fishing communities? Although collective responses to change can be encouraged through people's place identity and attachment, a resistance to change, which seeks to maintain a place's

identity in a static way in order to conserve stability, can hinder adaptation processes. This raises the relevance understanding social differences within a place, whose place meanings and whose values are privileged, particularly in debates concerning adaptation to change and social resilience. These are important questions for those involved in development and those leading processes where decisions are being made about the future of coastal towns in this context of change. In the next chapter, I will explore the governance processes for fisheries and the extent to which fishermen are involved in decisions which affect the future of their fishery and livelihood.

Chapter 8: Governance across scales and purposes. How and to what extent can inshore fishing communities shape their future?

8.1. Introduction

How issues and concerns of fishermen are addressed through governance will determine the extent to which the fishing community is able to shape its own future. As such the resilience and sustainability of the North Norfolk crab fishery is dependent on governance and the institutions that underpin this. In this chapter, I explore the extent to which fishermen have agency for addressing the concerns they have over the future of their livelihood in the face of external changes (identified in Chapter Four) using interview data from fishermen and individuals working for institutions involved in fisheries and marine governance. This is supplemented by observations from attending meetings, information extracted from institutional documents, reports and news articles. I start by discussing how fishermen view their role and the government's role in managing the resource and its future (Section 8.11).

The Marine and Coastal Act (2009) (MCAA) introduced a number of changes, notably provisions for increasing stakeholder participation in decision-making and for managing the marine environment while balancing socio-economic and ecological objective (DEFRA, 2011). The MCAA also reformed how marine licences can be granted for offshore developments, set up a legal framework for Marine Conservation Zones (MCZs) and introduced Inshore Fisheries and Conservation Authorities (IFCAs) to manage fisheries and marine conservation.

I explore the extent of fishermen's participation in governance using three examples related to the changes introduced by the MCAA. These are: the establishment of wind farms (8.2); the development of management measures by the IFCA and fishermen for the crab fishery (8.3); the consultation and designation of MCZs (8.4). I use a fourth case to explore fishermen's experiences in accessing financial support for building social resilience through the FLAG with funding from the EFF (8.5). In Section 8.6, I discuss common themes based on how governance works in practice in inshore fisheries. In particular, I ask how different visions and values (between groups locally and from local to national level) are dealt with through governance processes, before drawing final conclusions in Section 8.7.

8.1.1 Local fisheries institutions and perceptions of fishermen on their participation in governance

I identified three institutions which have the potential to shape the sustainable development and management of inshore fisheries at a local level in North Norfolk: the Inshore Fisheries and Conservation Authority (IFCA), the North Norfolk Fisheries Local Action Group (FLAG), and the North Norfolk Fishermen's Society (NNFS). Other institutions are not discussed in depth here but can also have a significant impact on the future of fishing communities. For example, each institution is shaped by governance processes and other institutions at national level and European level. These include private companies (marine energy, marine transport); civil society organisations (e.g. marine wildlife and conservation organisations); and the media as well as local residents and visitors.

It was apparent through my interviews using the governance relational landscape tool, that beach fishermen felt removed from policy-making processes. Relationships with family, other fishermen and the NNFS were the most important in coping with the day-to-day challenges they faced (discussed in Chapter Five). Most beach fishermen I spoke to saw the NNFS as being their principal ally and the most influential in making their voice heard. Nick, said:

That's why we're all in the Society you see. So we all work as one, as a group. Because if you are all individuals trying to fight someone like Natural England you don't have a lot of choice. We're always fighting with them now. With the Society, you have a stronger voice. We have had MPs come down here, like Norman Lamb to help fight against different things.

There was a feeling that little could be done to influence decisions that could have a significant impact on their livelihoods in the future. In particular, the influence of European and national level decisions on livelihoods was raised in every interview and fishermen generally perceived a lack of interaction with policy makers. As Nick put it: "If someone told me someone they were from DEFRA I'd take a picture of them.... [...] They are people I never see. They are just grey figures to me."

As Figure 8.1 shows, some Norfolk crab fishermen are extremely disillusioned with the government departments that govern them, particularly DEFRA and the MMO. When asked which relationships they most wanted to change, the most common answer was those with government.



Figure 8.1 Photo of a fisherman's van voicing discontent with government policies. Taken by Author at Wells next the sea in 2012.

In particular, older fishermen such as Carl, expressed a sense of stewardship and motivation to influence fisheries management and engage with policy development.

Carl: My life as a fisherman is coming to an end. But I still care about the sea and my grandchildren and so forth. It should be there for them what was there for me. And that is why I am getting more and more into the more political side of fishing. Going to all these various meetings. When fishermen start doing that then someone somewhere will start doing something.

Me: So you didn't used to be involved before?

Carl: No.... I was not interested at all in politics of fishing. You believed none of what you heard and half of what you saw. You were very sceptical over the so-called powers to be"

This quote indicates some issues in fisheries governance but also a sense of hope for the future and belief that change is possible. Another challenge to participation is that the level of mistrust towards government is high. In general, there has been a resistance from many of these fishermen to be involved in policy discussions, particularly with other interest groups or the government. As discussed in Chapter Five, fishermen are independent by their nature and Norfolk fishermen are particularly known for working on their own. Jim told me:

We've never worked together. Some places around the coast, fishermen form cooperatives for equipment and that sort of thing. Around here, we have never ever done that. In the 70s, when the beach was full of families. You had 4-5 boats manned by the Davies family, 3 boats owned by Harrison family but those brothers or cousins or whatever would buy everything independently. That's the way we are. So working through the FLAG is the closest we are going to get to that.

As Jim suggests, the FLAG, funded with European money, has the potential to help fishermen work together. Before coming back to the FLAG, I first explore how fishermen are involved in decision-making using three examples that relate more to the MCAA: the establishment of windfarms, MCZs and inshore fisheries governance.

8.2 Establishment of wind farms: competing for space in the sea

Over half of the UK's offshore energy development has been planned in the East of England⁶⁶, which has been strategically earmarked for wind energy (DEFRA, 2014, Figure 8.2). The growth in offshore wind energy over the last 5 years is due to the UK's commitment to carbon reduction targets⁶⁷ and to obtain 15% of its energy from renewable sources by 2020 (Renewable Energy Directive, 2009). The decision-making process involves energy companies bidding for the rights to develop the area, via a lease for a period of 20-25 years, which is granted by the Crown Estate. Commercial fishing activities are identified in the Environmental Statement of the energy company's Environmental Impact Assessment (EIA), prior to obtaining consent (e.g. Centrica, 2009). When a company applies for a marine licence and development consent order to build a windfarm, a consultation process is launched before going through Parliament. However, this is limited to statutory consultees, which include local authorities and public bodies such as the IFCA and the Environment Agency. Once approved and at the building stage, it is the responsibility of the company to ensure it compensates any affected stakeholders on land and at sea. For example, the energy company Scirca who developed Sheringham Shoal provided funds for coastal community projects including to the FLAG. There is currently no legal requirement to carry out a social impact assessment and EIAs in the UK do not presently consider the social distribution of impacts (Walker, 2010). A cognitive mapping exercise by CEFAS identified some of the concerns of the fishing industry towards offshore wind energy included issues such as mistrust and as undermining a traditional way of life (Mackinson *et al.*, 2006).

The main impact of windfarms on inshore fisheries is the displacement of fishing boats and was the main concern identified by Mackinson *et al.*, (2006) along with potential impacts on fish stocks. A second issue results from the compensation, which is paid to fishermen for disruption. Both contribute to increasing competition for resources, leading to social conflict between fishermen and have the potential to increase fishing effort in the inshore area.

⁶⁶ 16th EIFCA meeting 29 October 2014 Renewable Energy Development - Commercial Fishing Working Groups

⁶⁷ Reduction of at least 80% by the year 2050 in comparison to the 1990 baseline (Climate Change Act, 2008).

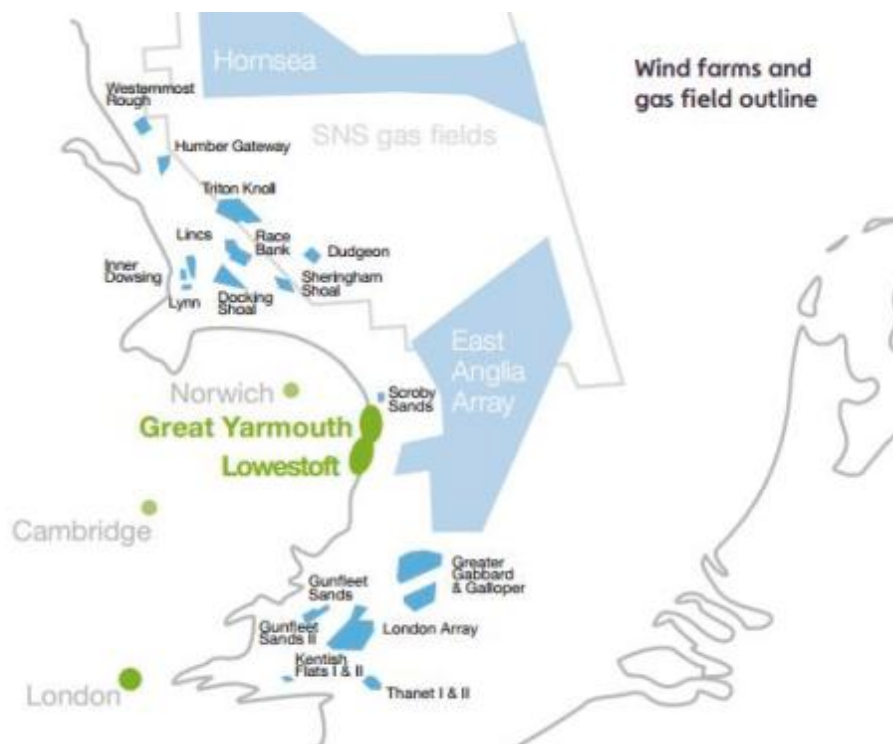


Figure 8.2 Map of planned and completed offshore windfarms in the East of England and the Wash. Source: OffshoreWINDbiz UK: East Anglia Becomes Hot Offshore Wind Topic. May 8, 2012. <http://www.offshorewind.biz/>.

8.2.1 Displacement effects

Many of the offshore wind farms in the East coincide with fishermen’s fishing grounds. However, Bob explained that the issue is not only the loss of fishing grounds but also the indirect impacts of displaced fishing activity:

We have been arguing that ok you want windfarms but you are displacing people all the time. Now we got 88 [turbines] off Sheringham. That is not personally a piece of ground I would fish but, that has forced the Blakeney and Wells boats elsewhere. They have to go somewhere else because they are not going to stop being fishermen. In the end us on the inside are going to be even more squeezed than we are now. The larger boats can adapt. They can shoot off 50 miles away but the smaller boats can’t.

With more wind farms planned including the Dudgeon which, is twice size of Sheringham, and the Race bank which is a prized ground for the Wells fishermen, this issue is only likely to get worse, with an effect on the beach boats. As Bob says, fishermen have repeatedly raised this issue. For instance, in 2012, the North Norfolk FLAG raised their concerns over the consent given to the Race Bank and Dudgeon offshore windfarms and discussed how to be involved in objections at the planning stage for windfarms (NNFLAG minutes, July 2012). At an IFCA community engagement meeting I attended in March 2013, one fisherman asked a windfarm representative who was present whether the impact of displacement had been considered. The question was seemingly not understood. This

fisherman later said to me "That needs to be addressed when they negotiate these deals. The stocks are not there to take this displacement of effort." The IFCA are a statutory consultee on these matters – and can therefore object to granting permission for a windfarm. Concerns over displacement have now been stated in the Eastern Marine Plan (DEFRA, 2014) which may allow this point to be given more attention in the future as it should guide the IFCA's responses.

8.2.2 Inconvenience payments: compensation or pay off?

Once the application is approved, payments are made for disruption due to wind farm development. These result from negotiations between windfarm developers and fishermen's organisations without government involvement. In the case of Sheringham Shoal, a sum was agreed on and paid to each fishermen's organisation based on the number of boat owner members. Each organisation distributed the sum among their members following their own agreed rules. Boat owners who were not part of an organisation were paid the equivalent rate directly when the developer was made aware of their existence. Contrary to payments made to landowners, which may be based on fixed rate per metre of land disrupted with information on agricultural yield and earnings being shared, negotiations with fishermen are not based on equivalent information (*pers comm.*, Public Relations and community engagement consultant for a windfarm company, March 2015). Payments from windfarms have resulted in serious grievances among fishermen who consider the 'compensation' process unfair. There are allegations from fishermen of individuals receiving compensation when they should not have. One of the IFCA employees told me: "The windfarm ... actually none of these guys ever go there. But they say we have the opportunity to so therefore the windfarm pay them to keep out the area. That's a bit fraudulent...."

Other fishermen also told me of some former or part-time fishermen who had boats on beaches and have received the same sum as those who are full-time. The NNFS rules state that compensation is paid to members who have one working, licensed, registered fishing vessel^{68,69} (NNFS membership rules, *pers comm* received by post in March 2015). However, the first condition involves an interpretation of who is part-time or full-time which is not always clear cut (see Chapter Five) and has been the source of disagreements. Alan remarked: "So [let's say] if there are 10 part-timers, that's a winner really [for them]. There may be £50,000 to share out.... but the share is smaller... so that's where the injustice comes from."

⁶⁸ Compensation is usually only paid to those who have been members of the society for 6 months or more.

⁶⁹ Fishermen who work directly or indirectly for a company paying out compensation have to forfeit 10% of the sum allocated to them, or all of it if they are working as a fisheries liaison officer (NNFS membership rules, *pers comm* received by post in March 2015).

He also commented on how well the fishermen were doing:

Hence the reason, they are all driving around in new trucks, new engines. That is not done just through fishing... I would say that without the windfarm money the Wellsmen wouldn't be doing half as well as they are.

In addition to the distribution of compensation and issues of fairness there are concerns that injecting money into the fishing fleet, with estimates varying from £600-2000 per week depending on the developer, was also unfairly sustaining fishing businesses and increasing fishing effort. The most recent incident between windfarms and fishermen occurred in the summer of 2014 over the Race Bank windfarm, an area traditionally fished for whelk and crab by Wells fishermen. The offer by Danish company DONG Energy Power of £220-250 per boat per day was rejected by the Wells and District Fishermen's Society saying this would barely pay for their fuel, let alone loss of earnings during peak season. The Society's chairman asked to "be treated with respect" and to speak directly to the company rather than with Public Relations representatives from London who were sent on their behalf (Telegraph, 2014). Following the breakdown in talks with several fishermen's organisations, DONG, who were under pressure to comply with time restrictions of the lease granted by the Crown Estate obtained a High Court injunction to force the boats who were resisting to remove their pots from the area and stay out of it for 90 days. This is the first time such measures have been used by an energy company. Prior to the injunction, in an attempt to resolve some of the perceived injustices by fishermen, the IFCA formed several working groups in 2014 chaired by the CEO to mediate discussions over disruptions around the Race Bank. This was however unsuccessful because it was not in the interest of the companies or the fishermen involved to have transparent, minuted discussions over financial matters or have the IFCA CEO present.

This is not the first time such controversies have arisen over disruption payments. For example, in 2006, Norman Lamb, MP for North Norfolk, raised concerns at an emergency debate in Parliament over how compensation negotiations between fishermen and energy companies were left to their 'good will' (The Guardian, 2006). This concerned the year long disruption faced by fishermen during the construction of a gas pipeline from Bacton in Norfolk to Balgzand in Holland. Norman Lamb claimed: "It appears the government doesn't have much interest in brokering any agreement. I'm acutely aware of how important the pipeline is but the interests of fishermen should not be prejudiced." The Dutch company Gasunie was accused of offering a bribe of over £50,000 to one of the fishermen who negotiated on the behalf of the fishermen's association (Eastern Daily Press, 2006). The amount agreed to compensate 110 fishing boats was £400,000 instead of the initial sum

sought by fishermen of £700,000; or an equivalent of £12.84 per boat per day (The Guardian, 2006).

I discussed this with one of the Cromer fishermen:

Carl: Mr Shilling negotiated for us. We never knew what went on. One of the boats had fished there all his life and didn't get paid anything! They just told us they would pay us x amount to stop fishing there.

Me: What did they base it on?

Carl: You know as much as we know. That was decided by people sitting around having coffee and biscuits, having a nice old time.

These examples show that there are no standardised rules concerning disruption payments which are claimed by fishermen. The long-term potential impacts of marine developments on the seabed and on fishermen's livelihoods cannot be fully costed since the impacts may be unknown and only become apparent in the future. Windfarms may be the newest form of marine development – focused on here – but other marine developments have also been reported to impact on fisheries. As well as experiencing chalk plumes during the development of the pipeline, fishermen have noted similar effects from dredging.

As the examples here show, there are many questions around the legitimacy and equity of decisions made concerning windfarms. Chris, a fisherman who had in the past worked for a windfarm company expressed the following: "Windfarmers can stop people fishing because they have so much money and the fishermen can't say anything. It's all to do with money now. They can buy the sea for millions of pounds...."

Fishermen's perception is that the government grants permission to windfarm companies who are powerful and wealthy enough to pay off fishermen, coastal communities and landowners. However, the neglect by government of the social impacts of windfarms can have serious consequences for fishing communities, and their sustainability. As a fisherman from the Independent Fishermen's Association said in November 2014 at an IFCA meeting: "What is the point of fishermen 'conserving' their fisheries if it is going to be messed up by wind farms?" The injustice and damage created by the development of windfarms - directly and indirectly - may result in a loss of environmental stewardship on the part of fishermen. As the next example shows fishermen, particularly those fishing inshore, have been working to develop ways of protecting their fishery from external influences.

8.3 Developing sustainable fisheries management measures with the IFCA

Over the last few years, fishermen have been voicing their concerns about the level of increasing fishing effort on their inshore crab grounds and have called for gear limits or other conservation measures to be put in place by the IFCA. While there is agreement from beach fishermen that some conservation measures are needed to protect the fishery, what these should be and who should be responsible for their design is less clear. Taking action outside of the Norfolk fishery is difficult. A UK fishing vessel holds a national licence allowing it to fish in any area. Therefore, there is currently nothing to stop any licensed boat fishing off Norfolk for shellfish on which there are nationally no quotas or effort controls and locally no byelaws to stop larger boats fishing within 6 miles. Robert expressed his concern:

Nomadic boats have now come round from the south coast. Three are working out of Lowestoft and exploiting our whelk grounds. We're afraid that they might decide they wanna catch our crabs and lobsters as well which is not good because they're right big boats and they work thousands of pots. We've had meetings with IFCA and they've said they can stop them somehow or other. They can introduce an emergency byelaw overnight, which would stop big vessels coming inside the 6 miles. Big 40-foot boats coming in there alongside us who are only 9-foot long. It's alarming isn't it?

As Robert mentions the IFCA can also take emergency measures if there is an immediate threat. The IFCA can also put in additional local byelaws, which could protect inshore grounds and could in fact limit access to only local boats through a permit scheme. So far no emergency byelaws have been taken for crab⁷⁰. The process for proposing byelaws is summarised in Figure 8.3.

⁷⁰ The first emergency byelaw taken by the Eastern IFCA was adopted at the end of April 2015 for the Wash whelk fishery.

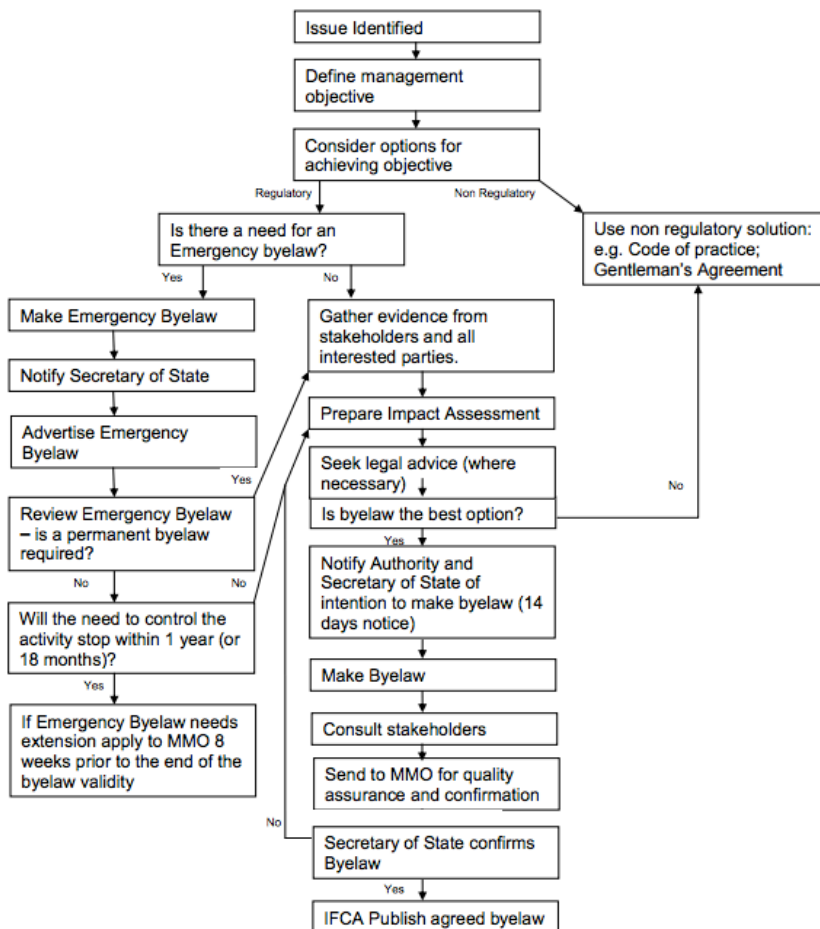


Figure 8.3 Process followed by the IFCA for establishing a byelaw. Source: DEFRA, 2011. Guidance on the byelaw making powers and general offence under Part 6, Chapter 1, Sections 155 to 164 of the Marine and Coastal Access Act.

8.3.1 Self-management, co-management?

In addition, to believing the IFCA should take action; the fishermen also have their own ideas. It is not the first time that management measures have been proposed for the fishery by the fishermen⁷¹. As the Norfolk's Fishermen's Society website says: "In the early 1960s we were instrumental with Eastern Sea Fisheries in putting in place a local byelaw to stop trawling across the grounds we work."

As Jim also told me:

We have always had limits here historically anyway. It was the fishermen who brought that in in the first place. Fishermen brought in size limits in the early 1900s. It wasn't some government department. We've always insisted on protecting it ourselves. I think you'll find the berried lobster law is also unique to this coast but again that came from the fishermen.

However, getting an agreement between Norfolk crab fishermen on how best to protect and manage the inshore fishery is far from simple, especially today, due to the level of competition between

⁷¹ See footnote 43 in Section 4.5.1 for information on current byelaws.

fishermen and the differences in how each operates – most notably between beach and harbour boats. What would be acceptable for one boat may put another out of business. The Chairman of the North Norfolk fishermen's society explained:

The inshore fishery is gunna try and protect their area say of the 3 miles. The Wells fishery are going to try and protect their area as best they can, so you do have a little bit of conflict there.

Although beach fishermen want to see their area protected they are often sympathetic to other boats with crew - perhaps recognising the financial pressures these boats are under but also revealing an egalitarian approach to fisheries management measures. As Jim said:

I suggested in fairness to my colleagues that it should be 200/person, rather than 200/boat because from Dan's point of view that would be pointless. If he wants to work 3 handed, then as far as I am concerned that's more than enough for someone to make a living.

Another issue is that the IFCA byelaws only extend to 6 miles. As Tom pointed out, this has become an issue now that fishing boats fish further out than 6 miles.

Berried lobster, that is a very contentious point because [some fishermen go] outside the 6 miles. It is outside the IFCA control zone so he can keep them and legally land them on the beach. Whereas I go out there half a mile off [...] have to throw them all back. So you can see where there are problems in the fishing industry. It's not right is it? If they want the fishing industry to continue, for that holidaymaker to come down here and have that twee moment, look at the lovely boats and the rest of it and look at all the crabs they got, they've got to stop those rules.

As Tom says not only does this discrepancy in applying the law cause injustice between fishermen, it also undermines the sense of stewardship that fishermen feel they have over their resources. In fact, while the IFCA area is limited to 0-6 miles, there are ways to implement rules further out to 12 miles with the involvement of the MMO. A single byelaw for the whole 0-12 mile area can be put in place by the MMO to manage fishing activity within an IFCA district⁷². The 6-mile delimitation seems outdated and many parts of the fishing industry would like to see rules extended. Jon said:

We think it's gotta be backed up by a national scheme. Obviously I don't wanna cut off my nose to spite my face [as a processor] I'm gunna need plenty of resource but I want the resource to be there in twenty years time not just five years time. I don't want there to be drastic measures so we can't survive but we'd like some sort of sensible measures so that we've got enough, everybody's got enough yet there's still some sort of fishery there for my children, or the next generation of whomever.

⁷² Currently no 0-12 miles byelaws exist. This provision has been made to take care of MCZs which may be on the border of 6 miles.

Jon hints at some ambivalence towards regulatory bodies. He recognises the need for regulation but only if this respects fishermen's livelihoods. Given the differences between fishermen and the limited level of social organisation, self-regulation seems unlikely. Co-management with the IFCA may have more potential.

8.3.2 Action taken by the IFCA

Despite the various measures, which could be put in place, none have so far been put forward by the IFCA to manage the fishery. Action by the IFCA has so far been limited to an attempt at resolving spatial tensions between beach and harbour boats in the Norfolk fishery. In November 2012, the non-regulatory option of a "gentlemen's agreement" (see Figure 8.3) was signed by the Wells and Cromer fishermen agreeing that Wells fishermen would stop fishing within three miles off Cromer (NNFLAG October meeting minutes; IFCA *pers comm*). The IFCA CEO explained how this was agreed and communicated:

A letter was sent out to the leaders of associations to say that, on behalf of your membership most of which were in the room that night, you have agreed between yourselves - totally unenforceable it's not an Act of Parliament or anything but - that as reasonable businessmen you won't stand on each other's toes. And I know from that moment on, some people said it's not worth the paper it's written on, I'll do what I want. It's totally within their rights to do it and other people are outraged.

Unsurprisingly, the agreement was not adhered to and has generated yet more tension between the two groups. Two younger fishermen from Wells, both in their 20s who work as crew, reflected and expressed some of the wider discussions taking place among Wells fishermen. Ben, said:

They're trying to kick us out. But when the weather isn't nice, why should we be, even though we've got the bigger boats to go further off, why should we be 20 mile off when it's blowing a gale? Risking our boats and crew and that when they're all snug up right in the beach where they don't even get a breath of wind?

Chris added:

They're no-one's waters at the end of the day. You need to make a day's pay. I know it's in people's place where they fished all their life but [...] if you hear there's a shoal of crabs on that sand bank near Cromer it's not like you're not gunna go to it cos that's where the money is. And you're out there to catch money. You're not there just to catch crabs and lobsters, you're out there for the money. That's the most important thing.

It seems clear that the IFCA is reluctant to adopt byelaws for crab fisheries and that it may take some time before any action is taken. Other fisheries within the IFCA's district are being prioritised such as cockle and whelks in the Wash. Since its establishment, no new byelaws have been put forward by the Eastern IFCA⁷³. All IFCAs have been tasked with reviewing existing byelaws as a simplification exercise by April 2015 but as of August 2015 results from this are not in the public domain. As Figure 8.3, shows developing byelaws is a lengthy process and voluntary measures are encouraged. The burden of evidence (of unsustainable exploitation) and administration required seems to be causing a delay in action. The IFCA's CEO told me:

If there is an impact on our duties, so the sustainable exploitation of sea fisheries resources or other things, then we'd been compelled to act. [...] The thing is to act you need evidence, you know. To put in a byelaw, to get the Minister to sign a byelaw you need a huge amount of evidence and then I need to do a full consultation and at the moment my evidence is, you know...

This delay is causing some frustration for fishermen, who it seems would support measures being put in place. Carl, said:

Lots of fishermen are saying 'this needs to be regimented'. It needs to be looked at, proper limitations, and to really control it, a permit to fish. Fishermen would go along with it. But then [the IFCA] turned around and said 'if it ain't broke, don't fix it.' which is an absolute load of squit⁷⁴.

Under pressure from the NNFS, another step was taken in spring 2013 to assess the level of agreement over different management proposals between crab fishermen across North Norfolk (FLAG minutes March 2013; North Norfolk Fishermen's Society *pers comm*). A questionnaire including proposals from the NNFS was sent out by the IFCA to fishermen. To date, the responses to this survey, which had a relatively good response rate, have not been officially compiled by the IFCA. In effect, nothing further has been done to address fishermen's concerns. The CEO explained:

It was just a [...] tool. You know, they wanted a voice in it. Should there be a problem, what kind of management measure would you support? [...] The thing is, there seems to be this sort of expectation that, questionnaires completed there's going to be a pot limitation next week. There's no way you can do that. I've got to analyse all the pros and cons of that and come up with a reasonably balanced solution that fits and doesn't put people out of business and also close off the loop holes. Because a pot limitation, is that per boat or is that per man because if you're saying per man and you're saying it's 200 pots per man and I need 1200 to run my business, I will have 6 people on my boat. But if you're going to put it on the boat, 200 pots per boat, there'll be people who say right, I'll have 6 boats then.

⁷³ An emergency whelk byelaw was put into place in at the end of April 2015 without consultation of the fishermen. An 'informal information gathering exercise' was then launched online from July to August with a view to making the byelaw permanent and was followed by a formal written consultation (November 2015 and will end in January 2016).

⁷⁴ Norfolk dialect meaning nonsense.

Unfortunately, the urgency felt by beach fishermen for the need to protect inshore grounds is not reciprocated by the IFCA, which does not share the fishermen's priorities. Furthermore, its management mechanisms, e.g. changes in legislation, are time consuming to put in place and difficult to enforce. Furthermore, the IFCA does not appear recognise the role of fishermen in making regulations work and that their support is essential for compliance.

8.4 Marine Conservation Zones: conservation of what?

In recent years, habitat based 'marine conservation' has been higher up the UK political agenda than managing fisheries sustainably. In 2009, the MCAA enabled the development of MCZs around the UK intended to protect important marine and coastal habitats and species. Importantly, Article 117(7) of the MCAA requires stakeholder consultation in decisions on MCZs stating that "in considering whether it is desirable to designate an area as an MCZ, the appropriate authority may have regard to any economic or social consequences of doing so". Until then, marine and coastal conservation sites⁷⁵ had been designated without consideration of social and economic impacts. As impacts on marine users now had to be considered, a participatory process for identifying MCZs was set up. In England, this was contracted out by Natural England to partnerships called 'Regional Stakeholder Groups'. In the East, this regional stakeholder project was called Net Gain, based in Hull covering an area from Essex to Northumberland. Its task was engaging with stakeholders, gathering data and identifying suitable MCZs through participatory mapping and achieving consensus where possible. It involved a relatively complicated process to be conducted in a relatively short timeframe. It culminated in recommending MCZs to the government at the end of 2011, which would form part of a national network.

⁷⁵ such as Special Areas of Conservation (SACs) or Sites of Special Scientific Interest (SSIs).

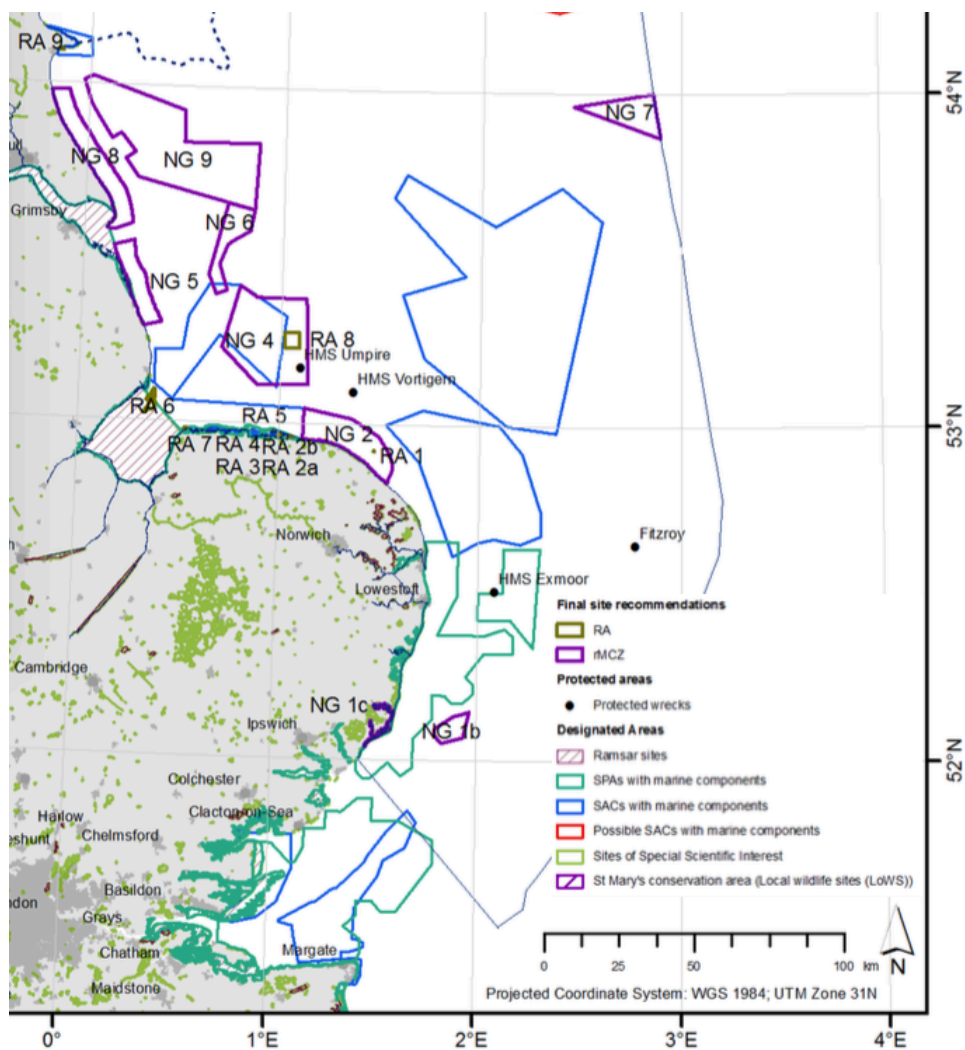


Figure 8.4 The proposed Marine Conservation Zones by the NetGain project. This shows the Chalk beds (NG2) and the reference areas (RA1-4) on the North Norfolk coast. Adapted from: Natural England (2011).

One outcome was the proposal to designate the chalk beds – which coincide with traditional crab fishing grounds - as potential MCZs, as well as other sites nearby such as Blakeney Marshes, some of which would be reference areas with no permitted human activity (Figure 8.4). However, due to a lack of evidence and general dissatisfaction among stakeholders and the public, no sites were proposed for designation in Norfolk in 2013. In January 2015, following further evidence, the Cromer chalk beds have been put forward for public consultation with the aim to maintain its current status. No management measures are being proposed, meaning that fishing activity can continue.

Through engaging with fishermen and other stakeholders in the process, the government hoped that support for MCZs would build and enable their designation. Instead the “participatory space [was] reduced to one of bargain and compromise between the ecological and socio-economic interests/knowledges to be represented by different groups” (Pieraccini, 2015, p.2). As I will show in the rest of this section, the result in Norfolk was a high level of controversy and opposition.

8.4.1 Legitimacy of knowledge and use

There were several reasons why the 'stakeholder-led' process did not lead to the support that was expected (Natural England and JNCC, 2012). Firstly, there was a limited time frame allocated to the participatory and consensus building process. In total, this part of the project dedicated to achieving agreement over areas to be designated was 15 months. Secondly as Pieraccini (2015) noted, the selection of MCZs was in a sense pre-determined by the criteria⁷⁶ which had already been set out by government rather than being developed by the participating stakeholders. The knowledge base was centred on scientific data, even if out of date, rather than local knowledge which was considered anecdotal. The portrayal in the national media of 'Europe's largest chalk reef' being discovered by an environmental diving NGO, SeaSearch is an indication of how legitimacy was given to different knowledge claims. As Robert put it:

This chalk reef that they discovered, that everyone knew was there.... They put pictures of it in the paper and everywhere. Well, I've been fishing it 50 odd years and that was fished 50 years prior to me starting.

SeaSearch East, who were involved in generating data as part of a 'citizen science' approach, also participated in the regional stakeholder group, and were particularly influential in the area being put forward for designation. Fishermen's existing knowledge was ignored and they found themselves labelled as damaging the ecosystem rather than, as they perceive it, protecting the ecosystem. Alan from Cromer said:

That's a unique area. Because we had a no trawling ban, that's saved it. [...] And the pots haven't done any damage. That's why it's still there. I have been down there and it is pretty. Years ago I did some diving. When the water is really clear that's fantastic, it's really beautiful down there. That's not a flat bottom. It goes up and down all the time. The windfarms with their cables do more harm than the crab boats!

In addition to knowledge claims being contested, the legitimacy of different users was contested. Everyone is considered as having a stake in decision-making. As one of the fishermen involved put it: "We had a room full of different stakeholders as they call it. [...]" However, divergences in interests and values were difficult to resolve. For instance, whether divers had the same or more rights to use the chalk habitat as local fishermen was questioned. As Stan said:

⁷⁶ These criteria were presented in a document: "Ecological Network Guidance" by the JNCC and Natural England in June 2010

The conservation bit is good, we're all for that but [...] when you get somebody who want to go and look at something on the seabed for pleasure on the weekend tell you [that you] can't go and work there. [There are] so many people telling us all what we can and can't do, who don't earn a living from the sea. I think that's what riles a lot of fishermen up.

In fact, the media attention generated by SeaSearch gave rise to an increasing number of divers visiting the areas, causing conflicts with fishermen and safety concerns. Meanwhile some divers participating in stakeholder meetings suggested that fishing should be banned because it could damage the habitat whereas diving activity should be allowed to continue (Natural England, 2011). The reality is that fishing which involves hauling shanks of pots from the seabed can be dangerous for divers. A number of altercations have been reported between divers and fishermen who say it is only a matter of time before an accident occurs.

8.4.2 Trading off or defending social, economic and ecological objectives

Balancing social, economic and environmental needs was in reality far from simple. During the process there were clearly some different perspectives. For instance, the National Wildlife Trust made a statement saying that “the ecological importance of MCZs must be a priority during planning and should be the message [re]iterated to stakeholders during hub meetings by the Net Gain team.” (Net Gain, 2011, Annex 6). The Royal Society for the Protection of Birds complained that poor ecological data were leading to “MCZs being identified primarily to avoid socioeconomic interests” (ibid). In fact although ecological data to identify MCZs was weak, it was to some extent more available than social and economic data which were virtually non-existent, as reflected in the impact assessment (DEFRA, 2012; Caveen *et al.*, 2013).

While the National Wildlife Trust complained of the influence from socio-economic interests, fishermen directed similar concerns over the influence of conservation NGOs. In reports by NetGain, fishermen complained they were under-represented at meetings and at a disadvantage compared to other conservation organisations in the room. The IFCA also noted that not all fishermen were represented. For instance, while three Cromer fishermen were on the local stakeholder group, none of the Wells fishermen were.

In addition to not having suitable data to base decisions on, there was further uncertainty over what a MCZ designation would mean in practice. NetGain's role was limited to making recommendations, “not in the final design or selection of sites” (NetGain website, 2012). This meant that management

measures and their enforcement, in each recommended site were to be announced later. It became apparent that the enforcement of MCZs would be a challenge, not least because the IFCA would lack the resources for this. Jim told me:

They were going to set up reference zones. That was our biggest concern. One in particular was going to be off West Runton where a lot of the boys make their money in the summer so we would resist them tooth and nail.

Jim refers to the fact that reference areas - where no human activity could take place - were discussed late in the process, in March and May 2011. Several included intertidal areas such as sea marshes (Net Gain, 2011) and these faced public resistance from residents and community groups – e.g. bait diggers and samphire collectors - who had not had any involvement in the NetGain project (Norfolk Coastal Partnership, 2012). The time available for participation and uncertainty over management rules produced some anxiety among stakeholders in the process. 'Stakeholders' were included to represent or rather to defend their interests. Ecological interests presented by the environmental or conservation organisations were placed in opposition to the socio-economic interests of fishermen, recreational users or private developers. During the process stakeholders were faced questions over the legitimacy of their knowledge and their use of the sea. In the end, this led to a polarization of views and led to the process being perceived as a battle rather than one of collaboration. This was clear when interviewing fishermen in 2013, who had been involved in Net Gain. Bob considered:

I think we stopped, I won't say we stopped, we made good arguments through Net Gain hubs which were then taken over by [the government]. We made good arguments about protecting our area saying we've helped protect it in the past because of the no trawl zone. But that is ongoing, they're going to come back at us again in the future in regards to MCZs so that's an ongoing battle at the moment, perhaps we've won the first battle but we haven't won the war, by any means.

Robert also portrayed the process as a battle:

I went to several meetings, trying to stop them cordoning off any of our fishing area. I fought against it and they haven't actually put it forward, [not] Cromer. That's still up for review apparently because there's several people who want to have this as a protected area, mainly [Natural England] and a load of divers.

Now that public consultation has gone forward for the Cromer chalk beds, fishermen are continuing to publicly oppose it (ITV News, 2015). However, follow-up conversations with several beach fishermen revealed a more nuanced perspective. Fishermen recognise that MCZs could also be used

to protect the beach fishery from offshore vessels. This example highlights how participatory processes can result in deeper divisions between groups and how resistance can develop when individuals perceive their activity is threatened. At the same time, the process has led to a stronger collective voice from the fishermen to defend their interests, the conservation of the fishery, rather than simply the marine habitats that support it.

8.5 Accessing financial support for building social resilience

While the last three sections focused on governance for the spatial management of the marine environment and technical management of fishing activity which are regulated by the MCAA, the next example focuses on the NNFLAG, a community partnership. Its aim is to build a sustainable and resilient fishery which encompasses both sea and land based activities. At present, no government institutions specifically support fishermen's businesses or encourage recruitment into fisheries, either at national or local level. For instance, while the IFCA recognises the ageing structure of local fishermen, addressing these concerns is not considered to be within their remit. When I raised the issue with their CEO, he responded:

It would be an enormous shame if, you know, some of the more traditional activities which are part of the fabric of the area just dwindled or went by the wayside. [...] But there has to be a value judgment placed on that, the apprentices have a go and say 'well it's not worth it, it's too difficult, it's too cold, it's too wet'. Whatever it is I don't know. Maybe it's a statement of where people are these days, I don't know.

Supporting fishermen's businesses or encouraging new recruits are both objectives of the FLAG (Table 4.1 in Chapter Four) and this has been the main institution through which these concerns have aimed to be addressed. Many of the fishermen I interviewed considered that the difficulties they face today in making a living and in entering the occupation are at least in part due to government policies and interference in their work. Therefore, the FLAG was a real development opportunity for the North Norfolk fishing community, with its vision focused on building social and economic resilience.

8.5.1 Moving from individual to social resilience

While the FLAG objectives were to "boost entrants – individuals and businesses – to the industry to ensure that the fishery can continue to operate in the long-term", supporting individuals directly was not possible. The majority of funding was allocated to organisations for heritage projects, with little perceived direct benefit for fishermen (see Table 8.1). Instead of funding individuals, funded projects

tended to include those which were perceived by funders and project proponents to benefit the community. This included projects – mostly proposed from outside the fishing community – such as seafood festivals, heritage and visitor centres (£365,900); improvements to where fishermen worked were also supported (access ramps, market buoys, navigation buoys, gangway refurbishment) (a total of £134,583.87) and one project funded training courses for 36 young people mentioned in Chapter Six (£37,480, Table 8.1). Several reasons exist for the funds focusing on collective rather than individual support. The main reason was the dissonance between the rules followed by the MMO and by the FLAG committee when considering applications.

Table 8.1 Allocation of EFF funds through the North Norfolk FLAG (*pers comm.*, January 2015)

Type of funding	Number of successful project applications	Examples	EFF contribution (£)/ % of total
Coastal public infrastructure	3	Blakeney footpath restoration, Cromer west prom, Access ramps at Sheringham, Mundesley, Bacton	418,280.27 (34%)
Heritage and art	8	A day in the life of a fisherman, puppet show, book and play, Visitor Centre, Crab and Lobster festival 2014	365,899.80 (30%)
Improvements to fishermen's place of work	6	Personal location beacons, Sheringham gangway, lighted harbour buoys	134,583.87 (11%)
Individual fishermen's businesses	3	Cooling/dehumidifer, seafood bar, replacement Outboard Engine	64,086.60 (5%)
Environmental projects	2	Sediment analysis , seabed and coastline monitoring project	50,763.00 (4%)
Support for new entrants	1	Apprenticeship scheme 3 x 3 weeks for up to 12 young people each time	37,480.44 (3%)
Business directory	1	Database of over 8000 businesses	24,832.00 (2%)
Operating costs of FLAG			126,000.00 (10%)
Total spent			1,221,925.98

A FLAG member who was also a fisherman, put the blame for delays on the MMO:

I think our main stumbling block is the MMO, because they don't appear to know what they are doing. When we do send something in to them they seem to always need something extra. That's just so long getting the money.

However, another FLAG member also cited the lack of familiarity with accessing European funds by the Norfolk Business Forum, initially charged with the FLAG programme delivery, as the main reason for rejected funding applications. The MMO also offered this explanation and stated that they were

simply applying the European Fisheries Fund (EFF) rules for Axis 4 to evaluate FLAG applications. However, when I requested information on these rules from the MMO they could only refer me to a general information webpage on EFF funding, but nothing to explain what could or not be funded⁷⁷. The FLAG Committee had decided in December 2012⁷⁸ that individual fishermen/fishing businesses could apply for project funding, difficulties were encountered when the MMO, who had the final word, rejected such applications. The MMO was reluctant to approve funds which could benefit individuals – for instance in projects which included the payment of a salary to an individual, preferring an established organisation to receive funds. Following the EFF rules, they could not approve funding for improvements to fishing equipment owned by fishermen that could lead to increased fishing pressure. Gear purchases could be also accessed directly by individual applicants to EFF Axis 1-3⁷⁹. Similarly, funding for young people towards the purchase of a fishing licence or boat was excluded as was training for an individual⁸⁰. Further barriers to individual applications were the length of the forms (19 pages), the technical language and the 40% matched funding which was usually required. After hopes in the fishing community had been raised, disappointment followed. Unfortunately, by the end of December 2014, only half of the £2.3 million budget had been approved to projects. A FLAG member reflected:

The trouble is because we sold it to the fishermen as some great big blaze. In hindsight, always a wonderful thing, that was probably a bit of a mistake. We are having so much trouble getting the money through, the fishermen, apart from a handful of us still on the committee, the rest of them have lost all faith in it whatsoever.

As Carl, told me:

We tried the FLAG money and all the rest. You know what that stands for now? Forgotten Lost And Gone. FLAG. They're just wasting it on meetings, meeting after meeting. We've got nothing. And none of us down here think we'll ever get a penny of it. When nothing is happening and more and more money is getting spent on meetings..... I'm afraid we just don't believe; we don't trust.... We were prepared to but the trust has gone, the lack of communication.

⁷⁷ Emails to MMO in January-March 2015.

⁷⁸ Second NNFLAG Newsletter.

⁷⁹ Axis 1 covers adjustment of the fishing effort, fleet renewal and modernisation; Axis 2 covers supporting other fishery activities; aquaculture, inland fishing, processing and marketing of fisheries and aquaculture products and Axis 3 covers Measures of common interest

⁸⁰ Question by email from FLAG animator to MMO: "Can funds be applied for to support a new fishermen (who have undergone basic level training) in getting set up, which may include funds for purchasing a licence, a boat and related equipment? This would perhaps be of particular use to those unable to inherit a boat or licence." MMO: "No, we cannot fund the purchase of vessels or licences. If the applicant had a licence already and the vessel had been on the fishing register for 5 years they could get equipment but this would be a standard Vessel Modification (Axis 1) application."

However, other projects with potential funding from the FLAG were promoted as increasing the social resilience of the fishery – particularly where resilience is usually developed at an individual level. A fisherman, Jim, involved in the FLAG explained:

We aren't overloaded with product so what we have to do is make that product worth more money. But because the boys have just been dodging along year after year and nobody talks to each other.... it's always very secretive so hopefully by raising the profile of the product we can increase demand and get more money. Ultimately it is about raising the price because we are now at the end of March and I've now gone 4 months without earning any money. If we can increase the price that will make the winter a little better.

However, justifying funding heritage and other projects to the fishermen was difficult. The same fisherman said:

This heritage project [...] they look at that and think 'What is this for?' But people are going to be educated through these heritage centres. It helps to raise the profile. But actually I don't explain it very well and trying to explain it to fishermen is even more difficult.

Fishermen tend to work on their own rather than in collaboration with other fishing businesses. As Jim indicates, the social resilience of the fishery depends on finding collective solutions. However, the engagement of fishermen in such initiatives requires a change in habit and culture: from coping with change individually (through strategies outlined in Chapter Five) to one of collective action.

Despite some shortcomings, the FLAG was positive in a number of ways. The role that the FLAG has been playing in improving stakeholder communication can arguably be viewed as the most successful in terms of improving the relationships and communication between different stakeholders, or at least for individuals who are members of its committee. Currently the FLAG administrators are waiting to hear from DEFRA regarding the new funding instrument the EMFF from 2015 to 2020. In case this does not transpire, those who have taken part have expressed their will to keep this as a forum for continuing to engage with each other on local fisheries issues. However, without funding, the reality of this occurring is unlikely.

Several projects aimed to support fishermen collectively were not taken forward (e.g. a Fishermen's Freecycle website, a Marine Stewardship Council pre-assessment and EU recognition for Cromer crab). I focus on one of these examples: the recognition of the fishery as a geographical indication of origin.

8.5.2 EU recognition for the 'Cromer Crab' brand: securing a future for fishermen

The recognition of fisheries through labelling schemes represents a new trend in seafood and a classic strategy for adding value to local and sustainable produce (Urquhart and Acott, 2013b). In 2012, the Independent Norfolk Fishermen's Association expressed an interest in applying for Cromer Crab to be recognised under the European Protected Geographical Indication (PGI) scheme. Taken to vote among local fishermen⁸¹, six were in favour and 45 against (NNFLAG Newsletter 1, 2012). However, since I conducted interviews in 2013, it seems there is renewed interest from fishermen in recognising the fishery under a EU scheme. In early 2015, the subject has come up again for debate, with a FLAG working group being set up to reconsider options (Eastern Daily Press, 2015b).

Its initial rejection by fishermen reveals some fundamental characteristics of this fishery and exposes different relationships to place. The proposal was rejected by fishermen, principally because of disagreements over defining where a Cromer crab is from, and the perceived difficulty of being able to set a geographical boundary. Alan explained: "You can't put a boundary on it really. With the Cornish pasty you've got boundary but here, where do you draw the line? You just can't do it." Not only is the fishery difficult to define spatially, as I explained in Chapter Four, but the boundaries of the fishery have been stretched over time. Within Norfolk, crabs now come from boats landing at Brancaster all the way towards Great Yarmouth. Jim said:

If you had asked me 30 years ago I would have said Blakeney to Mundesley. But now with all the whelk boats now going after crab, catching it 30-40 miles to sea. They are landing them in Wells - same breed of crab - so are they discounted?

Not only have fishing practices changed, but the Wells fishery can be an important supply for beach boats in times of shortage - and at times crabs may come from further afield. This is common practice in many inshore fisheries around the coast and used as a strategy where demand cannot be met. For instance, some years ago at the Whistable oyster festival, a fisherman explained to me that they had to import oysters from Ireland due to the number of visitors. In 2013, fishermen did not perceive that a labelling scheme would create any added value compared to the added bureaucracy, the cost and the restrictions it would bring. Many I spoke to including Nick said: "Cromer crabs are famous anyhow. We've got the name already. It wouldn't affect me anyway because everything I sell is locally anyway. [...] As far as I'm concerned it's just for the supermarkets." Locals and visitors mostly buy Cromer crabs locally and appreciate buying them from a local fisherman or somewhere they know has been supplied directly by a fisherman. Knowing that the product is fresh and local is

⁸¹ four meetings in Cromer Wells, Mundesley and Sheringham with the option of a postal vote.

enough for consumers who don't need any convincing to buy crabs from fishermen. Finally, the added levels of bureaucracy and potential risks – including additional costs - involved have put fishermen off. Jim said:

We have too much regulation already. We want an easier life not harder one. The physical and mental side of the job is hard enough..... I could show you the book I have to fill in for my health and hygiene daily. And if we had this EU status every crab we land would have to be tracked. We would have to prove it has been landed in a particular area.

Finally, other fishermen were concerned that raising the value could attract other fishermen, creating more competition or that individuals might cheat the system in order to benefit from any added value. However, in 2015, certification is perceived by some Cromer fishermen as a potential way to enhance social resilience and defend the fishery against future regulations. A conversation with two fishermen in March 2015 (when a public consultation was launched concerning MCZs) suggests that this change in opinion may be in reaction to the perceived threat of the Cromer chalk bed designation.

8.6 How and to what extent can fishermen shape their future?

As the four examples show, the extent to which fishermen can shape their future varies greatly – from windfarms where fishermen's participation in decision-making is virtually absent to the opportunities presented through the FLAG. Fishermen in Norfolk have little history of political engagement in fisheries governance. Increasingly, however fishermen have perceived externally imposed changes and policy processes as threats to their fishery. A shared identity and concern has led the NNFS and other fishermen's organisations to work together particularly through the FLAG and the IFCA. I focus on these two institutions in this section as the principal arenas for policy change. While fishermen's organisations can be very influential, they lack the resources to implement change.

Unfortunately, so far the scope for collective action has been limited by constraints of a hierarchical governance structure. In addition to limits on grass roots collective action due to an agenda increasingly set nationally or higher, other limits to collective action come from the processes for participatory decision-making. For example, power over decision-making is exercised through the use of knowledge, and the particular individuals involved (Cote and Nightingale, 2014). These constraints

to social resilience through collective action are linked to issues of scale, structure and flexibility (Cummings *et al.*, 2006). These include being able to establish a common purpose or vision. This is dependent on who is represented in governance and what processes exist for deliberation.

8.6.1 Scale, structure and flexibility

As the examples in this chapter show, although institutions such as the FLAG and the IFCA are set up to deal with problems at a local scale, much of the decision-making power lies at the national or supranational level. Both the FLAG and the IFCA are limited in their scope by the MMO.

The IFCA answers primarily to the government department DEFRA, and the MMO through which European and international legislation filters through. Prior to the MCAA, “Defra’s role in relation to the SFCs [was] to appoint a fixed number of members to each Committee and to confirm any byelaws developed by the Committees”, a role now adopted by the MMO (archived DEFRA website, 2009). However, “Defra ha[d] no powers to direct SFCs in how they manage fisheries within their Districts” (ibid). In contrast, the MMO, now seems to heavily guide the IFCA’s work for instance in the development of byelaws. Since the reform of SFCs to IFCAs, I argue that this governing system now resembles a more centralised approach with some limited delegated responsibilities rather than a mix between a centralised, decentralised and delegated system as Phillipson and Thom (2001) suggested concerning UK fisheries governance. The FLAG has more of a bottom up decision-making structure with its decisions over funding applications being made by its committee members and in some cases also through a wider consultation (see example 8.3.4). However, the FLAG’s actions are not always representative of fishermen and were also limited by the hierarchical structure through which the MMO approved decisions made by the committee.

Mechanisms that enhance flexibility and adaptive capacity are an essential part of social resilience. As Ostrom (1990) identified, the most successful collective action around common resources occur around resources with clearly defined boundaries. However, one factor that contributes to the ‘wicked problems’ associated with UK governing inshore fisheries is the issue of rules, which are boundary based in a system that inherently does not have fixed boundaries. Currently this is limited by the IFCA to 6 miles, considered a meaningless boundary by fishermen particularly in light of increasing fishing pressure outside this limit. These boundary-based rules create feelings of injustice among fishermen. As Tom said, the discrepancies it creates may also dissuade compliance: “When there are discrepancies, when there is a rule for him and a rule for me, that don’t work then. Because you will not abide by them rules. Fishermen won’t.”

The inflexible nature of IFCA jurisdiction is perceived by fishermen as hindering progress on protecting their fishery for the future. In part, the issues around boundaries are inherent to marine resources (Agardy *et al.*, 2003). This was apparent in the example around certification where the boundaries of the Cromer crab fishery were considered too difficult to define. The distribution and abundance of fisheries changes temporally, within the year and from year to year (as explained in Chapter Four), but also spatially. The fact that the NNFS is the only institution to have a flexible definition of its spatial remit is perhaps a reflection of this (See Table 4.1). As Helen, a retired fisherman's wife, said:

Fishermen have a great faith in nature and nature will always dictate what's happening. They can't guarantee that they can go to sea because the wind blows or... the storms last longer or the fog comes down. There is too much human input now saying 'that's got to stay here'. Whereas in reality, it's not like that, everything is flexible, it's continually moving. Yes, there needs to be some governance... but the [local] fishermen don't want to catch too much cos' they want to go back to work next year. The focus is too narrow.

As Helen alludes to, fisheries governance needs to allow for a sufficient level of flexibility to enable fishermen to adapt. Setting seaward and landward boundaries broadly or flexibly for governance processes may be necessary, depending on where fishermen catch, process and sell their crab. In terms of certification, instead of focusing exclusively on boundary-based rules, a way forward could be agreed by setting some principles based around a shared identity (e.g. beach boats, fishing or processing method). This relies on agreeing on shared values and developing a common vision.

8.6.2 Establishing a common vision: shared values and principles

In the examples presented, tensions in the governing system relate to the domain at which objectives have been set (e.g. fulfilling national or international targets for biodiversity or climate change; maintaining place identity and sense of community). Other tensions were also exposed in this Chapter and Chapter Seven relating to different use values between groups (e.g. marine conservation, diving or surfing; extractive livelihoods, development of wind energy). A further tension exists between how different organisations interpret sustainability and the relationship between people, place and the environment. All of these result in contestations over how coastal areas should be managed and hinders the development of a common vision for coastal places, which Kooiman (2003) and Jentoft *et al.*, (2010) considered essential for providing a direction for governance.

The IFCA's vision as provided by the MCAA is broad. It includes "ensuring fisheries are sustainably carried out, that a balance is achieved between social, economic and environmental needs, taking steps necessary towards sustainable development, and that the needs of different sea fishery resource users are balanced". Since the reform of the IFCA's and the addition of conservation to their name, inshore fisheries are regarded as one activity among others that need to be considered rather than a fundamental part of coastal place identity. Instead what is considered fundamental is protecting the ecosystem so that humans can then benefit from it. Added to this shift in priority is the assumption, that everyone can and should have an equal say in governance demonstrated by this statement "All the various marine stakeholders *from dog-walkers to lobster potters all need to pull together* to achieve the long term goal and vision of healthy seas providing 'ecosystem services' for the future" from the Association of the IFCA's website⁸² (emphasis added). The IFCA's remit has shifted from one which the national government and other stakeholders considered was too far in favour of fisheries to one in which nature conservation is now favoured. As their CEO, told me:

Our duties are, under the Marine and Coastal Access Act, to protect the marine environment first and foremost and then to enable activity, subordinate activity. That's what we're in the business of. Before we were sea fisheries committees, so fisheries managers. The bit we've had to learn is the conservation management and the bit we're being held to account for is conservation management [...] One activity that hadn't been held to account was fishing activity and rightfully that is now.

As this quote illustrates the focus on marine conservation has become central to the aims of the IFCA's (taken as being the necessary base for economic and social sustainability). However, as Helen and Joe argued, this approach has become relatively fixed and narrowly focused on conservation. Fishermen have a rather different view of the marine system - as a natural system of which humans are an essential part - and can be harvested sustainably.

Helen: As the conservation gets more intense and the fishermen get less, there needs some gate that stops there and then we have that passage in the middle. That actually sustains the fishery for the future...If all of a sudden there were 1/2 the boats, people might say well that's good they'll be more crabs to catch. Yes, there will be for about 10 years but after that the quality would deteriorate.

Joe: You want some fishermen to keep the ground productive, good quality, because it is good quality. It's like pruning isn't it? There's no crab that can touch the Cromer crab. Everyone knows that they are the best quality... only because they are looked after. Same with the man and his garden, he plants his seeds.

⁸² Association of Inshore Fisheries and Conservation Authorities (2015) <http://www.association-ifca.org.uk/about-us/ifca-history>. Accessed 10 January 2015.

Interpretations of sustainability are quite clearly different. The fishermen, who aim to exploit the sea sustainably, perceive their role as not simply extractive but also nurturing the ecosystem's productivity. The IFCA considers that the marine environment must first be conserved in order to allow other activities to take place. The lack of coherent ideas about sustainability has led to a conflict in the roles that the IFCA plays, which extends into how it operates. For example, in talking about the CEO of the IFCA, a Cromer fisherman said:

I would say he's ambivalent. He'll say one thing and then think of two things to say to counterbalance his point. So he's actually said nothing. He's trying to be everyone's friend but, you can't. He wants to appease everyone and you cannot do that.

While participation in decision-making can help in developing a common vision, it is not enough. Leadership that is perceived as fair and transparent is also expected of institutions to take this forward. Currently, the vision across UK institutions charged with marine and fisheries policy does not reflect local concerns. This was also apparent in the different ideals used by the MMO and the FLAG. Funding new fishermen or improvements to fishing boats (as the FLAG would have liked) was considered at odds with a conservation ethic, which seeks to reduce fishing pressure and capacity. This was in part aggravated by the MMO's dual role as an enforcer of fisheries regulations and a funder for development projects (GIFS report, 2014). A further example of incoherent governance was reflected in the MCZ process and the way that socio-economic benefits were traded-off with ecological concerns rather than being considered holistically.

Contrary to the IFCA, the vision of the FLAG was adopted by its members rather than imposed from a national or European level. Their vision is clearly focused on the sustainable economic and social development of the fishery and its associated coastal community. The focus is also place based and its purpose – resilience building – shared between different stakeholders.

8.6.3 Deliberation, representation and knowledge

Forums for deliberation: the FLAG and the IFCA

Trust, shared understanding and social learning can in principle be built up through repeated deliberation with others. Allowing for deliberation to occur is therefore an essential part of participatory governance but its success depends on the process through which this occurs (Gray, 2001). The FLAG and IFCA have different forums for deliberation to achieve governance.

For instance, in order to achieve the IFCA's vision to *balance social, economic and environmental benefits* in decision-making and resolve differences between interest groups and between local and national level policies the IFCA holds community engagement meetings. These are held in an *ad hoc* manner several times a year, and aim to enable local issues to be raised and for solutions to be found through discussion between stakeholders in the community and the IFCA. The format has usually been that of a surgery, where anyone can turn up and voice their concerns to IFCA officials. As community meetings have been viewed as unsuccessful by the IFCA, the CEO has been considering other ways of meeting stakeholders, which could involve a mobile vehicle for one-to-one meetings rather than open meetings.

If anyone turns up, normally one or two people shout and everyone else stays quiet. And then I get a flurry of phone calls saying 'I wanted to say something to you but I couldn't because I didn't want to say this in public' or 'I was shouted down, or I'd be laughed at'. So they're not working because people feel intimidated. And the other thing is, I'm not a fisheries authority going to speak to a fisherman. I'm an inshore fisheries and conservation authority. And not once at any of these meetings - and I did 17 or 18 of them last year - did I ever see one conservationist? No, because they're repelled. There's no way they're gonna walk into a meeting with fishermen there.

However, 'conservationists' are often more effective at communicating their concerns directly to the IFCA, particularly through NGOs, meaning that participating in a public meeting may be of little interest. The deliberative value of these meetings or the culturally defined aspects of how particular groups communicate is not fully recognised by the IFCA. A quote from the GIFS report (2014) with a councillor involved in the FLAG reflects on how communication has improved over time as relationships and trust have been built. The councillor says 'I think half of it is the Norfolk side of people, they don't start shouting or making comments until they feel comfortable and they know who's around them [...] Nowadays nobody will hold back'. I observed this in IFCA community meetings held in Cromer in 2012 where fishermen are reluctant to speak out even though I had heard them openly discuss their views in interviews with me or with other fishermen. Fishermen were much more vocal in comparison at a similar and well-attended meeting in early 2015, following a gap of almost a year without such meetings.

The FLAG holds regular meetings for debating funding applications and sharing relevant news. Compared to the IFCA, the area covered is smaller and the format of meetings has a clearer focus. The FLAG has aimed to raise local concerns to national and European level. It is also the first time that fishermen have been more widely consulted and involved in decision-making around their industry. Voting on proposals in Committee meetings allowed proposals which fishermen did not

consider useful to be debated and proposals with little support to be rejected. Attendance by fishing representatives in FLAG meetings was relatively high, even during the peak fishing season (as shown in FLAG Meeting minutes). Another important role the FLAG has had has been to build relationships and improve communication between different stakeholders who participate regularly in meetings. For example, the Chairman of the NNFS said:

I sit on FLAG and the chairman of this other lot [Independent Fishermen's Association] sits on FLAG and the chairman of Wells sits on FLAG. So we do communicate through FLAG to a certain degree. We do agree on certain issues and certain issues we don't agree on. But as a rule, on our main priorities, we are agreeing on.

However, although it has enabled better communication and a shared understanding among those who are involved in the FLAG, fishermen who not part of the committee have not benefited equally from this process. In this regard, the IFCA community meetings, which are open to anyone, have the potential to be more inclusive than the FLAG meetings [even if these are also in theory open to individual fishermen]. In addition to these forums, some fishermen are voicing their own opinions directly to organisations such as the IFCA or to windfarm companies.

Being seen and heard: Representation

Policy objectives relating to participation in decision-making usually depend on a process aiming to achieve effective representation (who is involved in decision-making and to what extent). Given the range of interests that exist between fishermen, the legitimacy of their representatives - the authority to represent and their accountability - should not be taken for granted. However, organisations that use and consult representatives – windfarm companies, Natural England, IFCA, FLAG - do not generally challenge the legitimacy of representation. In several cases, however, representatives of fishermen have taken decisions to their organisations for a vote (e.g. recognition of Cromer Crab) allowing all fishermen to have a say. Overall, and in comparison to other regions of the UK, Norfolk fishermen have a low level of representation. For example, all fisheries representatives on the IFCA committee for the Eastern region in the last four years⁸³ work in the Wash (Kings Lynn and Boston) meaning that the crab fishery has effectively not been represented at strategic levels in the IFCA's work. The absence of membership from larger fishermen's organisations also means that local fishermen are not represented nationally or at a European level.

⁸³ In the summer of 2015, two Cromer fishermen were appointed by the MMO to the IFCA Committee.

The role of the NNFS in representing fishermen and acting politically as a single body of fishermen is fairly recent. However, it is important to note the differences that exist within this occupational community, which Chapter Five highlighted. A certain number of fishermen act as representatives for the fishing community in various different forums. Some fishermen are well known in the community because of their presence in the town and reports on them in the media. Rather than a single, cohesive fishing community, smaller groups of individual fishermen working together exist, even within one fishing location, but in relative isolation to other similar fishermen. Different fishermen are in competition with each other and there have been divisions between Cromer fishermen and those from other locations (Sheringham, Overstrand, Wells), between part-timers and full-timers, and between those who have fishing heritage and those who do not.

Power, knowledge and communication

Aside from weaknesses in fishermen's representation, other factors also led to ineffective collective action: poor communication of information by decision-makers and low accountability. The NetGain project was developed for the MCZ identification process, setting some distance between Natural England and DEFRA who held the power for decision-making. Similarly, windfarm companies send representatives to negotiate for them with fishermen and the IFCA refer to DEFRA or the MMO. As Robert said: "That's the oldest trick in the book. Pass the buck innit. 'Defra has told me.... it's not really me, lads', but..." This lack of accountability for decisions is often a feature of multi-governance (Marks *et al.*, 1996). It results in a loss of trust, an important value for fishermen in particular. As the FLAG example shows, once trust is perceived to have been breached, it may be difficult to rebuild support. The mode and process of communication is extremely important. For instance, the FLAG met with the MMO in 2013, in order to make progress and avoid further misunderstandings over funding applications. As Jim told me: "We've been in touch with the MMO and went to Newcastle to meet face to face. It's nice to put a face to name. We feel now that we are going forward."

Barriers to effective participation that the FLAG has faced include the use of knowledge, language and process of communication. For instance, in IFCA community meetings, officials communicate information using acronyms and technical policy language, referring to regulations and policies set at national, European or international level which local stakeholders are not aware of. This issue of the formal or technical language of meetings preventing fishermen from participating in debates was also noted in both the MCZ process and the FLAG (GIFS, 2014; Natural England, 2011). Similarly, the use of knowledge and in particular the policy driven requirement for evidence impedes collective action. For example, research conducted by the IFCA focuses on environmental monitoring; with

social or economic data gathering and evidence building being limited to information gathered by three 'men on the ground', IFCA fisheries inspectors who travel between Lincolnshire and Essex. In practice, this means that weighing up the balance between 'social, economic and environmental benefits' relies mostly on environmental evidence and social or economic impacts on fishermen or coastal communities cannot be properly be accounted for. Furthermore, the absence of evidence often results in delayed action as in the case of IFCA byelaws.

8.7 Conclusion

As discussed in the introduction and in the Conceptual Chapter, the ability to respond to common challenges through collective action is often seen as central to the resilience of fishing communities. While everyday decision-making enables individual resilience to develop, long-term social resilience needs to be supported through institutions (Jentoft, 2004). The number of perceived threats from windfarms, MCZs or nomadic boats, have led fishermen to voice their concerns collectively in order to defend their livelihoods. In particular, Norfolk fishermen have been expressing their motivation to protect the fishery for the future and to show that their fishing is sustainable. However, Norfolk fishermen are generally poorly represented politically and have a low level of economic and social organisation. The level of social conflict between different fishermen, government and other local groups is symptomatic of increasing competition for access to marine resources. These are underpinned by concerns over the state of the fishery, the local industry and the marine environment. To some extent, Norfolk fishermen have increasingly become involved in decision-making, with particular individuals representing the views of the fishing community, usually through the NNFS. For example, some of the Norfolk fishermen -particularly those nearing the end of their careers - have started to act more strategically by making proposals for fisheries conservation measures to the IFCA and attempting to agree on these between fishermen.

However, as this chapter has shown there are many reasons why achieving collective action is difficult. Firstly, there are differences within North Norfolk fishing communities over how resources should be managed depending on their personal interests. These differences are further compounded by a lack of clear or legitimate boundaries over the resource on which to base rules for fisheries conservation or apply certification. There may be scope for finding common ground over shared values and concerns on which successful collective action relies but support is needed through institutions. To some extent the FLAG, has been providing support and the potential for a shared identity and common vision between local actors from different perspectives has been

fostered. However, its outcomes have been hindered by the hierarchical structure set up to administer the FLAGs in the UK. There is also an apparent divide in the worldviews of fishermen and government institutions such as the IFCA, the MMO or DEFRA that govern them concerning fundamental questions such as the place of humans in nature. Although the societal value of fisheries is explicitly mentioned in several policy documents⁸⁴ in practice the conservation agenda takes precedence in decision-making, particularly as political commitments have been made to meet these.

Finally, there are structural limits to the level of agency that can be exercised by individuals and groups at the local community level, due to the multi-level mode of fisheries governance in the UK and the EU. Ultimately, perceptions of mismanagement and of injustice will result in an undermining of any sense of stewardship necessary for ensuring long-term sustainability. As long as the central control of decision-making and vision setting continues, implementing changes to management is likely to be slow and lead to local collective initiatives being abandoned, or potentially to expressions of conflict in the future.

⁸⁴ Cabinet Office 'Net Benefits' Report (2005) or the HM Government Marine Policy Statement (2009) and the DEFRA East Marine Plan (2014).

Chapter 9: Conclusion: Implications for fisheries policy and social resilience approaches

9.1. Introduction

This thesis has examined the role of place in mediating experiences and responses to change in the town of Cromer, where fishing is perceived to be an important but threatened part of the town's identity. Chapter Four provided the context of change in this fishery and Chapter Five explored the ways in which fishermen have experienced and responded to change. Chapter Six focused on the implications of livelihood responses and policy changes for the intergenerational continuity of the fishery were analysed in. In Chapter Seven, I looked at how other groups including residents and visitors experience change in Cromer and how fishing is valued and being contested as part of the place's identity. Finally, in Chapter Eight, I examined the governance processes and institutions that shape how fishermen can respond to change.

In the first part of the conclusion I return to my overarching research question:

“How can taking a place lens help to deepen an understanding of social resilience in coastal fishing towns and communities?”

In the course of this chapter I show how using place as a lens can deepen our understanding of the relational aspects of social resilience and discuss the conceptual implications of this. In Section 9.2, I discuss the main findings of the thesis by answering the questions introduced in Chapter Two. In particular, how can relationships to and within place help to:

- explore the social construction of what is valued in coastal fishing places?
- explain the experiences and responses of coastal fishing communities to change?
- evaluate fisheries governance and the role of institutions for adaptation to change?

I structure this under three broad themes: Social Constructions and Valuation of Place, Experiences and Responses to Change and Governance for Adaptation. In 9.3, I discuss the main theoretical and policy contributions and reflect on some of the methodological implications of this work. Finally in 9.4, I discuss some of the wider policy implications and outline some opportunities for further research.

9.2 Insights from case study: using a place based approach

9.2.1 Social constructions and valuation of place: place, identity and social relations

In order to draw out the implications of change for coastal fishing communities and towns, we first need to understand what places mean to people and how different people relate to place. This is important because it has been suggested high levels of place identity and attachment encourage collective action and lead to greater social resilience (Cox and Perry, 2011). Places are the physical and social settings for people's individual and group identities to form and be performed, and for relationships to be developed (Massey, 1994; Stedman, 2003). Many studies on fishing communities discuss the occupational attachment fishermen have, sometimes described as an addiction and used to explain why fishermen keep fishing even when prospects decline (Daw *et al.*, 2012). Others emphasise attachment to place and the embeddedness of fishing communities in particular places (Ross, 2012). Here I discuss some of the complexities and changes in fishermen's relationships to and within place. I then discuss the relationship between fisheries and the wider coastal community.

Complexities and changes in fishermen's relationships to and within place

Working as a fisherman is strongly linked to particular values and practices associated with being a fisherman. These include: independence, competitiveness, being hard working and enjoying physical outdoor work, flexible working hours, but also trust in the sense of loyalty, reciprocity and solidarity within the fishing community (Acheson, 1981; Van Ginkel, 2001). However, the tension between working independently but also as part of a group is less frequently discussed. As in other fisheries, Norfolk crab fishermen highly value their independence but depending on others is crucial to how the fishing community operates and is responding to change, particularly as working on your own, at least at sea, has become more common. Being recruited to work and being accepted as a fisherman involves a process of socialization into fishing through which one learns from other fishermen. These processes contribute to a fisherman's occupational identity and are grounded in relationships with other fishermen (Chapter Six). Fishing is usually an 'inherited' occupation, at least in the small-scale sector, traditionally passed down from father to son or working with a relative or family friends. Kinship or place ties are important determinants in successfully entering the fishery because of the value placed on trust in the sense of reliability and commitment. This also extends throughout fishing businesses to those employed selling and processing fish. The concept of commitment to fishing and to others in the fishing community was apparent in the Norfolk crab fishery as has also been shown in anthropological studies of fisheries (Symes and Frangoudes, 2001; Acheson, 1981, Ota and Just, 2008). For instance, those who kept on fishing full-time or as their main activity were

considered 'real fishermen' by other fishermen, whereas, those who have taken on another job in addition to fishing (e.g. offshore windfarms) were not. Where fishermen work from is usually used, by other fishermen, to identify distinct groups of fishermen. As Chapter Five showed, the beach or harbour a fisherman works from is particularly important even if the type of fishing and where they fish is similar. This distinction has to an extent been blurred by the fact that fishermen have had to move around due to beach erosion and the lack of other fishermen to work with. However, there are still indications that social identity linked to where a fishermen fishes from is still important.

Fishing communities have been conceptualised as bounded by social and physical constructions of place (Acheson, 1981). However, as a number of studies have noted in the UK, (Ross, 2015; Brookfield *et al.*, 2005; Urquhart and Acott, 2014) fishing communities are more dispersed with very few fishermen living in the same place they launch their boat from. Rising house prices along the coast have also contributed to this. For example, wealthy 'outsiders' now occupy traditional fishermen's cottages. Several fishermen were not attached to the coastal town or village they fished from, saying their motivation for *where* they worked was simply convenience. Others had a high level of place attachment for where they fished and travelled longer than would be necessary if they were solely motivated by practical reasons. For example, some fishermen continue to work from beaches that are more difficult to work from (e.g. Weybourne or Sheringham).

The boundaries of place and identity when working at sea are more fluid than on land. As Carl expressed, at sea is where fishermen become one, not on land (Chapter Five). There is a strong sense of a fishermen's identity and of solidarity between fishermen on the same beach even if they are not friends. This solidarity is indicated through the number of fishermen who volunteer for the RNLI or the Fishermen's Mission. Having the support from other fishermen even if this is often unspoken is crucial. As Helen's quote suggested in Chapter Five, the reliance beach fishermen have on each other has grown now they work on their own. While this may have reinforced group identity through the need of belonging to an occupational community, many important differences exist within it and it would be wrong to think that it is a uniform, united occupational community. Divisions exist even among fishermen who work from the same beach, particularly between those who are considered to have fishing heritage and those considered new to the industry or as part-time fishermen.

A fisherman's identity and place attachment is multi-faceted. Even if fishing is often seen as a way of life – meaning that it is not just a job that you switch off from when the clock turns to 5pm- fishing is

just one part of a fisherman's identity alongside other roles they perform within their families and communities. Factors including age, marital status, and where someone is from have important influences on identity and attachment in addition to occupation. While many fishermen relate to coastal towns they work from through their attachment to occupation, other 'place attachments' fishermen have – for example to their home and family - may be just as or more important (Kelty and Kelty, 2011). This has implications for social resilience where place attachment is predicted to be important in responding to change.

The small-scale Norfolk crab fishery is tied to the locality broadly within which it occurs. However, the dispersed nature of the fishing community throws into question how a 'fishing community' can be defined in a particular place. Given that the 'fishing community' is also part of a wider community, it is important to consider the place as a whole with the range of people that live there and the activities that occur within it. In the next section, I focus on how local residents and visitors relate to fishing places, and then discuss the relationship between visitors, residents and fishermen.

Relationship between fisheries and the wider coastal community

The role that fishing plays in sense of place has been highlighted in the UK and Europe through EU funded projects (CHARM and GIFS) aimed at valuing the cultural and social contributions of fisheries (Urquhart and Acott, 2014; Acott and Urquhart, 2014). This research found, as I did in Cromer, that representations of fishing are often found in public spaces and local festivals, which reinforce their fishing identity. Belonging to a distinct place is important for human well-being and fishing can be a source of common identity for a range of people even if they are not involved in fishing. In Chapter Seven, I demonstrated how some local people and visitors feel about the fishing industry and express their allegiance to fishermen.

Residents and visitors were generally positive about the local crab industry even if they did not consume seafood indicating that the crab fishery is valued for more than simply food production. The fishery was perceived to be small-scale and traditional, and its fishermen hard working local people who should be supported. Crab fishing boats were not generally mentioned by residents and visitors in open questions about how people personally relate to Cromer, but this was the most frequently chosen image to represent the town. This indicates that Cromer is collectively and symbolically identified with crab fishing. In Sheringham, which has experienced a significant decline in fishing activity over the last decade, representations of fishing as heritage are far more prominent

than in Cromer. Places and their identity in relation to an activity such as fishing can be sustained long after it ceases, as found by Nadel-Klein (2000) in Scotland and Canada.

However, there were many differences in what different places meant to different people. For instance, local residents valued the postcard of the empty long beach in the winter while visitors identified more with typical holiday scenes. It is therefore important to consider the role that fishing plays in the construction of a place's identity in the context of other identities. As I noted in Chapter Seven, the relationship between fishermen and visitors or recent local residents could on occasion be tense. How fishermen relate to fishing places is now increasingly through occupation, rather than as a place based community. Increasingly, 'outsiders' have bought property to settle in Cromer either as their main or second residence. Concerns that newcomers wanted to change Cromer were commonly expressed by local people and fishermen. The place literature talks about how people tend to want to make a place their own as part of the process of belonging somewhere (Proshansky *et al.*, 1983). While fishermen relied on selling their catch to visitors and residents, and generally enjoy talking about their work, they often perceived a lack of respect and understanding by certain visitors or locals for what they do. There was some suggestion that Cromer fishermen go fishing early in order to avoid people. Several examples were given in Chapter Seven of how newcomers are attempting to change the place (e.g. regulating noise from tractors) and other conflicts over place have been manifested between divers and surfers with fishermen. So while many residents express allegiance to the fishermen, some may have other ideas about how Cromer should be. The fact that fishermen are relatively defensive over their fishing beach highlights a potential threat that is felt from external influences. It reveals a potential difference between what local people and fishermen value and what newcomers do which has important implications given the growth in second homes and holiday lets in the town.

Dynamic nature of place meanings and identity

Place meanings are dynamic, constantly being negotiated, reinforced and superseded by others (Massey, 1994; Manzo, 2005). Constructing place identity can also be shaped by local government objectives such as encouraging tourism, the media or businesses prioritising certain messages to the public. This is particularly the case in places where new industries are developing or where demographic change is occurring through mobility. As Massey (1994) argued, local constructions of sense of place are linked to global processes of change. Through globalisation, we also become connected with an increasing number of places. This has implications for place attachment because it means that people can also have deep attachments to places and value them even if they are not

local to an area. In other words, places are shaped by external influences, as well as through local interactions between people and place. In this respect, the relationship between tourism and fishing is important. The Cromer crab fishery grew with the number of visitors attracted to the coast in Victorian times and now continues because of the value placed on it by visitors and locals.

As other studies have found place meanings and attachments can be deeply rooted in such a way that a person is not consciously aware of them. For example, people who have lived somewhere all their lives may not realise how they feel about a place until it is threatened (Cochrane, 1987). Given the tensions I have discussed in this Section over what a place can mean for different individuals and the dynamic nature of place meanings, understanding the social impacts of changes to a place's identity - for example through a loss of fishing activity - is highly complex and cannot be taken for granted. This raises questions about how relationships to and within place can – on their own- be understood to contribute to collective responses to change and social resilience.

9.2.2 Experience of and responses to change

Experiences of change

Fishermen have faced a number of changes: a gradual decline in their fish stocks, progressive changes to the demographics of the coastal communities they work in, as well as more marked periods of difficulty including market crises, fishery and marine conservation policy reforms. Other influences on the coastal economy include the growth of coastal tourism and the development of Marine Spatial Planning where activities and businesses are planned in the marine environment for recreation, conservation, and offshore wind energy.

Fishermen and their families have experienced change through a sense of being 'pushed out' and feeling marginalised. This is a result of fisheries policy and regulations aimed at every aspect of fishing businesses from the point of catch to processing and sale. Increasingly, fishermen have felt powerless in the face of change around them and have absorbed extra costs associated with regulations relating to health, hygiene and safety. In addition to changes in the fishery there have been important socio-economic changes in Norfolk. As several fishermen around Norfolk commented, they walk past empty holiday homes while their children cannot afford to buy houses where they have grown up. These changes and growing inequality have resulted in different relationships in place and within place and particularly the relationship between the fishing and local community. Several of the older fishermen talked of broken up communities (Chapter Seven) and of

people who weren't real locals being in charge which further contributes to a sense of marginalisation.

While fishermen recounted the number of changes that have occurred in their fishery and coastal communities in North Norfolk, most residents and visitors characterised Cromer as a small town where nothing much changes and where things carry on. The town is considered a place of stability, tradition and heritage and is valued for these aspects. The fishing community in Cromer, even if it has been somewhat reduced, still operates and provides an important sense of identity and place distinction valued by residents and visitors. The nature of this activity as a small-scale, cottage industry seemed to be valued in parallel with the independent shops and cafes in Cromer. The Victorian architecture was often used by visitors and residents who I spoke to, to illustrate this stability and the timeless character of Cromer. The high street and coastal erosion were used as examples of what may conceivably change. However, as a quote in Chapter Seven expressed, people have noticed how other towns and villages are 'losing their identity'. People are increasingly conscious of the loss of control over place through globalisation and their limited ability to influence processes of change that are linked to global influences, including markets, climate change and policy (Perkins and Thorns, 2012). How change is experienced has had implications for how different individuals have responded to change.

Resistance

The high levels of public support raised in order to 'Keep it Cromer' prior to the closure of Young's Cromer crab factory is a testimony of reactions to a perceived loss of identity associated with fishing (Chapter Four). The reaction to the closure of the Cromer Crab factory was one of resistance with petitions and street marches attempting to overturn the decision for Young's to relocate to Grimsby. This has parallels with the resistance to the supermarket Tesco's opening in Sheringham for 17 years. The fact that Cromer is perceived by many not to have changed or at least that its identity has been maintained may be taken as a sign of resilience - maintaining function and identity while undergoing change (Walker *et al.*, 2004). This timeless nature of Cromer is appreciated by many of its residents and visitors because it provides stability and continuity. This is a valued characteristic because it provides a counter narrative to changes perceived to be occurring more broadly in society (e.g. small towns and villages losing their place identity as large retailers become established). However, the resistance to change that this engenders is also found to constrain development by others. Tensions over place are becoming increasingly important particularly due to the changing demographics in the town and also economic developments (e.g. wind farms), which are modifying

the social construction of place identity. If the crab fishery is an important part of the identity of Cromer, then looking at how resilient this fishery is to change is necessary. I now focus on the livelihood responses in the fishing community.

Responses to change in the fishing community

The main types of change Norfolk fishermen have responded to, which have altered the nature of working as a fisherman, have been economic. This was most markedly expressed by the older fishermen who remember shipping off their live crab on the railways to London. Today, fishermen often cook, process, deliver and sell their catch making a day's work longer than in the past. Over the last three decades in particular fishermen have made decisions about expanding or downsizing their businesses in order to improve their income. Individual crab fishermen have responded to change in many different ways, but as Chapter Five showed, fishermen have responded at individual or household level rather than collectively as a group of fishermen. Their strategies can be categorised as 'getting by' or 'getting out', the individual end of Lister's (2004) agency framework. This is characteristic of how fishermen have always worked in the area where even fishermen who were related did not habitually purchase gear or sell their catch collectively, but instead acted as independent businesses. By far the most significant change to the fishery has been the move towards single-handed boats as a cost saving strategy and the decline in numbers of fishermen. It has had serious implications for how fishermen work and where they can work from. Mobility was identified as a strategy to cope with the geophysical changes to many beaches in Norfolk but also as a way to cope with declining numbers of working fishermen. This has resulted in a concentration of crab fishermen in Cromer – one of the only parts of the coastline that is protected [under the Region's Shoreline Management Plan], making it one of the flattest and easiest beaches to work from. Another strategy being used is part-time fishing even if there is a stigma attached to being part-time making belonging to the fishing community more difficult. It has allowed fishermen to take up regular employment with more stable income alongside fishing. While this strategy could be seen as desirable from a government perspective, as a way of encouraging diversification out of fishing, it is also more difficult to keep control of who is working as a commercial fisherman and creates feelings of injustice between fishermen.

The strategies fishermen employ to adapt to change are multiple and to a combination of threats and changes. Because different strategies are used simultaneously, fishermen's responses cannot be categorised as dichotomous in terms of 'getting by' or 'getting back' for instance or as 'diversification', 'expansion' or 'retrenchment'. This can be misleading and oversimplify the

dynamics of livelihood adaptation. Livelihood decisions are not taken by the fishermen alone but often require close relatives (male and female), and friends to make commitments to work in the fishing businesses particularly when this requires employing crew or staff for processing and selling crab. Choices concerning livelihood depend on lifecourse, the fisherman's household and to an extent personal preference (Chapter Five). Age and marital status will affect the level of support available from family as well as the level of financial and familial responsibilities. Increasingly, mortgages and childcare influence fishermen's choices. Fishermen are increasingly involved in family life and expected by their spouses to contribute their time to duties at home. Furthermore women in fishing families increasingly have a career of their own which often provides another income to the household (Chapter Five). Some choices are simply a matter of personal preference. For instance, several fishermen chose not to process their catch even though they could gain a higher income doing so. It is therefore important to recognise that how fishermen respond to change is based on many different factors and includes personal preference. In particular, social connections, flexibility and opportunities are crucial in such decisions.

Social relationships and connections

While I have explained that responses to change are generally individual, these responses are social in the sense that they often depend on support from family and relationships with others within the wider fishing community. However, fishermen have not come together and agreed on a collective response. Rather, each fisherman operates a separate business with its own strategy and set of priorities. Nevertheless, it is apparent that the resilience of the Cromer crab fishery also depends on the resilience of other parts of the fishing community distributed throughout the Eastern region. Relationships within the fishing industry shape how the fishery is organised and informally structured across the region. These relationships are noteworthy in terms of fishermen supporting each other and particularly for accessing markets. A fisherman in Norfolk will supply others in the region if their catches are low, for example, so that they may continue to sell to their customers. It is a connected industry in some ways with one fishery supporting others. Because of this, changes to one fishery nearby may have knock on impact on others. For example, the decline of the Lowestoft whitefish fleet over the last decade has had consequences for Cromer and other beach fishermen. Lowestoft has the last remaining fish auction in the region - which is likely to close down in the next few years - and was a hub for all kinds of supplies and services for fishermen. As secondary sectors related to fishing have declined fishermen in the East of England, fishermen have to find other means of equipping their boats and find other buyers, which may result in further expense. A further consequence of this may be an increased reliance on the Internet and mobile phones as a way for

fishermen and related businesses to remain connected as fishermen become more dispersed geographically.

Flexibility and opportunities

Fishermen are in a sense naturally resilient to change. From early on, they expect the unexpected and learn to deal with uncertainty and fluctuations in the fish stocks, market demand and in the weather (Binkley, 2000). They have little control over how often they will be able to go to sea or what their catch will be like. Responding to change in the past relied on flexibility. Every day – regardless of the weather forecast – fishermen will stand waiting on the beach assessing the situation themselves and weighing up the risks of going out that day. Fishermen have different ways of coping with change but most rely on flexibility: fishing for other species in the winter, spending time improving their gear or doing work on their boats during the low season (Allison and Ellis, 2001).

While fishermen understand nature and the sea to be constantly changing, government and civil society impose a view of nature being fixed which does not tally well with resilience thinking (Symes *et al.*, 2015). As Helen noted in Chapter Eight, fishermen have a great faith in nature. They understand that some years will be bad and others better and that to a great extent this is out of their control (see the discussion of crab stock fluctuations in Chapter Four). This approach is vastly different to the one taken by policy makers who use measures that assume a more static environment – for example, the MSY target or Marine Conservation Zones. The data used by fisheries scientists – often due to time and funding constraints- also fails to capture the dynamic nature of marine ecosystems. For example, estimates, which may not be taken *in situ*, are used to evaluate fish stocks. For instance, growth rates currently used in models are applied across the country even though the Cromer crab, which is smaller, may have a different growth rate. Spatial and resource mobility is an important strategy for responding to environmental changes. However, fishing licenses have reduced the flexibility of what small shellfish boats can catch. License conditions do not change even if shoals of herring suddenly appear off the coast, as has been reported over the last few years (Chapter Four). When it comes to marine environmental or fisheries management, boundaries tend to be fixed as though sea life were static. The flexibility and the options available for fishermen's responses have been eroded by the institutional framework in fisheries governance which has become more restrictive, and top-down.

Trade-offs and consequences of livelihood adaptation

In the Cromer fishery, some fishermen have left but those still fishing may be considered 'resilient' if this is interpreted as persistence in the face of change. However, the outcomes for different fishermen vary. Within those coping with change, in the 'getting by' category, some may be doing very well and others struggling. Some fishermen are working longer hours than in the past, or on their own rather than as part of a crew, which is more dangerous when at sea and more mentally challenging (Chapter Five). As one of the fishermen reflected 'you get used to it'. This indicates how livelihood adaptation can often also involve adapting expectations or preferences people have about their lives and risk perception. As Coulthard (2012) asked, is it possible to "be resilient and well?". Trade-offs may have to be made between livelihood adaptation and personal or family needs. For instance, for fishermen with a family, the choice of livelihood adaptation strategy involved trade-offs at household level between a potentially higher income with more uncertainty (expansion) or reducing risk and costs but with lower earning potential (downsizing), or increasing income stability through stable employment (part-time fishing). Adapting to change clearly involves choices that have important implications for family.

The strategies employed by a group of fishermen can have social, economic and environmental trade-offs, positive or negative for other individuals or groups. This raises the question of what happens when there are social costs to adaptations to change made by certain individuals. In Cromer, fishing single-handedly means that fisherman tend to fish less but more selectively focusing on quality rather than quantity (Chapter Five). This is positive in terms of environmental sustainability however, there may be other unintended trade-offs which result from this strategy. For instance, the changes fishermen have made to work on their own have reduced opportunities for other fishermen to join the fishery. While this response has been essential for fishermen to continue making a living from fishing, it has closed the door for new fishermen to train and learn, as current fishermen would have done. As I discussed in Chapter Six, the lack of young people entering the beach crab fishery is considered to be one of the main threats to the continuation of the fishery and poses important questions for understanding social resilience as enabling continuity in the immediate or longer-term. The intergenerational aspects of adapting and responding to change are a type of trade-off which has not commonly been considered in the social resilience literature.

'Getting together' and 'getting back at'

While most of the responses to change in this section have been individual, Norfolk fishermen have been showing signs of more collective forms of action. I am reluctant to call this 'collective action' as

these are closer to the 'getting back at', reactive end of Lister's model rather than 'getting together'. For example fishermen from Wells have attempted to get more compensation from offshore wind energy companies, which required them to keep from fishing certain grounds. Fishermen have attempted to propose measures to the IFCA for improving fisheries governance. However, there have been huge disparities in how different fishermen would like to see the fishery managed and what is acceptable to whom, which makes it difficult to adopt the 'getting together' response. In addition to this, divisions between fishermen, as alluded to in 9.2.1, mean that coming to an agreement may be difficult from the start. I discuss how more collective forms of responding to change have influenced governance in the next section, particularly in terms of participation in decision-making.

9.2.3 Governance for livelihood adaptation

The role of institutions in mediating access to resources, including the capacity to be flexible and take up opportunities, is central to social resilience and responding to change. As I explained in Chapter Two, institutions set the rules determining access to resources. They also establish the normative basis for governance: the goals to strive for, how things should be; and shape the cultural-cognitive basis within which governance takes place: the common meanings and representations of reality. As I also discussed, resilience in natural resource governance is often expected to be improved by devolving responsibility and management to the local level and through encouraging participatory decision-making.

Disconnected multi-level governance

Some of the social resilience literature argues that collective action can enhance adaptive co-governance (Lebel *et al.*, 2006; Olsson *et al.*, 2004) and that the role of government institutions should be to enhance community capacity for self-organisation (Davoudi, 2010). However, as I explained in 9.2.1, collective action is often problematic and cannot be relied on to enhance social resilience. Most responses to change are at the household level with a strong reliance on family, fishermen often draw on informal social relations and organisations in the fishing community at large. Because the fishing industry is connected across the region or even further afield, changes in one fishery or restrictions on particular groups can have adverse and unintended social and environmental consequences for those working elsewhere. Deep-rooted issues such as recruitment into fishing cannot be left for the fishing community to solve. The involvement of formal institutions, which have a strong influence on access to resources and adaptive capacity, is required. Furthermore, a role of government institutions is to minimise and compensate any negative social

and economic impacts of one policy onto particular groups (Walker, 2004). For instance, pressure on crab and other shellfish stocks has increased following restrictions placed on the whitefish industry. Clearly then, building social resilience in the longer term requires institutions to have an overarching view. However, at the same time, while many of the impacts on fisheries originate from national or European level policies, solutions to build resilience and enable responses to change are usually most effective at a local level. This is what the FLAG programme was aimed at – finding a ‘middle way’ (Phillipson and Symes, 2015). Unfortunately the success of this programme was hindered by control and bureaucracy at the national level.

In Chapter Eight, I explored how fishermen participate in decision-making as part of institutions, the agency fishermen have and the extent of collective action in this fishery. Fishermen not only feel that they are being pushed out but also that they are unable to influence decision-making. It seems to them that rules are imposed on them and set far away from where they work by people who do not understand their livelihoods and that this impedes their responses to change. Chapter Five and Six showed how some of the characteristics and issues related to the future of the fishery are situated at local level: e.g. the way that the fishery is organised, or the ways of learning and getting employment in fishing. This contrasts with how fisheries governance is organised (situated at the regional, national or even European level) paying little attention to these local interactions (Chapter Eight). The growing disconnect between national policy and local objectives is increasingly observed as well as a growing feeling of inequality in Britain. The result is a low level of agency particularly at the collective level for fisheries. So while fishermen have responded and adapted to change as the previous section discussed, their agency has been increasingly constrained particularly by government institutions, particularly in their capacity to act together.

Participation or consultation?

There has been a recent institutional and policy reform in marine fisheries governance in the UK and the European Union where including stakeholders in decision-making is emphasised. First of all, this has meant that the number of people or groups with an interest and voice in the marine environment has expanded. Fishermen are competing for space with wind farms and MCZs but also with surfers, sea anglers, birdwatchers, dog walkers, and holiday-makers. Increasingly the participation of civil society is being sought by government institutions to make decisions about the future of the coast and its marine resources. In the UK, fisheries governance has long been top-down government. Fisheries institutions make decisions about the rules and norms for certain issues while taking little responsibility for others. For example, issues such as encouraging new entrants into

fishing or negotiating compensation for fishermen as a result of offshore windfarms has been delegated *de facto* to the fishing community and civil society, or to the private sector respectively. In both these cases, fishermen have been dealing with the knock-on effects of government policy on their livelihoods but with the absence of government involvement and support to mitigate the social and economic consequences of their policies.

Participation in decision-making can occur at different stages, from deliberating on objectives, to the detail of technical measures to be put in place (Gray, 2001). Currently, despite the claims made by government institutions responsible for inshore fisheries in the East of England, fishermen do not participate in decision-making at either of these stages. This was clear in the examples given in Chapter Eight concerning the establishment of wind farms, MCZs and debates on fisheries management measures. For instance, I showed that conflicts between fisheries and wind energy or other marine developments are not fully evaluated and the government takes no responsibility for consequences for social impacts which is for the energy companies with marine licenses to deal with. In the case of MCZs, fishermen representatives took part in what appeared to be participatory mapping but where the features to be protected were already selected limiting the potential for debate. Instead this resulted in defensive attitudes being adopted by fishermen and other interest groups (Pieraccini, 2015). Finally, while the IFCA has met repeatedly with crab fishermen to discuss fisheries management measures, this clearly resembles more of a consultation and information gathering exercise rather than co-management. The emphasis on evidence based decision-making – and thus information gathering – is hindering the adoption of a precautionary approach to address fishermen’s concerns over the sustainable exploitation of their resources.

Discourses of fisheries management

Over the last decade discourses on fisheries management have been shaped by a conservation agenda set through international and European agreements, where the narrative is of empty seas and a need to restore and regenerate fish stocks. Biological concerns have been given primacy in fisheries governance in the UK. Some of these discourses have been put forward and developed by civil society groups operating at national and European level. There are no equivalently influential groups for small-scale inshore fisheries in the UK or at European level. Furthermore, institutions such as the IFCA or Natural England tasked with conservation and fisheries management are bound by national or European objectives such as achieving Maximum Sustainable Yield for all fisheries by 2020, achieving ‘good environmental status’ or establishing a network of MPAs, reducing carbon

emission and growing the 'blue economy'.⁸⁵ The cultural and social value of fisheries is also recognised, particularly for its contribution to the tourism industry (see DEFRA, 2014). However, national agendas are dominated by the targets for conservation and maritime economic development. These objectives shape the work programmes and funding of government agencies which prioritise the collection of data and evidence, for instance focusing on nature conservation. Issues such as inshore fisheries management are low priority and a lack of data means that any action is delayed. The absence of social and economic data in fisheries clearly demonstrates this, as does the absence of any local level impact assessments (e.g. MCZ socio-economic impact assessment). This poses important questions around how places are valued, for what, by whom and what this means for the future which were explored in the thesis.

9.3. Theoretical and methodological contributions

9.3.1 Implications for social resilience and governance

Disaggregating social resilience: Understanding diversity in social systems

The social resilience literature has emphasised social capital and collective action and in particular place attachment and identity as important factors in research on adaptation to change (Norris et al., 2008; Cox and Perry, 2011). However resilience, when it is applied to social mechanisms, needs to take account of the different values held by different groups and individuals adapting to change in particular places. As examples from my research show, the relationships to and within places are sometimes complex and unexpected. These kinds of relationships are dynamic and evolve over space and time. If relationships to and within place are key to being able to respond to change, then social resilience needs to also be understood as subject to the same influences. In particular, my research has highlighted the number of different ways people relate to and value places, and the tensions that arise due to these differences. Collective action is often problematic due to differences between individuals. For example even if individuals within a community have a common identity, each individual also has different identities and these may conflict with those of others within the group (See 9.21). This is particularly important for thinking about governance and what kind of issues should be devolved to a community or to certain representatives of a community. While fishing communities can be said to have a common identity based around fishing, it does not necessarily follow that they are tight-knit and rooted in place, and will as a consequence engage in

⁸⁵ EU (2014). Innovation in the Blue Economy: realising the potential of our seas and oceans for jobs and growth. COM(2014) 254 final/2

collective action. Understanding the level of social cohesion and degree of organisation is essential to understand how fishing communities might respond to changing policy. Relational aspects of resilience linked to social identity shape how groups (e.g. fishermen) respond and act over issues of fisheries governance.

Winners and losers: whose resilience and well-being?

Social resilience is usually applied to a social unit such as a community, whereas livelihood adaptation strategies have long been recognised to be at the household level. The social resilience of fishing communities has focused on the capacity for collective action. This places the emphasis on communal aspects of resilience. It has tended to ignore individual and household agency and how this is constrained or enabled by structural mechanisms. The process of responding to change necessary for social resilience results in trade-offs; in winners and losers. However, social resilience work often downplayed the trade-offs that are often involved in responding to change and intergenerational issues of resilience. Tensions may exist between individual adaptation and being resilient today, or being resilient as a community in the future. As my research showed, individual resilience can have a social cost and impact on the community's resilience. There are important questions to address concerning the inevitable trade-offs of resilience when it is applied in practice.

Normative questions: a need for deliberation and the politics of resilience

The political implications of resilience are increasingly being recognised with questions being raised about whose values count (Cote and Nightingale, 2012; Fabinyi *et al.*, 2014). As I found, objectives being set at European and national level may not resonate with the values of those who live and work in fishing communities. Resilience is perhaps unavoidably normative. Different interpretations may emphasise resisting change while others would encourage transformative change, thus maintaining essential characteristics. In my study I found that experiences and perceptions of change varied, with some place-based changes being perceived by some and not by others. This is important because it may mean that some changes are resisted while others go unnoticed. It is often only when people reflect on the past that they realize what has changed. This may be partly to do with human nature seeking stability and continuity. Resisting or denying change – which is expressed as undesirable in resilience literature - may serve important functions for well-being. Thus there are important questions about what should be left for future generations.

Understandings of resilience have important implications for institutions where norms and goals are set. This raises questions about whether social resilience is a useful concept for policy if it is used

without a socially differentiated consideration of a community's aspirations. Without debates over what is being sustained, preserved, or encouraged to change or adapt, resilience may be sought but result in unintended consequences. As Amundsen (2013) and Coulthard and Britton (2015) raised, community resilience can sometimes be an illusion which masks vulnerability. In Cromer, many visitors and residents consider that fishing and place has not changed. Although tractors are now used to pull boats up on shore and material for building boats is fiberglass rather than wood, the essence of crab fishing has remained. The number of fishing boats on Cromer beach has been relatively stable but is due to the mobility of fishermen from other beaches and due to the fact fishermen operate boats on their own. If resilience means responding to change while maintaining identity and function in the immediate term, then this fishery may be considered resilient even if it is in fact vulnerable and its future is uncertain. In this respect, spatial and temporal scales need to be considered: resilience of what, for whom, where and when?

Overlapping social, ecological and political systems

The spatial dimension of social resilience – for whom, where - also relates to having clearly recognisable boundaries. However as I showed in this study, neither the boundaries of the social system, nor the ecological system are clear cut. Furthermore, the areas of jurisdiction and responsibility of different institutions are often arbitrary and bear little resemblance to the boundaries of the social or ecological systems (Cumming *et al.*, 2005). A long standing criticism of coastal governance, as shaped by government institutions for example, is that it separates the terrestrial from the marine environment. Similarly fisheries governance often misses the social links between fishermen, their activity and a wider community who benefit from fisheries but never go out to sea. This issue is an important challenge for studies and applications of resilience where the spatial and temporal scale of resilience needs to be questioned and explicitly defined as far as is possible.

9.3.2 Methodological implications and limitations

My research is based on a single case study, focusing on one fishery and uses mostly qualitative methods. Having several case studies can allow for comparison and contrast, which may result in additional insights being made (Yin, 2012). However, a single case study has allowed a more in depth account to be made, which may be compromised when several cases are included in research. While a qualitative case study produces a richer understanding, it can limit the extent to which findings are generalizable or replicable elsewhere. This may in part be why – along with time constraints – social impact assessments tend to use quantitative methods and data. However, I argue that while some of

the findings are limited to the particular context of the case study, many of the policy implications from my case study are relevant to other fisheries elsewhere (discussed in next section).

In order to generate a broad range of insights, I used a range of qualitative methods combined with an analysis of secondary data sources. I used a mix of structured and unstructured methods with in questionnaires and in some of my interviews. For example, in my questionnaire with residents and visitors I asked open questions about place allowing word associations to be generated. Using more structured questions and using photos, allowed different kinds of data to be collected about specific places. In addition to this, in depth interviews with fishermen in particular provided a deeper understanding of experience and responses to change. For instance, while identifying how fishermen have responded to change may be relatively straight forward, understanding why certain responses have been selected and what their consequences are, requires a more in depth approach. The approach taken, using concepts of place, change and identity was broad yet meaningful enough for people to discuss experiences and responses to change, perceptions of policy and governance from the local level to national or European level. This helped me identify connections not only across governance scales but also within the fishing and coastal community. It further allowed societal concerns and the implications and trade-offs of certain policy measures on different groups to be highlighted.

9.4 Implications for policy and further research

9.4.1 For fisheries and marine coastal policy

The main conclusion from this thesis in terms of UK fisheries and marine coastal policy is that it is currently not holistic enough and does not consider the context and places where fisheries occur. The focus of debates in policies on fisheries still narrowly focuses on managing the natural resource, and on the assumption that by limiting or reducing fishing pressure, individual fishermen and fishing communities will be more profitable or better off in the future. This approach does not question whether fishermen will be there in the future when the resource 'recovers', and what will have been lost in the meantime (knowledge, culture and heritage). However, it is far from clear whether after a period of contraction, the industry will still be able to attract and recruit fishermen who could reap the benefits when stocks recover. In recent years, there has been increasing focus on meeting environmental targets and global agendas in terms of reducing biodiversity loss and tackling climate change without thinking about the particular social and cultural functions of fisheries for coastal towns and villages. Social problems in fisheries are left to fishing communities to address without

consideration of the impacts for policy and regulation, which have undermined the ability of fishing communities to respond to change. I discuss some of the challenges for fisheries policy and end by focusing on one example from my research, which has important implications in terms of the future of inshore fisheries: the issue of recruitment. This example illustrates the connections between people, place, and social resilience.

Considering local level social impacts

Different policy discourses in fisheries have resulted in significant changes to fisheries and the places they are located and associated with. As I have reflected in this chapter, the kinds of changes coastal communities are exposed to are increasingly wide ranging and originate from global influences. Leaving solutions up to local communities is therefore unrealistic, because they cannot on their own address the external influences that are the root of these changes. However, building resilience and responding to change needs to occur at the local level where it is most relevant to the needs of people. Therefore the challenge is to achieve a balance between enabling rather than restricting capacity for local communities to respond to change, while also acting on some of global issues I mentioned. Fisheries institutions such as government departments who develop policy are best placed to evaluate the consequences of one policy on another part of the Social Ecological Systems. However, this requires appreciation for the connections within the fishing industry. In order for capacity to be enhanced at a local level institutions responsible for coastal and fisheries governance need to better understand the social dynamics of these communities. Currently this is not the case due to the limited contact between these institutions and those they govern. There is often a clash in culture between fishermen and government agencies. This would need to shift in order to build better understanding, trust and ultimately better governance. The current institutional framework of fisheries is what fishermen find most affects their capacity to respond to change.

A further challenge is the need to expand who is included in coastal and fisheries governance. Increasing recognition has been attributed to the fact that people who are not local to an area can also have deep attachments to it and value it. Growing research on ecosystem services, human well-being and resilience are testament to this. This has resulted in broadened perspectives for participation in decision-making for instance in terms of coastal planning (e.g. SFCs changed to IFCAs in 2010). However, there is still a need for more meaningful engagement with local people, which currently resembles basic consultation at best. There is a need to understand what local people need and value today and in the future, which may involve different objectives for different groups. Unfortunately funding for the institutions closest to the local level (e.g. Eastern IFCA) has been

reduced and is due to be reduced further from 2016. This is likely to heavily constrain the level of community engagement work or social data collection, particularly when other work such as conservation activities are given priority. Symes and Phillipson (2009 p.2) asked in their paper on social objectives in fisheries policy, "What is it about fishing communities that makes them a crucial yet vulnerable asset for the future of the fishing industry and coastal regions?" Answering this question requires investment in social science research. This will need to be set as a priority by national government, particularly if social objectives of policies are to be met. One challenge is that many of the benefits of small-scale fisheries are unmonetised and unquantified and therefore left out of policy and management objectives. Not answering this question may mean a loss of fisheries in coastal regions and the development of other industries in their place. This could potentially lead to social and economic problems, as has been the case in Lowestoft and Great Yarmouth. It requires an assessment and open discussion over what is sustained and what is not. For instance, if the impact of a policy to achieve Maximum Sustainable Yield in fisheries leads to the reduction of a fishing fleet, to a point beyond which it cannot sustain itself, this may result in a loss of place identity, culture and local knowledge.

Fisheries recruitment and social resilience

If the continuation of the Cromer crab fishery is important for the town of Cromer and more broadly for the region, then addressing the issue of recruiting new fishermen is crucial. This problem is one that is recognised across the UK, however so far no national policies have attempted to tackle it. Access has become more restricted through a lack of initial job opportunities and the rising costs of owning one's own boat. Making a living from small-scale fishing has become increasingly difficult.

In the past access to employment in fishing was mediated through relational mechanisms implicit in networks of fisher households, fishing crews and fishing communities. However, social reproduction of fishing businesses has been progressively undermined through a combination of social change and regulatory intervention. Fishermen's sons are increasingly pursuing other careers. In the future, as long as the resource and demand for crabs remains, more potential recruits may come from outside the fishing or local community. In an increasingly mobile world, the potential for new recruits to come from further afield is real and has been observed historically (Miller and Van Maanen 1982; Symes and Frangoudes 2001). However, migrants as well as young men not from fishing families are likely to face a number of structural, financial and attitudinal obstacles to accessing employment in rural industries, although they may also be more determined (de Lima and Wright 2009). Unless conditions of access for local recruits are improved, the long-term future of

beach-based crab fishing will remain bleak. While the present generation of North Norfolk crab fishermen recognises the extent and possible consequences of recruitment failure, finding a solution is perceived to be outside their control. However, encouraging long-term recruitment in the industry may require a recognition that individuals may come from a larger geographical area, which would require broadening the scope and support of any future initiatives.

Furthermore, attention should be paid to the demographic component of fisheries and the particular nature of recruitment to different types of boats. For instance, more opportunities for young people may exist on larger boats, but may involve shorter careers while fishermen may continue working into older age in a beach boat fishery. On the other hand, access for young people into the beach fishery has been limited by the move towards one-man operations that continue to fish into retirement age. Any policy intervention must be careful not to only incentivise recruitment onto larger boats, but to also address the more difficult recruitment issues of smaller boats. In Norway for example, a youth quota has been implemented with some encouraging signs (Power, 2012). This could be designed to respond to the particular demographic context of different fisheries.

So far the scope for policy intervention is strictly limited and confined largely to financial assistance. While funded programmes for training have attempted to facilitate recruitment with European and charity funding, the major pinch points in the recruitment process remain: entry into fishing employment and boat acquisition. Overall, they have not improved recruitment into fishing. The new EMFF from 2014– 2020 provides financial assistance through Article 29 for apprenticeships and Article 31 endorses start-up support for young fishermen with at least five years of employment in the industry. However, the recruitment problems in the North Norfolk crab fishery cannot wholly be solved through technical fixes, and sectoral approaches alone are likely to be too narrow. Parallels between fishing and farming suggest a wider crisis of youth employment in rural areas and a disinterest among young people in rural jobs (Bjarnason and Thorlindsson 2006). As Johnsen and Vik (2013) concluded the issues around recruitment in fishing are also connected to challenges in the wider coastal rural economy. Occupational plurality and seasonal employment could be supported through policy as they have been elsewhere (Power, 2012). Initiatives building on those such as the FLAG, which will in the future be required to develop integrated multisectoral strategies for local fisheries related development may be more successful (Phillipson and Symes 2015). As this research and the particular example of recruitment has shown, assessing fisheries through a mixed methods case study approach can contribute to identifying some of the challenges for fisheries institutions, which need to be addressed at different levels of governance.

9.4.2 Opportunities for further research

If the study could be extended, interesting comparisons could be drawn between the beach boats with harbour boats, particularly from Wells-next the sea, which has the second largest concentration of crab boats. Similarly, comparisons could be made of this fishery to other types of fisheries in the region or a similar fishery in a different region. More specifically, I identify three further areas of potential research.

Social networks, access to markets and social resilience

Other areas of interest, which arose during fieldwork, included the role of women and other family members in processing. This appears to constitute a wide social network connecting fishermen and their families to local businesses across the region. I would have liked to explore the contribution of those working within the fishing sector on land to the resilience of this fishery. I studied how the access into fishing is limited and the challenges of becoming a fisherman today. However, other mechanisms of access mediate how successful new fishermen are once they have their own boat. For instance, accessing markets is likely to be an important factor. As the main customers in the region are likely to have already been taken up by existing fishermen, new fishermen may need to create new market opportunities. The role of relationships was found to be important in determining where crabs are sold and establishing a customer base is important for the resilience of fishing businesses. These dynamics in networks related to markets could be mapped for instance using social mapping tools or social network analysis. Furthermore, new opportunities can be identified or created by new fishermen for instance through certification and thus emphasising sustainability and provenance. The role of food labelling for the Cromer Crab in increasing or constraining resilience is another topic, which could be further explored.

Marine governance and environmental justice

The ways in which the marine environment is considered in planning and development has changed particularly with the 'Blue Growth' agenda which has created tensions with the marine conservation agenda. Interestingly fisheries are not included as one of the activities for Blue Growth, despite the MSY policy agenda. The development of marine activities from offshore renewable energy to gravel extraction is being encouraged by national government despite gaps in knowledge concerning the impacts on the environment and other activities such as fishing. Consultation with local communities is left to the discretion of energy companies, as is compensation. The relative absence of government involvement, or even guidelines concerning stakeholder engagement around these processes, is likely to cause conflicts in the future, which could be investigated through the lens of environmental justice (Fraser, 2009).

Intergenerational issues and social resilience

Another research topic which could be further explored are issues of inequality and marginalisation of young people, particularly men, from rural places in Norfolk. There appears to be a high level of place attachment to Norfolk. However, poor educational achievement and the lack of employment opportunities locally mean that many young people have limited options. While fishing and other rural jobs would have provided employment or self-employment for young people in the past, opportunities such as these are no longer financially viable and attractive. Intergenerational issues such as these have seldom been explored in terms of social resilience and deserve further research.

9.5 Concluding remarks

In this thesis I have explored the extent to which a place lens can be useful for deepening understandings of social resilience in coastal communities, particularly fishermen's livelihood responses to change and their interaction with governance processes. What has emerged is that using a place lens is helpful in a number of ways. However, I caution that an overemphasis on the role of relationships *to* and *within* place can overshadow the importance that structural factors and political dynamics have in shaping social resilience.

A place lens enables the diversity of relationships to place and their dynamics to be explored openly and to focus attention on people's experiences of and responses to change in a particular locality. It can be used to highlight the social differences and tensions over identity and place that exist within any 'social system'. Place meanings are highly diverse, complex and dynamic; even when attempts are made to actively maintain these, they are susceptible to change and replacement by others. Having said that, I found that in Cromer, certain individuals and groups had a collective sense of place identity. When this was perceived to be threatened, social resilience and agency were expressed through a resistance to change, where the emphasis was on keeping things the same, on conserving particular functions and identities. I found that a growing sense of inequality was being experienced in Cromer as it is in the other parts of the UK and that change was perceived to be outside of people's control. This lack of control may explain resistance rather than the more cooperative forms of collective action, which are emphasised in literature on common pool resources and community resilience.

Exploring relationships *within* place has allowed some of the trade-offs in livelihood adaptation and social resilience to be identified. The strategies fishermen have adopted in order to cope with change

have involved trade-offs in their family life and wellbeing. Furthermore, I showed that some adaptive strategies – such as fishermen working on their own - may not be sustainable in terms of the fishery. While this strategy has allowed the fishermen to continue working, it seems to be compromising the intergenerational continuity of the fishery. This raises questions about what resilience means when it is considered between different groups across time and space, where resilience can be an ‘illusion’ which masks other vulnerabilities. I found that although fishermen did not necessarily demonstrate a high attachment to the places they worked from, relationships *within* place – to family and other fishermen - were crucial in determining fishermen’s choice of livelihood strategy along with occupational identity and risk perceptions. However, although collective action is often emphasized in common pool resources and resilience literature, I found little evidence of this among fishermen. Instead, I found that fishermen could best be described as ‘cooperating individualists’.

The lack of capacity for fishermen to act collectively has serious implications for their potential participation in governance processes and their ability to strategically influence policy. However, this is not the only factor limiting participation in fisheries governance. Despite participation being broadly emphasised as a goal by fisheries institutions, the actual scope for including coastal and fishing communities in decision-making remains limited. The future of the Cromer crab fishery will depend on addressing fishermen’s concerns over environmental impacts on their resource and attracting new entrants. As I have shown, finding solutions to both issues, and particularly recruitment necessitates both the participation and support of local fishermen and the institutions that govern them. This will not be possible without a shift in the norms and vision of governing institutions; from one being focused on conserving the marine environment to one where inshore fishermen are recognised to be valuable and also in need of ‘conserving’. However, current policy discourses on inshore fisheries and coastal development in the East of England are being shaped by European and national agendas, with little attention to impacts at the local level. These are prioritising economic growth through the development of new marine industries, alongside the need to focus on marine conservation and continue to reduce fishing effort. The inevitable trade-offs these policies will have at different scales of governance - for different groups, communities or even regions - have not yet been openly deliberated.

This thesis concludes that while relationships to and within place can be important factors in explaining the social resilience of individuals, groups or communities, these should not be taken for granted. Social resilience is strongly constrained or enabled by structural factors and political dynamics and the role of place in determining social resilience should not be overplayed. Nevertheless, I have shown that taking a place lens is useful for deepening understandings of social

resilience and for opening up policy debates on resilience and sustainability. Questions of whose knowledge and perspectives are included in current marine and coastal policies needs more careful consideration given European and national objectives of 'balancing' economic, social and environmental concerns. These important questions need to be considered by local communities, by government institutions and policy makers through a more holistic approach to the governance of coastal areas.

10. Bibliography

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1. Conceptual framework

1.1 Origins and development of social-ecological resilience

Resilience initially came from mathematics or physics used to explain how a material returns to equilibrium after a disturbance. This is similar to how the Oxford dictionary defines it is “1) The ability of a substance or object to spring back into shape; 2) The capacity to recover quickly from difficulties; toughness”. However, because as Norris *et al.*, 2008 put it resilience is a powerful metaphor, it has been applied to a variety of research and policy areas over the last decade. At least two main disciplinary branches can be identified, the first from ecology and natural resource management– interested in understanding how systems deals with disturbance and the second from psychology and mental health – focused on how individuals or communities deal with trauma or shock (see Brown and Westaway 2011). The strand from ecology introduced by Holling (1973) was the most influential using a systems approach in applying resilience to thinking about the dynamics between humans and nature through to social-ecological systems (SES) in the 1990-2000s. The Resilience Alliance, an interdisciplinary group of academics, sought to understand how people respond to and shape periods of change, identified as a neglected area of research likely to become increasingly relevant as humans experience a changing environment from global influences (Gunderson & Holling 2002).

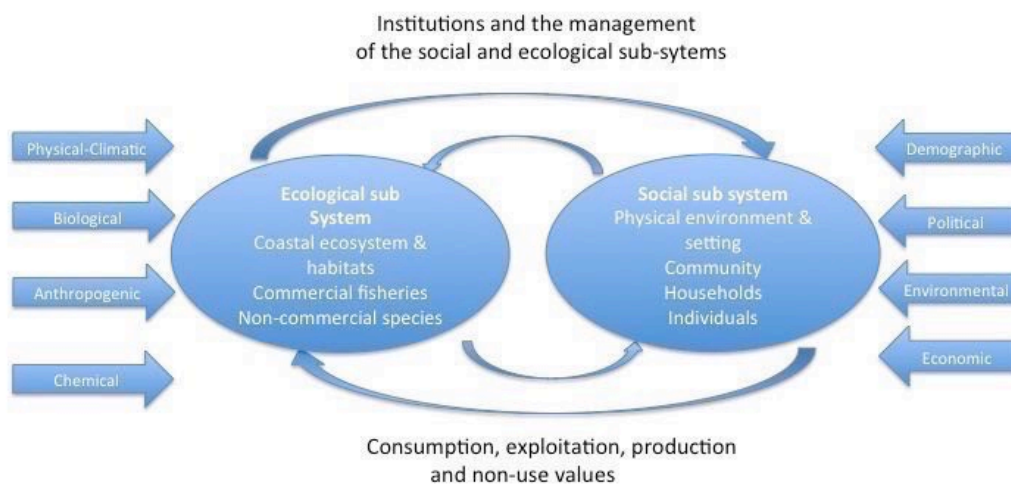


Figure 2.1, The socio-ecological fisheries system. The ecological sub-system contains the coastal ecosystem, which, includes habitats and species (targeted and not targeted commercially by fishers). The social sub-system includes the physical environment (e.g. rural, urban, coastal) where fishermen and their families live and are part of the wider community. The arrows show the interactions between the sub-systems as well as the external impacts each sub-system is exposed to which may cause fluctuations in the SES through its linked sub-systems.

Because much of the subsequent literature of social resilience stemmed from Holling’s work on ecological resilience, I will make a few brief points about it. Resilience was applied to model shifts in ecological systems from one state to another following a disturbance – for instance change to the species composition on a coral reef to one of algal domination following exposure to a hurricane (Shaeffer *et al.*, 2001). Importantly, the use of resilience by Holling recognised that multiple states of equilibrium existed with different thresholds controlling the move from one state to another (Folke, 2006). It helped to conceptualise the impact of a disturbance over time recognising non-linear fluctuations rather than returning to a previous state following recovery. Through the accumulation of repeated shocks, an ecosystem becomes more vulnerable to change and is more likely to result in shifts to ecological structure and function.

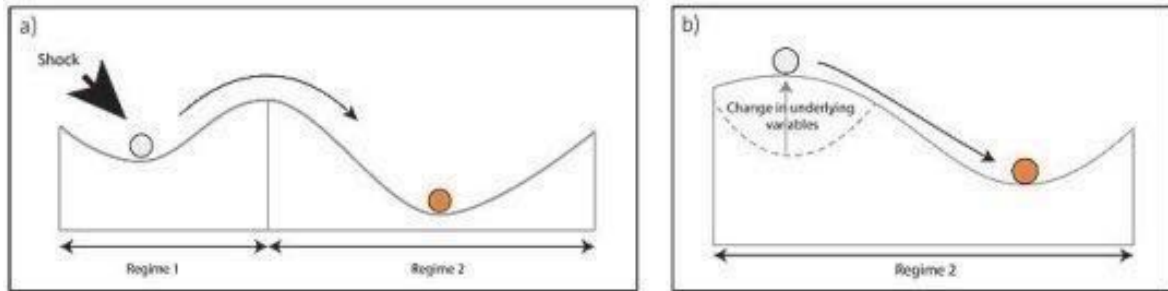


Figure 2.2 resilience is a measure of the amount of disturbance required to cause that state change

SES thinking links changes in the social system to the ecological system and viceversa where “*social–ecological resilience is about people and nature as interdependent systems.*” (Folke *et al.*, 2010, page 23). The definition of resilience adopted in the SES literature, as stated in Walker *et al.*, (2004, page 6), is to “absorb disturbance and reorganize while undergoing change”, and at the same time “retain essentially the same function, structure, identity and feedbacks”. An example used from Walker’s ecological research to illustrate this definition is given where the crucial role of nitrogen fixing plant species on a grassland affected by a drought was replaced by other plant species with the same properties, enabling the grassland to persist.

Resilience, for social-ecological systems, is related to the magnitude of shock that the system can absorb and remain in a particular state; the degree to which the system is capable of ‘self-organising’ (referring to how individuals can organise themselves without external influence); and the extent to which the system can build capacity for learning and adaptation (Carpenter *et al.*, 2001; Folke *et al.*, 2002). The theory considers that a SES undergoing change experiences an adaptive renewal cycle with periods of growth, exploitation, collapse and reorganisation. The controlling variables of change may be slow (e.g. conservation phase) or fast (e.g. exploitation) and be connected to variables at multiple scales (Holling, 2001; Carpenter *et al.*, 2001; Berkes *et al.*, 2003) (see Figure 2.3).

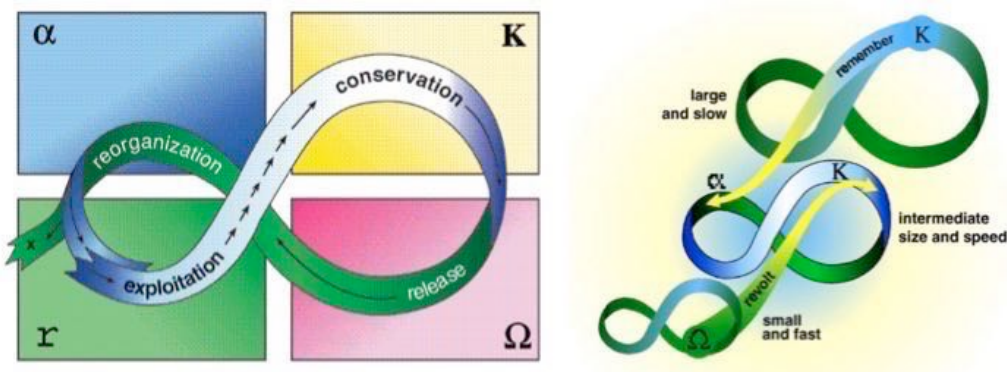
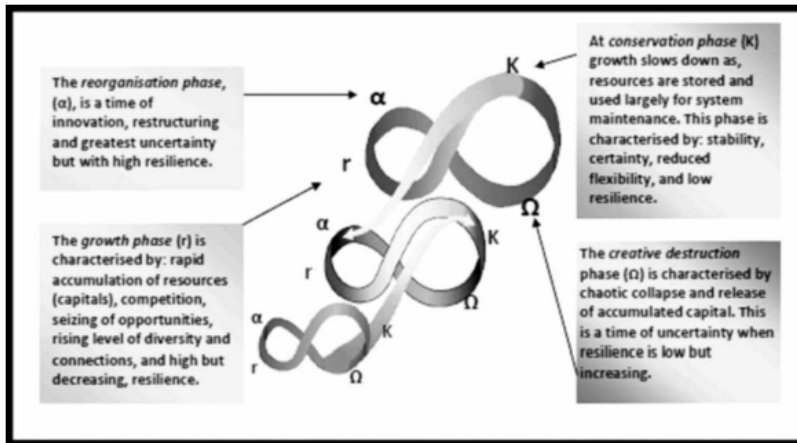


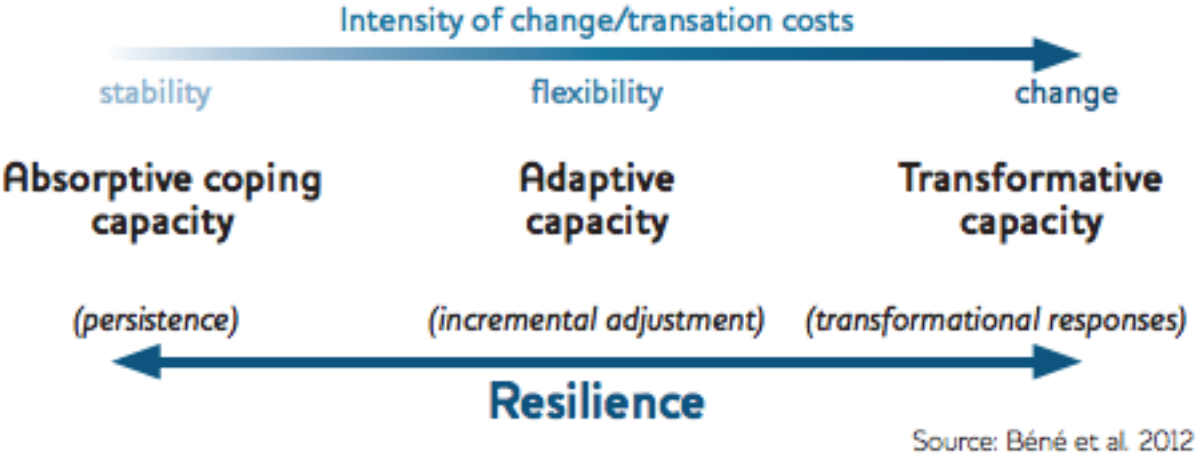
Figure 2.3 Feedback and loops in the SES adaptive cycle

The definition of SES implies that social resilience is linked to ecological resilience. However, Adger (2000) questioned whether the resilience of an ecosystem necessarily resulted in a more resilient society and vice versa. The factors involved in ecological resilience are not clearly related to those which enhance social resilience. Therefore it is important to consider ecological resilience separately to social resilience even if feedback will necessarily exist between an ecosystem and a society which depends on it. I will now focus on literature on the social resilience of SES, review some of the empirical work which has emerged in the last decade and discuss some of the key criticisms.

1.1.1 Resilience as coping, adapting and transforming: capacity for change & stability

Whereas adapting to change is used singularly in terms of a response in the climate change adaptation literature, three responses have been proposed in the resilience literature. The first is 'resistance' – absorbing the impact which can be understood as coping, 'adaptation' – an incremental change to deal with and accommodate the impact, and 'transformation' – where significant change has to occur in order to deal with the impact resulting in something new. Transformation involves taking up the opportunities that disturbance creates where, "the capacity to create untried beginnings from which to evolve a new way of living" occurs "when existing ecological, economic, or social structures become untenable" (Walker., at al., 2004, p 7). Therefore resilience is considered both as a property of a system – the ability to cope with change without significant upheaval to function- and as a process which may involve resistance, adaptation or transformation. However, whether or not the same characteristics are required for a system to resist and, or alternatively transform was not clear from this literature.

Marshall *et al.*, (2012) proposed that the characteristics that contribute to transformational capacity are similar to those influencing adaptive capacity but simply reflect longer term and larger scale changes, that affect fundamental characteristics of the SES. Bene (2012) suggested that instead of resistance, adaptation and transformation being separate they should be understood as overlapping and complementary. In his model, resilience results from the all three capacities: resistance or absorptive, adaptive and transformative which each lead to different outcomes: persistence, adaptation and transformation. As intensity (and perhaps frequency) of a shock increases, the type of likely response changes with the absorptive capacity more likely to be used initially (see Figure) as it involves lower transaction costs. Either way social resilience is looked at, it requires some capacity to cope, adapt or transform.



Tab. 1: Three capacities of social resilience

	Coping capacities	Adaptive capacities	Transformative capacities
Response to risk	ex-post	ex-ante	ex-ante
Temporal scope	short-term	long-term	long-term
Degree of change	low, status quo	medium, incremental change	high, radical change
Outcome	restoration of present level of well-being	security of future well-being	enhancement of present and future well-being

Source: Own draft based on VOSS (2008), LORENZ (2010), OBRIST *et al.* (2010a), BÉNÉ *et al.* (2012), KECK (2012)

Figure 2.4 Capacities of resilience: coping adaptation and transformation

Another key part of social resilience is suggested to be ‘social capital’ – understood to be part of adaptive capacity (Adger, 2003; Pelling & High, 2005). As Pretty & Ward (2001) and Adger (2003) explained ‘social capital’ can be understood in terms of different types of social relations: ‘bonding’ which typically occur within a group of closely related individuals with a common interest (e.g. a place based community, a family); and ‘bridging’ or ‘networking’ where relations are formed with individuals or organisations outside of the main group (e.g. between a local organisation and a national level NGO). Pelling & High (2005) asked how the internal working of communities and organisations may determine which path is taken in adapting to change. They argued the choice of adaptive strategy was

partly a function of formal structure and resource distribution including issues of access, but that this was also attributable to informal social relations and values. While some studies have focused on the nature and quality of these relationships; others have examined the structure of networks to determine how social capital can influence resilience and what formations may be optimal in enhancing adaptive capacity (e.g. Bodin *et al.*, 2006). In this first set of studies (e.g. Pelling & High, 2005) the role of trust, mutual support and reciprocity between individuals and groups are highlighted. Social capital provides a way to understand informal social relationships, particularly those that shape collective and individual action.

However, there is a need to be critical of social capital. More social capital does not necessarily equate to more resilience. The existence of a 'network' was not sufficient to enable resilience. A larger network for example may not result in higher sources of innovation than a smaller one (Moore & Westley, 2011). Pelling & High (2005) suggest two sites for the application of social capital in research on adaptation: "communities of place and communities of practice". More recently the role of place in social capital has been highlighted in work on community resilience in disaster research (Hanna *et al.*, 2009; Cox & Perry, 2011). The link between social capital, adaptive capacity and place has long been recognised – for example in Adger's paper on Social Capital, Collective Action and Adaptation to Climate Change (2003, p400) states that "*the nature of adaptive capacity is such that it has culture and place specific characteristics that can be identified only through culture and place specific research*".

1.2 Operationalisation social resilience: key criticisms

A problem of definition or rather the issue of multiple and continually evolving definitions for resilience lies at the heart of many of the criticisms of resilience by social scientists. The key tension is the contradiction between resilience as adapting while staying the same – maintaining function and identity and resilience as transformation (in Walker *et al.*, 2004). For example, the social-ecological systems literature considers resilience as "*the capacity of the system to continually change and adapt and yet remain within critical thresholds*" (in Berkes & Ross, 2013, p6) closely following the earlier definition by Walker *et al.* 2004. Other definitions of resilience focus on the return to equilibrium, 'to bounce back' after a disturbance - termed engineering resilience by Holling in 1996 in contrast to Holling's (1973) resilience which assumes constant change that says nothing about returning to the original state. Folke *et al.*, emphasised in 2010 that even though adaptation and transformation may seem 'counterintuitive as [they] embrace change as a requisite to persist', both are essential to maintain resilience. They suggest that "*the very dynamics between periods of abrupt and gradual change and the capacity to adapt and transform for persistence are at the core of resilience of SES*" (p20).

However, the operationalisation of resilience to social systems has been limited so far partly due to its roots from systems theory (Parson, 1951) and the uncritical transposition of concepts grounded in an understanding of ecological processes to understanding social phenomena. Such an approach is inadequate because social systems are not 'self-regulating' or 'self-organising' and human behaviour and action cannot adequately explained as rational and optimal (Cannon & Muller-Mahn, 2010). The disciplinary baggage carried by SES resilience has led to a normative language being employed when discussing social change which coupled with the conflicting dynamics of withstanding and developing with change has led to much confusion. For instance Folke *et al.*, 2010 asked: "*Are there deeper, slower variables in social systems, such as identity, core values, and worldviews that constrain adaptability?*"

In addition, what are the features of agency, actor groups, social learning, networks, organizations, institutions, governance structures, incentives, political and power relations or ethics that enhance or undermine social–ecological resilience? These questions not only serve indicate the number of gaps still existing in the SES resilience framework, but also raise the question of how applicable the framework is to ‘social systems’. Having said that, progress is being made through interdisciplinary work and the engagement of social scientists with this literature, particularly over the last 5 years.

1.2.1 A normative concept: Is transformation, adaptation, or coping more desirable?

As social resilience has started to be applied and its definition of has continued to develop, it has become more normative. For instance, in response to definitions which privilege stability in approaching resilience, is the argument that maintaining or recovering to a particular state assumes that maintaining the original function is best. In other words, it promotes the status quo and in maintaining this identity does not account for learning from past experience. Adger’s conception of social resilience in 2000, seemed to privilege absorption (coping) or at most adaptation rather than transformation which by definition requires some level of upheaval. However, concepts of social resilience that promote the idea adapting and transforming in response to change being preferable to resisting and essentially standing still also suffer from this criticism. Transformation and to a lesser degree adaptation may require a new set of values by the community. However, transformation and adaptation cannot be assumed to be value and power neutral; nor can transformation be assumed to be positive even where conditions are considered (by some) to be ‘untenable’. In both cases, conceptualisations of resilience considers that the functions being maintained or changed are value neutral and uniform. Furthermore, this view assumes that when conditions are untenable transformation is likely to occur. However, it may be precisely because the conditions are untenable that transformative change is hindered (Bene, 2012). Researchers and practitioners have warned against the dangers of resilience, the ‘dark side’ of resilience, particular when viewed as an outcome. For instance, a case study in coastal Norway, concluded that what appeared as ‘community resilience’ may be an illusion and could lead to complacency over the need for adaptation (Amundsen, 2012).

While adapting to change – responding in some way - is generally seen as positive whether it involves coping, adapting or transforming, livelihood adaptations may have positive and negative outcomes on wellbeing (Davies and Hossain, 1997). Increasing resilience will not lead to improvements in well-being and in some cases may lead to the contrary (Coulthard, 2012). However, assessing resilience outcomes simply in terms of impacts on wellbeing can be tricky. Often those that have developed coping strategies to deal with change over the medium to long-term, also adjust their aspirations and wellbeing goals upwards or downwards (Clark, 2010; Coulthard, 2012). The reality is that there will often be winners and losers following any change and the subsequent response to it. For instance, Marschke & Berke (2006) found that resilience building by village institutions aimed at enhancing community based conservation were disproportionately taken up by wealthier households (see also Pettersen, 1996). This study also cautioned that while local level interventions (such as improving marketing strategies) may enhance household level resilience, they may cause degradation of resources at a regional level. Similarly individual resilience does not equate to social resilience. Resilience is likely to operate at different levels simultaneously. This means that in any study of social resilience, it is important to determine the scale of analysis and which social groups are being considered as resilient.

There is therefore a need to think about resilience critically, evaluate trade-offs and consider who are the winners and losers of resilience. More attention needs to be paid to the trade-offs involved in choosing adaptive strategies and its impacts on people’s well-being locally but also further afield and

across scales. . Additionally, the consequences for different people adapting to change, in terms of who benefits or loses, or how adaptive preferences may change ('response shifts') need to be considered.

1.2.2 Understandings of human behaviour

Another critique of the resilience literature to date is that it only offers a simplified exploration of human environmental behaviour. It has tended to be mechanistic and focus on factors which can be modelled and explain or predict behaviours. However, people often act in what could be considered 'rational'. For instance, in studies (e.g. Daw *et al.*, 2012) that have looked for factors influencing adaptation of fishermen's livelihood decisions, a number of factors were unexplained. For example, more specialized fishermen – who were considered as result less resilient – did not try to improve their resilience by diversifying into other forms of employment in difficult times. A resistance to leave a fishery in times of crisis could not be only explained by economic factors implying that livelihood decisions are strongly influenced by subjective and cultural dimensions. In Cambodia, livelihood responses at household level were found to be shaped by values linked to community attachment and well-being: value of conserving resources for future generations and spiritual significance of local natural resources (Marschke and Berke, 2006). Pursuing wellbeing goals – such as remaining in the same place or job – may aid or hinder adaptation and therefore on social resilience (Marshall *et al.* 2012; Coulthard 2012).

The SES literature has tended to place emphasis on the role of institutions - particularly from formal civil society - in developing responses, such that social scientists have expressed concern that this overshadows the importance of social relations between individuals (Fabinyi *et al.*, 2014). The SES literature on governance also overlooks the diversity of other factors (e.g. socio-political, and cultural) on which institutions may be based; and that social inequalities may exist – regardless of whether institutional processes are led by the community or by the state – which will have implications for the community's resilience. In addition to formal civil society organisations, people are also clearly able to engage in change in collective action in more organic ways (Pelling and High, 2003).

The emphasis on dependence that SES tends to put forward of social systems - usually institutions - on natural systems, assumes that people in these systems are subjected to external influences and that they themselves lack agency, defined as the capacity for and degree of choice that individuals can exercise (Lister 2004). However, agency is necessary for adaptability. Brown & Westaway (2011) highlight the particular importance of agency in adaptation decisions. Unlike an ecosystem, humans can plan and can to an extent foresee uncertainty and future threats. Work from community disaster research has highlighted that "*people can imagine how things might be and do things to bring those conditions about.*" (Brown & Kulig, 1996/1997 referred to in Norris *et al.*, 2008).

1.3 Politics of resilience - which voices are heard?

The normative disposition of resilience has led critics to ask: "Resilience of what to what and for whom? (Robards & Greenberg, 2007). Sustainability which in a sense 'resilience' is replacing as a concept (Folke *et al.*, 2002), suffered from the same questions: "What should be sustained? (Gale and Cordray, 1994). The answer in both cases – for resilience as with sustainability – requires a political examination into who decides on and defines the valued characteristics that should be retained, the frames of references or the threshold levels for transformation. This highlights the currently missing power dimensions of resilience (Robards & Greenberg 2007). Maintaining a certain level of wellbeing or a sustainable fishing community could be taken as objectives but essentially the SES tends to assume

that views and levels of acceptance across members of the social system are homogenous. This leads to another related criticism of the resilience literature: a lack of consideration of the winners and losers. One person's resilience may be someone else's vulnerability, or resilience at one scale may compromise that at another (Leach, 2008). As Cote & Nightingale, 2012 ask: "*What is the role of power and culture in adaptive capacity?*" The systems view of the SES approach tends to mask the internal factors in communities, which influence adaptability through which reorganisation, learning and innovation stages of transformation occur. While there is some recognition that particular individuals can play essential roles including leadership, strategic vision and supporting social relations (bringing together knowledge, shaping social memory) (Folke, 2006), the SES does not explicitly consider the power struggles, which are likely to occur during these processes in societies with varying interests. Therefore, there is a political dimension to resilience which necessitates the involvement of local people in deliberating over their goals and values, what trade-offs are considered desirable and which are not? Resilience can be viewed as creating a discourse, as sustainable development did which can be used as a political tool Leach, 2008.

Resilience applied to SES can be seen as a heuristic tool through which spatial and temporal aspects can be considered. It offers a way of connecting research in this thesis across scales (see Figure 1), between the social-ecological system-scale of the fishery and the community-household-individual scale. This kind of approach is particularly useful for studying how fishing communities respond to change. The relationship between ecological interactions in the marine environment and social and economic interactions are dynamic, complex and perhaps most importantly unpredictable. In this respect, what the SES resilience literature offers is a recognition that the world is not static. This, as Bene (2014) contends is "*in itself a progression with respect to previous conceptions of the world which might have relied too heavily on an assumption of equilibrium and immobility.*" In fisheries, a resilience approach offers an alternative framing which recognises flexibility, complexity, uncertainty and adaptive management instead of the move by policy makers in Europe and the UK to impose an equilibrium approach to managing fisheries with targets set of achieving 'Maximum Sustainable Yield by 2020'; Berkes (2003) advocated the use of a resilience approach for small-scale fisheries which he hoped would also expand the "scope of management information to include fishers' knowledge; [the] formulation of management objectives that incorporate livelihood issues; and [the] development of participatory management with community-based institutions and cross-scale governance."

While social resilience is conceptually useful in a broad sense: in terms of theorising how different individuals and communities respond to change, dynamic relationship between humans and the environment, its application has been hindered by a weak social science basis as has been highlighted by a growing number of critics. (Davidson, 2010). Most notably subjective factors including agency and power have not been adequately theorised. The value of the concept therefore remains debated in the literature with little empirical application. Recently other conceptual approaches have been suggested to deal with the gaps highlighted with regards, power, agency, internal values and perceptions. These have come from two directions: firstly, by applying a social wellbeing framework (Coulthard, 2012a; Armitage *et al.*, 2012) and secondly through using research on place and its role in shaping communities of place and interest (Marshall *et al.*, 2007; Cox & Perry, 2011). Both wellbeing and place link to a deeper understanding of community and place based values (Broch, 2013).

1.4 Main debates within the place literature: Place, person and process

As mentioned above the place literature has been criticised for its multiple definitions and concepts. The first point to make is that place attachment and sense of place - which most commonly appear as overarching concepts for understanding place- are frequently also included as sub-concepts of each other. The second source of confusion is that the definitions of each of these overlap. As can be seen in Figure 2.41, sense of place and place attachment and sense of place are often used interchangeably with different theorisations of what contributes to these and what the outcomes are.

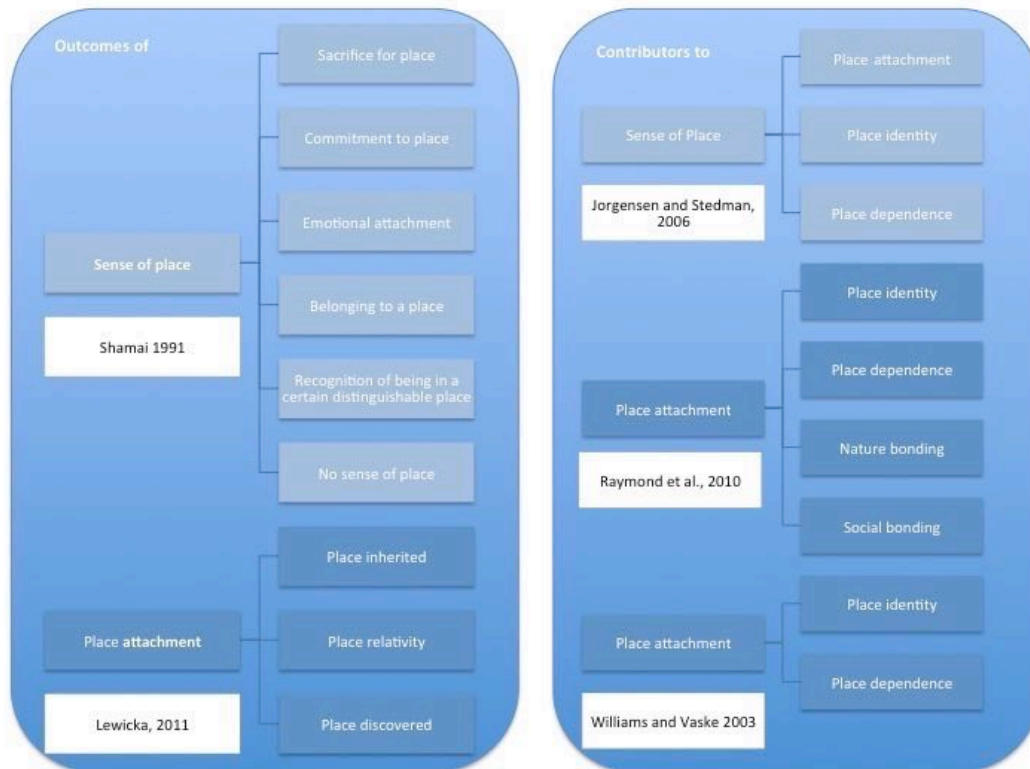


Figure 2.41

Some authors have suggested that place attachment as a precondition of place identity while other have discussed that a person can identify and value a place without necessarily being 'attached' to it, or that place identity and dependence can work against each other. Proshansky *et al.*, 1983 used the term 'place belongingness' which relates the idea of attachment more closely to place identity. The reality is that the relationship between place constructs is as Stedman (2002) suggested somewhat more complex. Rather than enter into the debates over the extent to which concepts subsume each other, I will provide the definitions I will frame my discussions around but first I discuss the key points from the place literature in general

A unifying framework was provided by Scannell & Gifford (2010) to understand the multi-dimensionality of place. It is grouped different parts of the literature on place attachment as Person, Place and Process. Their framework was used to organise a recent literature review in the Journal of Environmental Psychology on place research (Lewicka 2011). The figure originally had 'place attachment' at its centre but I propose that this framework also serves to organise ideas about other

place concepts as well. I represent this in Figure 2.4.2 as a way to organise this section to discuss place as contributing to relationships *to* and *in* place.

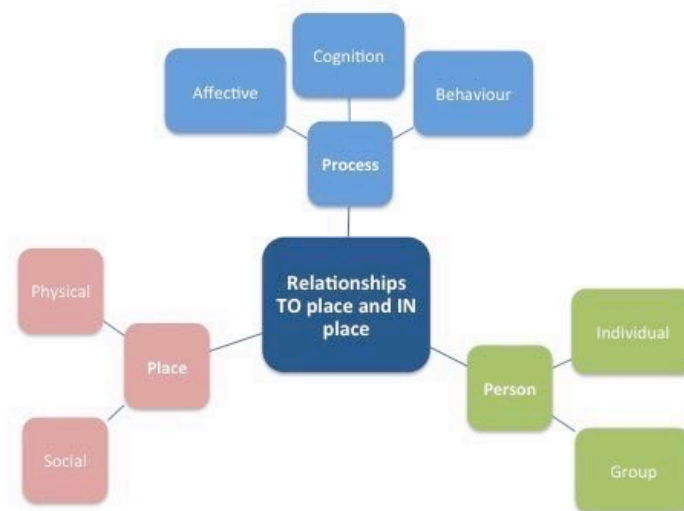


Figure 2.4.2 An organising framework for understanding relationships in place and to place. Adapted from Scanell & Gifford, 2010

Individual and Social

Relationship to place and how someone identifies with place are constructed at an individual level. Each person may relate to a place in a different way depending on their experiences. Relationships to place therefore are personal in nature, involving memories and knowledge about places which acquire meaning - for instance, someone's bedroom or office. However, collectively the ways in which people relate to the same place and how an aspect of place is reproduced in the community results in a commonly held place identity. Places also have symbolic meanings which are held collectively (Low, 1992). For instance, a church will have religious meaning which will be shared by a group or a town square will be a symbolic meeting point for a large number of individuals. For example, public places are experienced by individuals and also communally. It is important to note that studying place meanings that these develop and vary across different temporal and spatial scales (eg. from the home to a neighbourhood or country; from childhood experiences to other life stages; from the self to family, a community or nation population).

Most of the focus in literature has been on the individual differences between people and their relationship to place, the 'Person'. Much of this work has centred on a) the extent and form of attachment to place, place identity or dependence on place and b) predictors of attachment rather

than the processes or meanings of attachments which may result in place identity or related constructs. Most of this work has used positivist research paradigm with quantitative methods and in many cases developed scales and indicator for relationship to place. Qualitative approaches have also been used to categorise personal relationships with place (e.g. Eyles, 1985; Relph, 1976;¹ Hummon, 1992, Twigger-Ross, 1996). However, this has tended to miss the shared ways in which groups relate to places as well as the ways in which individual relationship to place are a product of social interactions.

Physical and Social

Places provide the physical and social settings for human interactions to occur. Social and nature bonding both influence relationship to place (Raymond et al., 2010). However, while some see relationship to place as primarily a social construction which become meaningful based on the social interactions and experiences that people have (e.g. Eyles, 1985), others such as Stedman (2003) have emphasised the physical aspects of the environment. The physical environment can have a strong influence on behaviour especially as shown in work on the recreational and aesthetic values of place (Devine Wright, 2010; Stedman, 2011). But also people relate to places mostly on social grounds to places that are not beautiful but which facilitate particular activities for example. When someone misses home it often much more than the physical place they miss but the relational aspects of place.

Cognitive, Emotive, Behavioural

Jorgensen and Stedman (2001) suggested that sense of place was an attitudinal construct and that it reflected affective, behavioural, and cognitive components. The mechanisms by which people relate to place and how these translate into behaviour and action is another aspect of place research that has been under researched (Lewicka, 2011). For instance, while many studies have show that increased residence time or property ownership are predictors of place attachment, explanations of what places mean to different people in terms of affect and cognition are largely absent. Similarly how relationship to place translates into behaviour and action remains a gap in the literature at least in theoretical terms.

Early place identity work (by Tuan, Relph and Proshanky) focused on how place shapes identity and the cognitions and experiences involved in this. They were criticised for not addressing how place influences people's responses to change. In fact, Proshanky *et al.*, 1983 specifically avoid attempts to explain actual behaviors or actions from experiences of place which they consider will depend on a host of other factors. However, they do not discuss how or under what circumstances this translates into action.

Place attachment scales

Recent work has suggested the range and different forms of place attachment that exist. For instance, Shamai's (1991) seven-point scale leans towards the positive nature of attachments to places, starting with a complete lack of sense of place, and progressing through varying degrees of commitment to a place. Hummon (1992) developed another scale based on the 'community attachment' of residents' to their neighbourhood through social bonds they had with people. Lewicka, 2011 proposes several

¹ Relph had developed seven different degrees of 'outsideness' and 'insideness' in relating to a place. 'Alienation', 'homelessness', and 'not belonging' are one extreme (RELPH, 1976, p. 51) and "belonging to a place and . . . deep and complete identity with a place" (RELPH, 1976, p. 55) at the other.

more categories of place attachment or rather non-attachment to place: alienation, relativity and placelessness in addition to 'active' vs. 'traditional' rootedness identified by Hummon, 1992 which describes how people actively maintain an attachment to place or alternatively may be attached to place in a more fundamental way without necessarily being aware of it. Importantly Lewicka's categorisation identifies that place attachment is not always a positive feature with some individuals not feeling attached to a place. The two scales are presented, mapped out to each other in Figure 2.43.

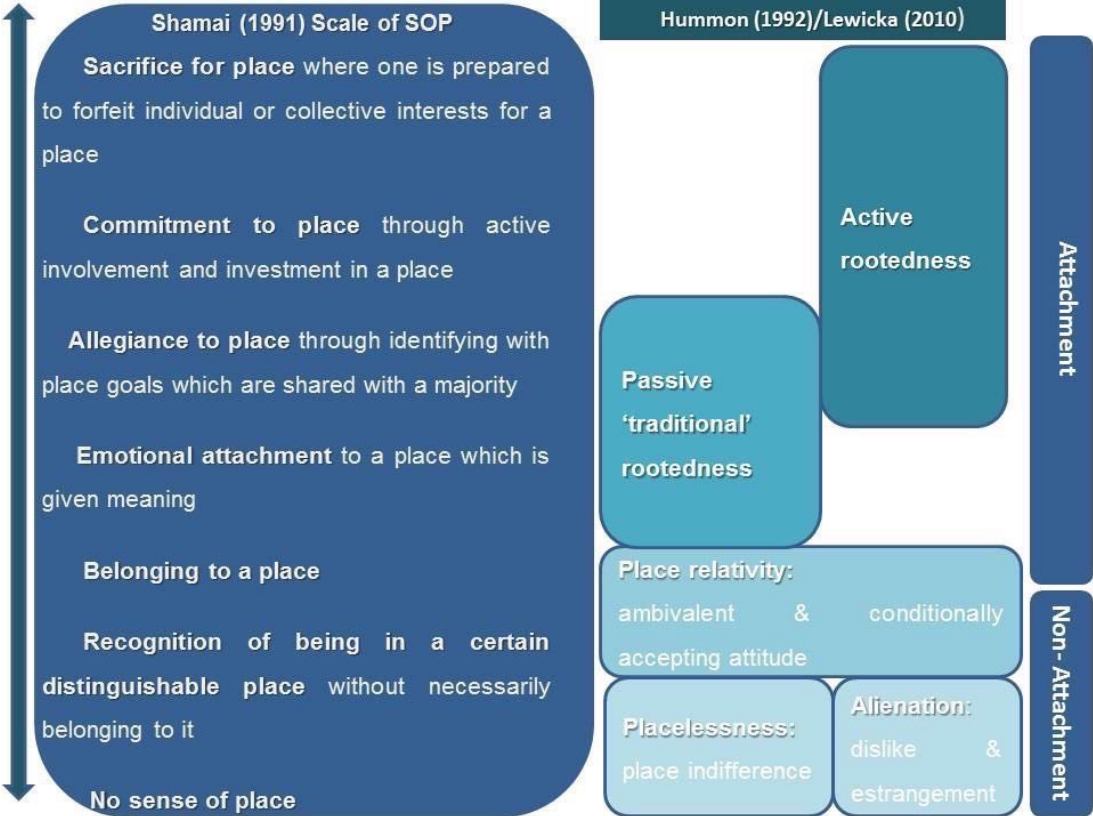


Figure 2.43 Scales of Sense of place following Shamai (1991), and Hummon (1992)/Lewicka (2010)

2. Methodology

2.1 Tables relating to interviews

Table 2.1.1 Fishermen interviewed in Norfolk (all fishing places listed) Names have been changed.

Name	Age	Fishes from	Still fishing	Lives in same place?	Father was a fisherman?	Previous work	Fished from somewhere else?
Jack	17-23	Overstrand	Yes (deckhand)	No	No	Agriculture	Also Wells
Alistair		Wells	Yes (deckhand)	No	No (grandfather)	No	Cromer
Matt		Cley	Yes (deckhand)	Yes	No (grandfather)	No	No
Ben		Wells	Yes (deckhand)	No	No	Military	Also Cromer
Chris	26-30	Wells	Yes (deckhand)	No	Yes (Some of the time, 1 st generation)	Renewables, Food sector, Fishing	Also Cromer
Adrian		Brancaster	Yes (skipper)	Yes	Yes (several generations)	Sports sector	No
Rick		Cromer	Yes (skipper)	No	No	Fisherman's shop	Also Wells
Stan	40-49	Cromer	Yes (deckhand)	No	No	Mechanic in motorcycle shop	Kings Lynn, Lowestoft, Shoreham, Great Yarmouth
Leo	40-49	Cley	Yes (skipper)	No	Yes	Plasterer, Marines	No
Peter	40-49	Kings Lynn	Yes (skipper)	Yes	Yes	Yes. Office job	No
Bill	40-49	Sheringham	Yes (skipper)	Yes	Yes (2 nd or more generation)	Postman, mechanic	Yes
Tony	40-49	Cromer	Yes (skipper)	Yes	Yes (2 nd or more generation)	No	Abroad, Lowestoft
David	40-49	Cromer	Yes (skipper)	Yes	Yes (2 nd or more generation)	No	No
Harry	40-49	Cromer	No (now fisheries officer)	Yes	No	Fisherman, Builder/ Carpenter	No

Name	Age	Fishes from	Still fishing	Lives in same place?	Father was a fisherman?	Previous work	Fished from somewhere else?
Jon	40-49	Cromer	No (deckhand, now runs processing factory)	Yes	Yes (2 nd or more generation)	Fisherman Seafood business,	Lowestoft
Tom	40-49	Cromer	Yes (skipper)		Yes (1 st generation)	No	Also Wells
Jim	40-49	Cromer	Yes (skipper)	Yes	Yes (2 nd or more generation)	No. Some winter coastal maintenance	Also Wells
Brian	40-49	Morston	Yes (deckhand)	Yes	Yes (2 nd or more generation)	Yes. Technical College	Also East Runton, Wells
Tim	40-49	Overstrand	Yes (skipper)	Yes	Yes (2 nd or more generation)	No	No
Nick	40-50	Cromer	Yes (skipper)	No	Yes (Some of the time, 1 st generation)	No. Some gamekeeping in winter	East Runton
Carl	51-69	Cromer	Yes (skipper)	No	No	No	Lowestoft, Great Yarmouth, Wells, Scotland
Bob	51-69	Cromer	Yes (skipper)	Yes	Yes (1 st generation)	No	No
Alan	51-69	Cromer	Yes (skipper)	Yes	Yes (2 nd or more generation)	No	No
Will	51-69	Sheringham	Sometimes (skipper, retired)	Yes	No	No	No
Nathan	51-69	Cromer	No	Yes	Yes	Architect	No
Joe	70-79	Cromer	Retired	Yes	Yes (2 nd or more generation)	No	Mundesely
Donald	70-79	Sheringham	No	No	Yes (2 nd or more generation)	Entertainer	Lowestoft
Robert	70-79	Cromer	Yes (skipper, part-time)	No	No	No	East Runton

Table 2.1.1 Fishermen's wives and women working with fishermen and running fishing businesses interviewed Norfolk

Name	Age	Works from	Lives in same place?	Father was a fisherman?	Previous work
Anne	45-55	Cromer	No	No	Yes –civil servant
Rosemary	45-55	Weybourne	Yes	Yes	No
Helen	55-65	Cromer	Yes	No	Yes
Janet	45-55	n/a	n/a	No	n/a
Maggie	55-65	Brancaster	Yes	Yes	No

Table 2.1.2 Fishermen interviewed in Suffolk (all fishing places listed) Names have been changed.

Name	Age	Fishes from	Still fishing	Lives in same place?	Father was a fisherman?	Previous work	Fished from somewhere else?
Tom	60-70	Orford	Sometimes (skipper, retired, still runs business)	Yes	No	No	No
Kevin	50-59	Aldeburgh	Yes (skipper)	Yes	No	Builder	No
James	17-23	Aldeburgh	No (was weekend deckhand)	Yes	No	Fisherman's shop, carpentry	No
Charles	31-39	Lowestoft	No (was a deckhand, now has fish shop)	No	Yes	Fisherman	No
Oscar	17-23	Southwold	Yes (skipper)	Yes	Yes	No	No

Table 2.1.3 Coding structure developed in NVivo for analysis

Name	Sources	References
1a. How did you become a fisherman or skipper	32	310
Costs financial aspects of becoming a fisherman and moving up	19	110
<i>cost of courses</i>	11	22
<i>costs of getting set up with boat and other equipment</i>	16	69
<i>getting a loan</i>	4	6
Early experience fishing	28	86
Experience fishing so far (time)	20	35
First fishing job	17	30
Moving up in fishing	19	45
<i>buying own gear</i>	11	17
<i>Crew pay and share system</i>	9	13
<i>Learning to fish</i>	18	44
1b. Why do you or don't you fish	30	217
Fishing just because...	26	72
<i>Family background or not</i>	25	57
<i>Just a job or way of life</i>	5	5
<i>Stuck being a fisherman - no alternatives</i>	7	9
Reasons to fish	22	94
<i>Being 'outdoors' peaceful</i>	9	10
<i>Competitive spirit</i>	3	5
<i>Excitement, 'gamble'</i>	7	10
<i>Flexibility and freedom</i>	8	8
<i>Love the sea</i>	10	15
<i>Physical work</i>	5	7
<i>Self determination</i>	9	17
<i>To make money</i>	8	12
Reasons to NOT fish	13	41
<i>Leaving fishing (not due to age or retirement)</i>	9	17
<i>Retirement (getting older)</i>	7	13
1c. Where do fish from - relationship to place	30	462
Fishing from Wells	20	71
Geographical area and certification	13	34
In the Cromer area	27	254
<i>Blackeney</i>	5	13
<i>Cley</i>	5	16
<i>Cromer</i>	22	67
<i>East Runton</i>	8	17
<i>Mundesley</i>	6	8
<i>Overstrand</i>	8	38
<i>Sea Paling</i>	4	4
<i>Sheringham</i>	10	56
<i>Trimingham</i>	3	3
<i>west runton</i>	2	11
<i>Weybourne</i>	4	13
Other fishing places (not around Cromer or Wells)	13	54
<i>Brancaster as a fishing place</i>	3	3
<i>Grimsby as a fishing place</i>	6	11

Name	Sources	References
<i>Lowestoft as a fishing place</i>	9	15
<i>Suffolk Southwold as a fishing place</i>	4	19
<i>West scotland as a fishing place</i>	4	4
Other important places for fishermen e.g. shed	4	7
Reasons why I choose to fish here or not	14	34
1d. Who are you - Identity - Different to others	10	39
Fishermen perceive windfarmers	2	7
Part-timers - fishermen who have another job	10	33
Town rivalry	5	36
2a. What is the work like	27	160
What is it like being at sea	2	5
What would be a typical day at sea	26	149
Ideal or routine day	24	115
<i>Length of trip</i>	5	11
<i>Number of pots hauled</i>	11	18
<i>Other jobs (non-fishing)</i>	1	1
<i>Other jobs related to fishing</i>	5	6
<i>Sleep and rest time</i>	3	10
<i>Stress</i>	6	15
<i>Tide dependent</i>	9	15
Non typical (or not ideal) day	13	33
<i>days where you cant work (e.g. bad weather)</i>	12	24
<i>When things go wrong and lending a hand (emergency)</i>	3	8
2b. What do you do over the year - Seasonality	11	16
'In season'	17	39
<i>Adapting fishing strategies to resource</i>	11	22
<i>Making money over summer holidays</i>	8	12
'Out of season' Winter	16	41
<i>Sorting gear for spring, fixing the boat</i>	8	13
<i>Whelking or other fishing in winter</i>	12	18
2c. What do you do with your catch	24	150
No processing sell live or boiled to one or more customers	16	39
<i>The Cromer crab factory</i>	8	15
Prices of crab lobster, Adding value Getting best value	16	26
Processing crab	17	70
<i>Employing others - who I work with</i>	10	44
3a. Attitudes towards management	21	161
Enforcement measures - monitoring and control	7	15
Historical fisheries management measures	4	5
Limit Catch	7	9
Limit Effort (days at sea, number of pots...)	14	31
Limit Spatial incl conservation or wind farms, different users (other boats, recreation)	16	59
<i>Conflicts with other users (non-fishers)</i>	4	4
<i>Conservation areas eg. MCZs</i>	11	20
<i>Inshore protection for small boats</i>	14	29
Scientific evidence base Data gathering, stock assessment	6	11

Name	Sources	References
3b. What are the main changes that have occurred over the years here, main challenges faced	31	416
Bureaucracy, rules and regs	18	41
Changes in gear, modernisation of boats (haulers etc..)	4	7
Coping strategies (getting by, adapting...)	9	31
Costs going up (e.g. fuel, bait...)	10	15
Downsizing crew and boat - reasons why	23	93
Environmental change observations and concerns (natural and due to own fishing)	19	57
<i>Good and bad years - variation in stocks</i>	14	38
<i>Overfishing and habitat damage</i>	5	8
External impacts on inshore fishing (gas pipe lines, windfarms, offshore vessels)	14	27
<i>Effects from larger boats (vivier boats) - conflict Wells and Cromer boats</i>	16	28
Fishing in the past - what we used to do (incl. other types of fishing)	15	70
Money isn't there anymore (work harder for money)	7	14
Safety, risk taking (as a result of working on own vs crew)	13	50
upgrading getting a larger boat	4	5
4a. Why do or don't young people fish	28	229
Apprenticeship schemes	9	37
Encouragement or discouragement by other fishermen (incl. own children)	6	10
<i>(Un)desirable for fishermen's children</i>	20	54
<i>Fishermen who discourage or encourage others</i>	6	14
<i>Need for 'awareness raising' about fishing</i>	4	9
New entrants over last few years	9	22
Reasons why young people don't fish	25	124
<i>Expense and no funding available to help</i>	15	29
<i>It's a hard living, not compatible with family life</i>	9	14
<i>Laziness, don't like to work hard</i>	10	16
<i>Limited opportunity due to single handed boats</i>	9	21
<i>Other opportunities (other than fishing)</i>	6	12
<i>Unsocial hours of fishing - prefer to have fun</i>	5	9
<i>Weak stomach</i>	9	12
<i>Young people (today) generational thing</i>	6	6
Women working on boats	6	8
4b. Other opportunities or occupations (not commercial fishing)	24	114
Before fishing (other occupations)	12	21
Instead of fishing (other occupations)	20	61
School, qualifications and education	11	19
Sea angling or pleasure fishing	5	6
4c. What do others think about fishing	12	29
General public perceptions	4	6
Holidaymakers perceptions	5	10
Local people perceptions	4	6
5a. Getting involved politically	13	44

Name	Sources	References
5b. What is important of value or worth to you	23	236
Cultural value of fishing - recognition of	6	11
Facilities for fishermen	3	6
Family values	14	45
Freedom - to do my job - self sufficient	9	17
Good relationships	5	6
Health & looking after yourself	13	40
<i>Keeping fit in getting older</i>	6	10
Honesty, Fairness and Trust	4	11
Income - Earning 'a living' from fishing	17	56
Leisure time	8	18
Linked wellbeing	5	7
Non-materialist	4	6
Weather as a limit	6	9
5c. How do you see future in fishing here (10 or 20 years)	19	42
Future at Cromer	10	17
Future at Sheringham	2	4
Future at Wells	4	8
6a Relationships with influence on fishing activity	30	441
Fishing community (incl family fishing members)	27	233
<i>Family members working together</i>	18	67
<i>Fishermen working with each other (e.g. gear, lending a hand)</i>	22	67
<i>Fishermens society</i>	10	35
<i>Skipper-crew relationship</i>	8	41
Government, local to EU (incl. scientists e.g. CEFAS)	14	54
<i>DEFRA and the MMO</i>	4	9
<i>District Council</i>	0	0
<i>EU</i>	0	0
<i>FLAG</i>	10	23
<i>scientists CEFAS</i>	5	5
Just me	6	11
Market side relations	9	29
<i>Buyers and processors</i>	15	40
<i>Customers</i>	8	22
Non-fishing community (those not working in fishing sector)	20	110
<i>Crab and lobster festival</i>	4	11
<i>Family (not involved in fishing)</i>	9	25
<i>Friends (not involved in fishing)</i>	3	7
<i>Local community and community organisations (excl. c&l festival)</i>	11	38
<i>Second home owners</i>	10	21

2.2 Interview guide and consent form

Information sheet *(for you to keep)*

Understanding social impacts and change in inshore fisheries of East Anglia

Purpose: The main aims of my research are to help understand:

- how coastal fishing households in East Anglia are facing current changes and pressures,
- the role and social value of fishing in coastal communities
- the impacts of fisheries policies and management on coastal fishing communities.

What is this for? I hope that my work will help identify ways to assess the social impacts of policies on people involved in fishing (which is currently lacking), and to help highlight the value inshore fisheries has for those who work in it and for the wider community. I hope I can also highlight some of the challenges East Anglian fisheries face today.

About me (Carole White): I am a postgraduate research student from the University of East Anglia (UEA) in Norwich. I am funded by UEA through CEFAS (Centre for the Environment, Fisheries and Aquaculture Sciences). The research is designed independently from CEFAS as will any results from this work. Taking part in this research will contribute directly to my own university work. Contact details are at end of this page.

What is required from you: Taking part is **voluntary** and you can withdraw from the research at any time. Taking part means being interviewed (recorded on a Dictaphone and later written up) and filling out a question sheet. You will need to commit about 1 hour of your time as a minimum. It is likely that the researcher will ask you for another interview at a later stage. You agree to being identified through your occupation, the type of organisation/business you work for, and/or where you work (location).

Carole agrees to:

- **answer any questions** you have regarding the research,
- **keep your responses anonymous** and any information you give confidential,
- **respect your wishes** to end participation in research (within a month as it may not be possible to remove data once analysis has been completed because data will be pooled together) or not take part in certain parts of the research,
- **be flexible** in terms of meeting time and location to fit with your availability.
- **share a summary** of my work with you when I finish.

Time frame: The main research will take place over 6-7 months from 24th February – end of October 2013. The analysis and write up of research will take place in Norwich between November 2013 – October 2014. I may still need to get in touch with you during this time. I will produce a thesis (max 100,00 words) and shorter pieces to communicate my work.

Contact details: carole.white@uea.ac.uk

Or contact supervisors: t.daw@uea.ac.uk, l.camfield@uea.ac.uk, e.allison@uea.ac.uk

AGREEMENT TO PARTICIPATE (Researcher's Copy)

I, (*insert name*) confirm that I have read the information sheet provided to me by the researcher, Carole White, and understood the purpose of the study.

I agree to participate in the interview, and for this to be recorded through use of a Dictaphone and for notes and transcripts to be made from recording for use in the research.

I agree to being identified in the research, through

- a) i) My occupation ii) type of fishing (for fishermen)
- b) the type of organisation/business I work for
- c) where I work or live (geographic location)

Any other comments:

Signature of Participant:

Code number (given by researcher):

Date:

.....

Contact details (e.g. email address, phone number):

Signature of Researcher/Research Assistant:

Date:

.....

Initial Interview Schedule with Fishermen and Checklist

Date / time:

Location:

Interview code number:

(Fill in as interview progresses or as check list at end)

Age: _____ Gender: M/F _____ Marital status: _____ Number of children: ___ **M:**
F:

Age of children and gender:

Partner involvement in fishing:

Owner skipper non-owner skipper crew

Type of boat: _____ **Under 10 Over 10 Bought boat in: Name of boat:**

Full-time (seasonal) full-time (all year round) part-time

Number of years fishing: _____ (If Owner skipper) Number of years owning boat: _____

Age started fishing: _____ Education until age: _____

Place of work: _____ Worked there for: _____ Other places worked:

Home is: _____ Lived there for: _____

Main species fished:

Semi-structured Interview Guide with Fishermen

Part 1: Personal – Wellbeing & aspirations

How long have you been working as a fisherman?

How would you describe what you do on a day to day basis? How does it change through the year?
Any other occupations apart from fishing?

How did you get involved in fishing? Is it in your family? What attracted you to fishing?

Is your partner involved in fishing? If so, how?

Do you feel that fishing / being a fisherman is important to you, and can you explain why? If someone asked you to describe your identity, what would be the first 3 words you would think of?

Would you be prepared to do another activity? Would you be prepared to move away from here and work elsewhere, in the fishing industry?

Would you like your children to have the same way of life as you? Would you like them to be commercial fishermen? Why?

What would you like for your children?

Part 2: characterisation of fishery

How would you describe this fishery? (PROMPT: Is there anything different about this fishery compared to others you are aware of?)

How are things looking at the moment in the fishery? (PROMPT: how has it changed?) Talk about the resource as well as those involved in fishing.

How would you describe the relationship between the fishery (those involved in it) and rest of the community here (those how are not directly involved)? (PROMPT: How are those working in fisheries perceived?)

Would you say that the community here is dependent on fishing? Why?

If fishing has declined, why do you think this is?

Part 3: fisheries & society

Would you say that this fishery is worth protecting? Why?

What do you personally value about this fishery?

Can you think of any traditions linked to this fishery? Do they still exist? Are religion or other beliefs still important?

Are there any cultural activities that occur here that are in some way linked to fishing? Is fishing celebrated in any way? For example, is there a festival, a local music band/artist...., celebrations?

Part 4: Adapting to change/ community structure and identity

What have been the main changes you have noticed in since you have lived here/been involved in the local community? What have been the main changes affecting people here (positively and negatively), and how have people been affected? (PROMPT: over last 10 years. Make clear who was affected))

What do you think the main causes of these changes were?

How have people reacted/adapted to these changes? Can you think of any positive or negative examples of this? Do you think this community is able to withstand (cope with) further/future changes? Compared to other fishing places you know, how has this community changed/reacted that may be different?

If you had to think about another fishing community which you see as doing well, which has adapted well to various challenges it has faced, where would it be? How is it different to here? Which fishing communities that you know of have not done so well?

What is important for living well together in this community?

What are the sources of illbeing in the community? How would you change or improve it?

How do you feel about the future? If you had a crystal ball, what do you think or what would you hope to see?

2.3 Governance Relationship Assessment

INTERVIEW QUESTIONS

1. **What are the most important relationships with other people that affect your life here as a fisher? *Ask to explain why these are important!***

Prompt: These can be people who might affect how you fish, where you go fishing, what you catch, and they can positive and negative relationships (some might be helpful, other might be unhelpful)

NOTE: Give 2-3 minutes to the person to digest this question, repeating the question if necessary. Note down any immediate responses – this gives the respondent chance to think openly about how to answer this, before we introduce the diagram which helps to structure the discussion. After a couple of minutes, show the respondent Fig 2 (next page) to help he/she think about relationships - ask whether there are other relationships that are important to their lives as fishers, according to the criteria of the diagram (starting with the fisher's family in the centre and moving outwards).

2. **Can you select the top 5 most important relationships that influence your fishing decisions, with 1 being the most important?** [Show/ read the list back to the person, so they can choose]
3. **Of these 5 important relationships, how satisfied are you with each of these relationships using the following scale?**

1	2	3	4
Very dissatisfied	Somewhat dissatisfied	Satisfied	Very satisfied

NOTE: You need to take care there that you don't ask about a person's satisfaction with relations with family members or other people who are within hearing distance, or in the same house, as it is inappropriate. Just skip that question if it occurs, focussing instead on other (non-present) relationships.

4. **Out of all these relationships you have mentioned, which would you most like to change. In what way would you change it?** Note: After his/her response, check whether there are any relationships that have been scored as 'very dissatisfied' (in Q3) but which were *not* mentioned as being changeable (in Q4). Clarify why they would/ or would not want to change these unsatisfactory relationships as a prompt.

What relationships influence your fishing decisions
(day to day and longer term)?



Figure 1 Governance Relationships Assessment (diagram adapted from Britton & Coulthard, 2013).

2.4 'Global' Person Generated Index of Quality of Life [GPGI]

Step 1: Identifying aspects of life that are important for living well here	Step 2: Scoring Satisfaction in Each Area	Step 3: Spending Points – what needs to be changed?
<p>We would like you to think of the areas of your life that are most important for you to be able to live well in this community.</p> <p>These can be things that you:</p> <ul style="list-style-type: none"> • need to have • need to be able to do • need to be able to be <p>Please tell us up to five areas in order of IMPORTANCE</p>	<p>In this part we would like you to score your level of satisfaction in the areas that you mentioned in step 1.</p> <p>This score should show how you felt about this area of your life over the past MONTH. Please score each area using this scale:</p> <p>5= Excellent - Exactly as you would like to be</p> <p>4 = Good - Close to how you would like to be</p> <p>3 = OK, but not how you would like</p> <p>2 = Poor but not the worst you could imagine</p> <p>1 = Bad - The worst you could imagine</p>	<p>If you were able to change these areas of life what would you seek to change?</p> <p>We want you to 'spend' 10 points to show which areas of your life you feel are most important to change in order to improve your overall quality of life.</p> <p>Spend more points on areas you feel are most important for you to change and less on areas that you feel are not so important.</p> <p>You don't have to spend any points on each area (i.e. you can choose to spend no points on one or more areas).</p> <p>You can't spend more than 10 points in total.</p>
<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>
<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>
<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>
<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>
<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>	<input style="width: 100%; height: 40px;" type="text"/>

Figure 2 GPGI questionnaire (McGregor et al., 2009). NB: Scale adapted to 1-5 instead of 1-6

Information sheet (for you to keep)

Hello! We are researchers from the University of East Anglia taking part in some work looking at what coastal places (such as Cromer) mean to different people, whether they are on holiday, live here or work here. The questions are about where you live, what you do when you are in Cromer and how you feel about this town or other coastal places in North Norfolk.

We are looking to talk to people who know Cromer fairly well, who either live here, have a holiday home here or visit regularly. Our questionnaire has 16 questions and will take about 10-15 minutes to fill out. Are you willing to take part in this research? If so, this information sheet is for you to keep and has some contact details on it if you need to get in touch later.

This work will contribute to the work of a PhD student, Carole White, who is funded by CEFAS (Centre for the Environment, Fisheries and Aquaculture Sciences). The answers will be kept anonymously and securely.

Your participation is voluntary and if you change your mind you can end your participation by contacting the Carole by email on carole.white@uea.ac.uk until 30th of September. You can also get in touch with Dr Laura Camfield who is supervising this work: +44 (0)1603 59 1885 laura.camfield@uea.ac.uk

You have the chance of winning a prize including a £15 voucher for lunch at a choice of cafes in Cromer. In order to take part in the prize draw, please fill out a separate response slip which I can give you. This will be kept separately from the rest of your answers.

IMPORTANT: Before we start the questionnaire, I need to confirm that you are giving consent for your responses to be used for this research and that you have understood the information above. I have made you aware that you can ask for your information to be withdrawn until the 30th September 2013, and that data collected will be kept anonymous (no personal contact details recorded) and secure.

Your data can be identified and removed by contacting us, using this unique questionnaire code..... *Please keep this for future reference*

Research assistant signature:

Questionnaire ID code:

Part 1: Your relationship with Cromer

What is your connection to Cromer? Can you tell me if you live here, have a holiday home here, if you are visiting or here for another reason (e.g. work, leisure, social)?

Live here now

1. Have you lived here all, part, or most of your life?

All my life Most of my life Part of my life (Question 2)

2. If part of your life, what was main reason(s) you moved here? (tick all that apply)

Work Retirement Family Friends Cheap prices For the beach/sea Weather Other: _____

Previously lived in: _____ (name of place moved from)

3. You live here: All year 6-8 months per year Less than 6 months per year (add notes)

4. How long have you lived here?

<2 years 2-5 years 6-9 years 10-14 years 15-20 years Over 21 years

Visiting

1. What brings you to Cromer? (tick all that apply)

Work Shopping Holiday Family Friends Services (e.g. doctor, school, library...) For the beach/sea Weather Other _____

2. Do you live in Norfolk?

Live in Norfolk (add name) _____ Don't live in Norfolk but visit regularly (add name) _____

3. How often do you come to Cromer? Daily 2-3 times a week Once a week 2-3 times per month

Once a month Every 2-3 months Less than 3 times per year

4. How long have you known Cromer?

<2 years 2-5 years 6-9 years 10-14 years 15-20 years Over 21 years

Holiday home

1. You have a holiday home in Cromer or elsewhere in North Norfolk _____

2. Where is your main home? _____ (please state a county)

3. What were your main reasons for buying a home here? (tick all that apply)

Family Friends Cheap prices For the beach/sea Weather Other: _____

4. How long have you had your holiday home? Year bought (optional): _____

<2 years 2-5 years 6-9 years 10-14 years 15-20 years Over 21 years

4b. In last 2 years, how often did you go there, on average per year?

More than twice/month (26-52/y) Less than twice per month (12-25/year) Less than once/month (6-11/year) 3-5 times per year Less than 3 times per year

4c. What is the longest period of time you have spent there?

A weekend or less than a week A week 2-3 weeks A month More than 1 month

4d. When do you go? Any time of year Mostly the summer Mostly the winter

3. As Cromer is a seaside town, I will now ask you questions related to the seaside.

11. Do you go to the beach in Cromer? Yes No (skip question)

If so, can you tell us about what you tend to do there? (PROMPT: For instance do you have any hobbies you do there, do you go for walks, sunbathe or swim there? How often do you do this?) (enter code below)

1= daily, 2= once/week or more, 3= less than once a week (1-3/month) 4= less than once/month 5=a few times/year
Circle all the activities and add code in boxes. Answer for Cromer but note if activities take place elsewhere

Sea angling		Bait digging		Sunbathe		Notes:
Sailing		Rock pooling		Walking on beach		
Diving		Beach combing		Canoeing or kayaking		
Surfing		Swimming		Kitesurfing		
Other (specify):		Other:				

12. Do you eat seafood (shellfish, fish...) generally? Yes No (skip next question)

If yes, how often on average?

daily a few times/week once/week once or twice/month every couple of months only a few times/year

13. If you buy seafood when you are in Cromer, where do you buy it from? (tick all that apply)

In a restaurant, café or pub Fish and chip shop Fishmongers Supermarket Never buy seafood in Cromer Other: _____ What type of seafood would you typically buy? _____

14. Do you know where in Cromer you can buy seafood harvested by local fishermen (East Anglia)?

Yes (add name of place) _____ No

15. Have you ever seen the boats from the local crab fishery going to sea or coming back?

Yes, coming back Yes, going out Yes, both coming and going
 No, I've never seen them come or go No, I don't know where the boats are

16. What are your overall impressions of this fishery? What do you know about it?

4. Postcard exercise

Finally, here are 16 images of Cromer (*pass postcards around*)

17. Looking at these pictures, does anything else about Cromer come to mind (that you did not mention earlier)? (*optional question*)

18. These pictures represent different aspects of Cromer. Choose three and tell me how they show what sort of place Cromer is from your experience (*enter number of card in order they are selected and explain what each ones show about Cromer*)

19. If you were walking along the promenade, in say 10 years, looking to the sea and to the town, what do you think you would notice has most changed (if anything) compared to how it is in these pictures? (*PROMPT: Think about how it will feel to be here, not only how it will look. For example, what about the kind of people who live, work and visit here?*)

Why? _____

That's it! And now a few more questions about you that we need. NB: We will treat your responses carefully and only use for the research at UEA.

Which age bracket are you in?

<19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 Over 65

Gender: F/M (*please circle*)

Occupation:

Questionnaire ID code:

Would you be interested to take part in another part of our research?

Don't worry if you don't have time for these activities. If you do, then just add your number here and we will be in touch with details. Or if you would like to be updated on this study later, please leave your email address with the research assistant (separate sheet). If you agree, we may contact you for a discussion group with some people we have met today or for a longer interview with you at a later stage.

Location, date & time of interview:

Notes (interviewer):

2.6a. Summary of results from questionnaire

Table 1 Composition of sample used for analysis from questionnaires in Cromer and Sheringham. NB: categories have been aggregated from questionnaire

		Cromer (74)					Sheringham (50)					
residents (40)		visitors (34)					residents (39)			visitors (11)		
Period of time lived in or known place	< 2 year	6	15%	< 2 year	0	0%	< 2 year	3	8%	< 2 year	1	9%
	2-9 years	7	18%	2-9 years	4	12%	2-9 years	18	46%	2-9 years	0	0%
	10-20 years	11	28%	10-20 years	9	26%	10-20 years	10	26%	10-20 years	3	27%
	Over 21 years	16	40%	Over 21 years	21	62%	Over 21 years	8	21%	Over 21 years	7	64%
Level of visit frequency/ knowledge of place	All my life	5	13%	3-6 times per year	11	32%	All my life	2	5%	3-6 times per year	1	9%
	Most of my life	12	30%	once per week	4	12%	Most of my life	3	8%	once per week	0	0%
	Part of my life	23	58%	daily or several times per week	19	56%	Part of my life	34	87%	daily or several times per week	10	91%
Age	<19-29	7	18%	<19-29	11	28%	<19-29	5	13%	<19-29	3	27%
	30-39	5	13%	30-39	2	5%	30-39	3	8%	30-39	2	18%
	40-49	5	13%	40-49	3	8%	40-49	11	28%	40-49	2	18%
	50-59	6	15%	50-54	10	25%	50-59	7	18%	50-54	2	18%
	60-64	8	20%	60-64	2	5%	60-64	9	23%	60-64	0	0%
	Over 65	9	23%	Over 65	6	15%	Over 65	4	10%	Over 65	2	18%
Gender	female	23	58%	female	22	65%	female	27	69%	female	8	73%
	male	17	43%	male	12	35%	male	12	31%	male	3	27%
Activities	80% eat seafood, 95% know where to buy local seafood, 92% have seen the fishing boats active 85% use the beach		88% eat it, 88% know where to buy local seafood, 82% have seen the fishing boats active 94% use beach			77% eat seafood, 85% know where to buy local seafood, 74% have seen the fishing boats active 77% use beach			73% eat seafood, 82% know where to buy local seafood, 64% have seen the fishing boats active 91% use beach			

2.6b. Postcards used in visitor and resident questionnaire and summary results

Figure 3 Postcard exercise (Cromer) in ordered of frequency of selection by participants (residents = 40; visitors=34) NB: each participant selected up to 3 cards



Total: 32 : residents: 21 (18%), visitors: 11 (11%)



Total: 29 (residents: 16, 14%; visitors: 13, 13%)



Total: 20 (residents: 11, 10%, visitors: 9, 9%)



Total: 16 (residents: 8, 7%, visitors: 8, 8%)



Total: 15 (residents: 9, 8%, visitors: 6, 6%)



Total: 14 (residents: 7, 6%, visitors: 7, 7%)



Total: 14 (residents: 2, 2%, visitors: 12, 12%)



Total: 13 (residents: 9, 8 %, visitors: 4, 4%)



Total= 13 (residents: 5, 4%; visitors: 8, 8%)



Total= 13 (residents: 7, 6%; visitors: 6, 6%)



Total= 10 (residents: 3, 3%; visitors: 7, 7%)



Total= 8 (residents: 6, 5%; visitors: 2, 2%)



Total= 6 (residents: 4, 3%; visitors: 2, 2%)



Total=5 (residents: 3, 3%; visitors: 2, 2%)



Total=5 (residents: 3, 3%; visitors: 2, 2%)



Total= 1 (residents: 1, 1%; visitors: 1, 1%)

Postcard exercise (Sheringham) in ordered of frequency of selection by participants (residents = 39; visitors=11). NB: each participant selected up to 3 cards



Total: 25 (residents: 22, 19% visitors: 3, 9%)



Total: 22 (residents: 17, 15% visitors: 5, 15%)



Total: 20 (residents: 13, 11% visitors: 7, 21%)



Total: 20 (residents: 16, 14% visitors: 4, 1)



Total: 13 (residents: 11, 9% visitors: 2, 6%)



Total: 11 (residents: 9, 8% visitors: 2, 6%)



Total: 9 (residents: 7, 6% visitors: 2, 6%)



Total: 7 (residents: 6, 5% visitors: 1, 3%)



Total: 7 (residents: 4, 3% visitors: 3, 9%)



Total: 6 (residents: 4, 3% visitors: 2, 6%)



Total: 3 (residents: 3, 3% visitors: 0)



Total: 2 (residents: 2, 2% visitors: 0)



Total: 1 (residents: 1, 1% visitors: 0)



Total: 1 (residents: 1, 1% visitors: 0)



Total: 1 (residents: 0, visitors: 1, 3%)



Total: 1 (residents: 0, visitors: 1, 3%)

2.7 Questionnaire for Get Into Fishing Programme

Information sheet (for you to keep)

Hello! I am Carole White, a research student from the University of East Anglia working on fisheries in North Norfolk, focusing on inshore crab and lobster fishing. Part of this is about the employment of young people.

This research is entirely separate to the Prince's Trust apprenticeship programme and work. I will use the information I collect for my research project. The answers will be kept anonymously and securely. This questionnaire should take about 10 minutes to complete.

Are you willing to take part in this research? If so, you can keep this information sheet which has some contact details on it if you need to get in touch later.

Your participation is voluntary and if you change your mind you can end your participation by contacting the Carole by email on carole.white@uea.ac.uk until May 1st 2014. It is funded by CEFAS (Centre for the Environment, Fisheries and Aquaculture Sciences). You can also get in touch with Dr Laura Camfield who is supervising this work: +44 (0)1603 59 1885 laura.camfield@uea.ac.uk.

Code number: _____

IMPORTANT: Before we start the questionnaire, I need to confirm that you agree for your responses to be used in this research and that you have understood the information above. You are aware that you can ask for your information to be withdrawn until the 1st May 2014, and that data collected will be kept anonymously and securely.

Name:

Code number: _____

Signature:

1. Personal details *These first few questions are about you and where you live*

1. Male / Female (please circle)

3. Age: _____

2. Where do you live currently (most of the time)? _____ (add place name)

3. How long have you lived there?

All my life (skip next question) < 1y 1-2 y 3-5y 6-10y >10 y

4. Where did you live before this?

Elsewhere in Norfolk: _____ (add place)

Outside of Norfolk: _____ (add county)

5. Do you have children? Yes, I do No, I don't No yet, but I will soon

6. How likely do you think it is that you will continue living in Norfolk over next 5 years (1 = very likely, 4= very unlikely)? _____

Why?

7. Do you already have any qualifications?

Yes (list here) _____

No, not yet

2. Employment *Now I will ask you about what kind of work you have done in the past*

8. What other types of work have you done in the past?

9. What types of work have you been most interested in doing in the past?

10. What is the most important to you in a job? (First allow person to list freely, then present cards to choose from)

Step 1: Allow participant to list words freely

Step 2: Show cards.

- Select cards of what is important to you in a job
- Is there anything else that is important to you but is not listed on cards?

If so, write on a separate card

Step 3: Order in importance with 1 being most important

3. Experience with fishing

11. Did you know any fishermen before starting the programme?

Yes (*How do you know them?*) _____

No, I don't know any (*skip next question*)

12. If you know some fishermen, have you ever talked to them about fishing in the past?

Yes (*What did they tell you?*) _____

—

No, never (*Why not?*) _____

13. Had you thought about working in fishing before hearing about the Prince's Trust programme?

Yes, I have worked in fishing before. If so, what did you do (when and how long for) and where?

Yes, I have tried to get a fishing job before but I have never done any fishing work because

a) I did not have the certificates I needed

b) I did not know how to go about it, or who to ask

c) No opportunities were available

d) Other reason: _____

No, I have never thought about a job in fishing before because

a) It never crossed my mind

b) I did not think there were any job opportunities

c) I have been focusing on types of work

d) Other: _____

14 CARDS AVAILABLE FOR SELECTION:

These were on cut out card with sticky tape so they could pick them off and stick them on a separate card in order of preference.

Fixed regular working hours	Flexible irregular working hours
Doing something I know, that I am familiar with	Regular stable income
Irregular income, with highs and lows	Being my own boss (self-employed)
Good pension	Exciting, challenging
Interacting with people (other than co-workers)	Secure reliable employment
Good holidays, time off	Getting on well with co-workers
In my local area (close to friends and family)	Physical outdoor work

Follow up questionnaire

What did you do for your work experience? Who did you work with?

A couple of weeks ago, I asked you what was most important to you in a job.

Look at your answers. Is there anything missing?

Can you put these in order or most important (1) to least important (5)?

If you were to continue the work experience you did last week, how likely is it that this work will offer you this?

	Your response to What is the most important to you in a job?	How likely is it that this work will offer you this?			
1		Very likely	Likely	Unlikely	Very unlikely
2		Very likely	Likely	Unlikely	Very unlikely
3		Very likely	Likely	Unlikely	Very unlikely
4		Very likely	Likely	Unlikely	Very unlikely
5		Very likely	Likely	Unlikely	Very unlikely
		Very likely	Likely	Unlikely	Very unlikely

--	--	--

Is it ok to contact you in about a month's time to see how you are getting on?

YES NO

If so please leave a number here: _____

Thanks!

2.8 Summary of Results from Get into Fishing questionnaire

10 Male / 1 Female . Age: between 17-23

Length of time lived locally

73% 8/11 have lived in Norfolk all their lives. One moved with mother to Norfolk 3-5 years ago. Two have moved to Norfolk in last year to be with their partner.

Children

1 out of 11 has a baby on the way. Rest do not have children

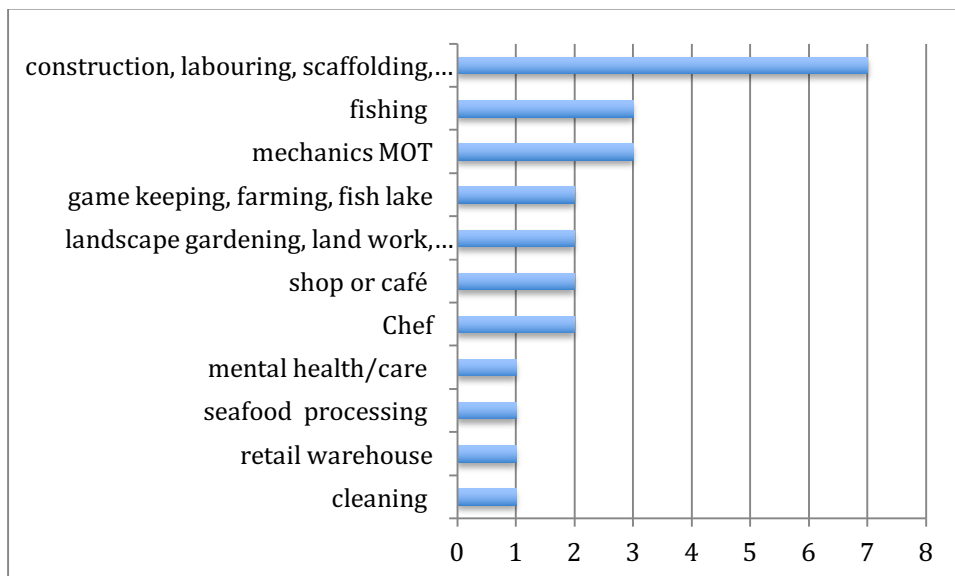
How likely do you think it is that you will continue living in Norfolk over next 5 years (1 = very likely, 4= very unlikely)? ____ Why?

Response	Number of responses	% of responses	Reasons given
Very likely (1)	8	73%	Partners child and family, Beautiful place, away from a city, Like it in Norfolk, Job and friends, No reason to move, Like it here, quiet
Likely (2)	3	27%	Partner here, may want to work abroad
Unlikely (3)	1	9%	has a job starting elsewhere

Qualifications

36% (4/11) has qualifications above GCSEs including NVQs, BTEC or GCSEs). A few had some certificates such as health & hygiene or sea survival already.

What other types of work have you done in the past?



What types of work have you been most interested in doing in the past?

Type of work	Number of responses
mental health/care	1
Chef	1
game keeping, farming, fish lake	2
fishing	5
construction, labouring, scaffolding, roofer	1
manual labour	1

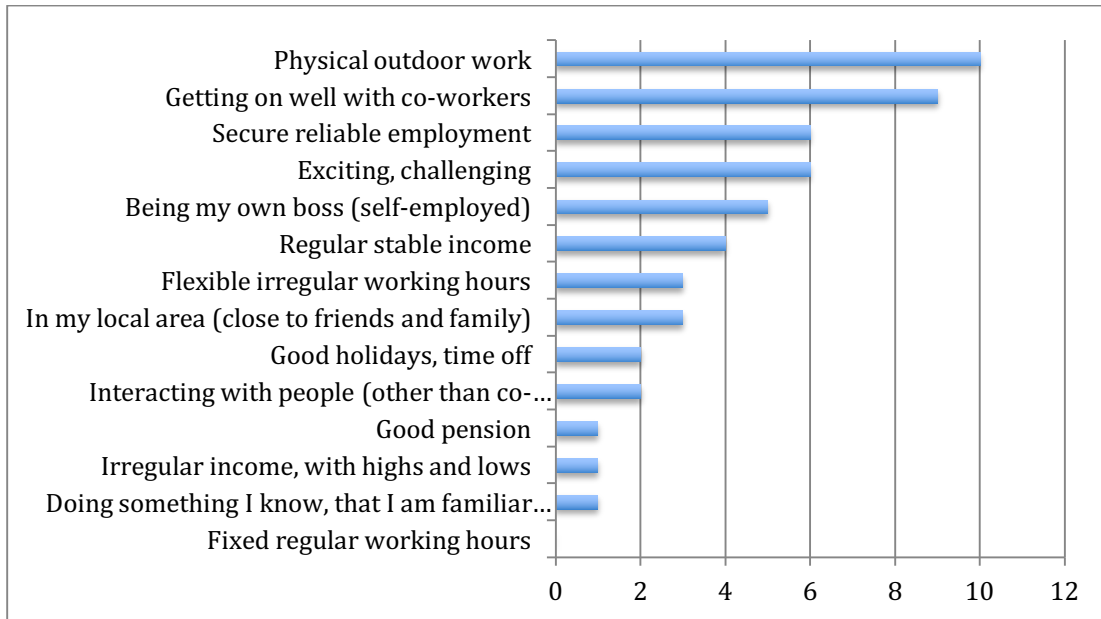
What is the most important to you in a job? (First allow person to list freely, then present cards to choose from)

Step 1: Allow participant to list words freely

Being able to support self, earning a living	x2
Dangerous job, something different and unpredictable	
Good boss	
Good people, Good atmosphere	x2
Rewarding, being happy in a job.	
Enjoyment	x2
Not to feel real pressure or stress	
Confidence	
Money (get driving lessons)	

Step 2: Show cards. (In practice this was limited to between 5-7 cards, one respondents only picked 3 cards)

Select cards of what is important to you in a job



Is there anything else that is important to you but is not listed on cards?

If so, write on a separate card

Feeling respected and appreciated	
Access to transport	x2

Step 3: Order in importance with 1 being most important

'Secure reliable employment' was chosen by 3 young people as the first most important, out of the 6 who chose this response. It featured in the top 3 most important of the 6 who chose this response.

'Getting on well with others' was chosen as second most important by 6 out of the 9 who chose this in their top 5 choices. The other 3 young people chose this 4th or 5th most important.

Finally although 'physical outdoor work' was selected in the top 5 of most young people (10 selected it out of 11 in total). However, only 4 of these chose this in their top 3 most important.

4. Experience with fishing

Did you know any fishermen before starting the programme?

64% Yes (*How do you know them?*) Friends, family, family friends or just from chatting to them on beach.

If you know some fishermen, have you ever talked to them about fishing in the past?

71% Yes

(What did they tell you?)

Needed sea survival, Try it and see, Couldn't do it because of insurance, Not to go into it. Dangerous. Cold (winter), Go away and get qualifications, general advice

29% No, never (*Why not?*) Not had opportunity to do so

Had you thought about working in fishing before hearing about the Prince's Trust programme?

27% Yes, I have worked in fishing before.

27% Yes, I have tried to get a fishing job before but I have never done any fishing work because

Mix of reasons chosen:

I did not have the certificates I needed

I did not know how to go about it, or who to ask

No opportunities were available

Other reason: ___insurance_____

45% No, I have never thought about a job in fishing before because

Mix of reasons chosen:

It never crossed my mind

I did not think there were any job opportunities

I have been focusing on types of work

Did not live by the coast

Follow up post apprenticeship programme at the closing ceremony of the Get Into Fishing Programme:

Six out of 11 were present to collect certificates.

One had done boat experience with his dad in Kings Lynn, (may be opportunities in future but not at the moment)

One had gone out for a day from Wells (may have a job continuing with the skipper),

One went out from Cromer and was sick so had to stick to steering boat,

One did 2 days on a boat from Cromer (may continue, his dad is a fisherman but does not have his own boat),

One went on a boat from Weybourne.

And one did not go out on a boat because the skipper (cromer) said it was too rough for his boat to go out). May go the following week.

Out of the ones who were not there:

One went on a boat from Wells (was on another course on final day)

One went on a boat from Lowestoft with dad (probably working on a boat on day of course)

Two went to processing with Kevin Jonas and one is continuing to work there. The other (not clear whether he completed the work experience)

One was supposed to go on a boat but has not been in touch.

In summary,

One has been employed at processing factory

At least two may continue to go to sea (unclear whether paid or not or how long for).

Three of the young people's fathers are fishermen but they do not own the boats they fish on. Two of these had been to sea before on occasional trips. Another young person had been on occasional trips also and has some family in fishing businesses (but not his father).

A few others had connections to fishermen through friends or family but had not gone out on boats. If they had asked about fishing before they had generally been told that they needed to get certificates and that they could not be taken out due to insurance reasons.

At least 5 out of the 11 had thought about fishing before the PT programme but the majority had not

3 Tables with reference to news articles and other grey literature

Table 3.1 News articles and reports relating to historical changes and shocks in the fishery

Year	Source	Headline/ Title	
1974	Fishing News. 9 August 1974	Crabs not hit by pollution.	Overstrand fishermen report that their gear is covered in green slime due to the sewer outfall. CEFAS scientists say that the low catches are due to natural causes including low sea temperatures due to cold wind in May.
1978	The Times 25.01.1978	Europe may be new outlet form Cromer crabs.	Reported that soaring transport costs have made it uneconomic to send crab by British rail. Most crabs are now only sold in North Norfolk. There are 28 full time boats and about 12 part-time boats which use about 5000 pots per day during the season. Lobsters have declined in recent years. Crab fishermen are thinking about making up the lost income by exporting to markets in France or Spain where live crabs are bought by consumers.
1984	North Norfolk News 20.07.1984.	Factory dust up	The four year old factory in Cromer - which doubled in size the year before -processes 250,000 crabs per year. Concerns concern the dusty road which leads to the factory. The factory owners say that they will have to shut down unless Norfolk County council invest in tarmacking the road.
1990	Eastern Daily Press. 05.6.1990.	Crab fishermen face ruin in shellfish scare	Half the fishermen are not going to sea because most hotels have taken crab off the menu.
1990	Eastern Daily Press 8 th March 1990.	Fingers crossed at the start of crab season.	Mild winters blamed for low catches in recent years. Several crab fishermen are reported to have left industry. Julie Davies shop owner says crabs will be sold 60p early in the season. In the summer the price is usually £2.
1990	North Norfolk News 8 June 1990	Crab crisis blamed on 'blunder'	The crab industry in Norfolk is on the point of collapse due to a government warning over toxic algae and seafood which was applied nationally. The health scare concerned the North east but not east Anglia. Local restaurants had taken crab off the menu.
1990	Classic boats		Suggests that part-time fishermen have increased for last 15 years. There is a fleet of 16 on the beach
1991	Eastern Daily Press 28 th August 1991	Health warning on seafood stalls.	Increased regulation on seafood stalls concerning hygiene in seafood.
1992	Eastern Daily Press 9 March 1992.	Crabmen find it a shell-shocking time.	Apart from the side-effects of the health scare, offshore boats are also turning to crab to supplement income which is depressing prices further. Call for a minimum price to be set by the government and for subsidies from the North Norfolk fishermen's society. The problem is low prices rather than quantity of crabs. Setting up a cooperative is mentioned a potential way to tackle this issue.

Year	Source	Headline/ Title	
1992	North Norfolk News. 13/03/1992	Crab fishermen feeling the pinch.	Prices have not recovered following a false health scare in late 1980s. 40 boats and 100 fishermen in the fishery. Prices for live crab have fallen from £6/stone to £4/stone (95p/kg, to 63p/kg). Concerns expressed about part time fishermen and the need to bring in a license.
1992	Eastern Daily Press. 5 May 1992.	Fisheries scientists focus on a humble crustacean.	A tagging experiment starts in North Norfolk.
2003	North Norfolk News. May 29. 2003.	Days are numbered for the old double-enders.	Increased speed and range with fibreglass boats 21ft long. Valerie Teresa is last wooden crab boat built and was replaced by a boat called Aurora

Table 3.2 Information extracted from ESFC and IFCA reports

Year	Type of report	Summary of information
1966	ESFC reports, letter from solicitors 2 nd December 1966, and news articles	Legal action against fishermen for using crab as bait. Letter of prosecution in King's Lynn. Local news report that fishermen protest in Sheringham over lack of consultation over an Eastern Sea Fisheries Committee by-law.
1982	ESFC memorandum, 18 th February and 18th October	Crab and lobster licensing scheme discussed by ESFC. After consultation with fishermen, it was rejected. Fishermen perceived it would give too much control to the ESJC. Rejected.
1984	Note from and interview by someone at Cromer museum. 'Messers Parking and Williams of Cromer.'	Small factory was founded in 1980. Mr Williams was a fisherman from East Runton and previously deep sea trawler. Employ 25 seasonal staff. Machinery used to extract crab meat. Buy crab directly from crab fishermen. They pay fishermen more than they would get from factories in Kings Lynn or Boston but less than what fishermen can get from local merchants and businesses. Business doubled in 1983. Little or nothing is exported abroad. A contract to US airforce recently lost due to poor state of road leading to factory.
1990	ESFC Memorandum	ESFC raises issue of crabs illegally being used as bait. suggests a free license for fishermen with a license which would mean a number is added to dhans to allow identification of pots.
1992	Letter by ESFC to CEFAS 27 th May	At a North Norfolk Fishermen's meeting it was suggested that Bacton gas line may be causing low catches. While crabs were present in quantity, when caught they were splitting across the shell - "Is this a feasible argument and worthy of investigation? Or merely an old wives' tales of the type which fishermen are notorious.
Undated. Estimated early 1990s		Proposal to limit number of pots to 200 in the water for full-time fishermen. Prohibit all part-time fishing for profit. Tensions between part-time fishermen and full-time fishermen

Table 3.3 News articles relating to different marine and fisheries governance issues from 2006-2015

Issue	Publication	Title	Date	weblink
Coastal Development and Planning	The Guardian	Fishermen cry foul over UK's scramble for gas	10/04/06	http://www.theguardian.com/environment/2006/apr/10/fish.food
Coastal Development and Planning	North Norfolk News	Sheltering barge angers north Norfolk fishermen	11/11/10	http://www.norfolknews.co.uk/news/sheltering_barge_angers_north_norfolk_fishermen_1_724553
MCZ	BBC News	Chalk reef protection plan 'not enough'	09/10/11	
MCZ	North Norfolk News	Fears over 'no-go' conservation areas affecting coastline in parts of Blakeney, Morston, Cley, Holme and Cromer	10/10/11	http://www.norfolknews.co.uk/news/fears_over_no_go_conservation_areas_affecting_coastline_in_parts_of_blakeney_morston_cley_holme_and_cromer_1_1084681
FLAG	Great Yarmouth Mercury	Joy as £2.4m funding for Norfolk fishing heritage is confirmed	25 November 2011	http://www.greatyarmouthmercury.co.uk/news/joy_as_2_4m_funding_for_norfolk_fishing_heritage_is_confirmed_1_1137704
MCZ	BBC News	Crab and lobster fishermen fear for their livelihoods	08/01/12	
Certification	BBC News	'Cromer Crab' name protection plans scrapped	27/09/12	
Certification	eveningnews24	Update: Fishing industry rejects protected status for Cromer crab ahead of auction of former factory's machinery	September 25, 2012	http://www.eveningnews24.co.uk/news/update_fishing_industry_rejects_protected_status_for_cromer_crab_ahead_of_auction_of_former_factory_s_machinery_1_1527987
Factory	Eastern Daily Press	Cromer crab factory closure described as 'bitter blow' by campaigners	May 24, 2012	http://www.edp24.co.uk/what-s-on/food_and_drink_2_5148/norfolk-food-features/update_cromer_crab_factory_closure_described_as_bitter_blow_by_campaigners_1_1388336
IFCA	Eastern Daily Press	Former Royal Navy captain swaps Somalian pirates for leading role at Eastern Inshore Fisheries and Conservation Authority in King's Lynn	October 29, 2012	http://www.edp24.co.uk/news/environment/former_royal_navy_captain_swaps_somalian_pirates_for_leading_role_at_eastern_inshore_fishe

Issue	Publication	Title	Date	weblink
				ries_and_conservation_authority_in_kings_lynn_1_1673022
FLAG	Eastern Daily Press	Fishery visitor centres plan for Cromer, Sheringham, Wells and Stiffkey - Environment - Eastern Daily Press	January 4, 2013	http://www.edp24.co.uk/news/fishery_visitor_centres_plan_for_cromer_sheringham_wells_and_stiffkey_1_1781718
MCZ	North Norfolk News	North Norfolk fishermen need to be consulted more on Marine Conservation Zones	07/03/13	http://www.northnorfolknews.co.uk/news/north_norfolk_fishermen_need_to_be_consulted_more_on_marine_conservation_zones_1_1968481
Windfarms	BBC News	Norfolk Race Bank wind farm sold to DONG Energy for £50m	13/12/13	
Fisheries regulations	Eastern Daily Press	Call for North Sea survey to protect Cromer's iconic crab as overfishing concerns raised	November 18, 2013	http://www.edp24.co.uk/news/call_for_north_sea_survey_to_protect_cromer_s_iconic_crab_as_overfishing_concerns_raised_1_3010525
MCZ	The Conversation	Marine conservation bid upsets everyone it aimed to please	10/12/13	
Windfarms	The Telegraph	Norfolk crab fishermen forced out to make way for offshore wind farm works	13/08/14	http://www.telegraph.co.uk/earth/energy/11031591/Norfolk-crab-fishermen-forced-out-to-make-way-for-offshore-wind-farm-works.html
Fisheries regulations	Eastern Daily Press	Pace of moves to protect sea off Cromer is too slow, say MPs	June 21, 2014	http://www.edp24.co.uk/news/pace_of_moves_to_protect_sea_off_cromer_is_too_slow_say_mps_1_3651562
Windfarms	ITV News	Fisherman protest over wind farms	05/03/14	http://www.itv.com/news/anglia/update/2014-03-05/norfolk-fishermen-in-protest-over-wind-farms/
Windfarms	Fakenham Times	Wells hopes for windfall from Race Bank wind farm	December 11, 2014	http://www.fakenhamtimes.co.uk/news/wells_hopes_for_windfall_from_race_bank_wind_farm_1_3881378
Windfarms	The Telegraph	A fight on the beaches for beleaguered Jack Sprat	16/08/14	http://www.telegraph.co.uk/foodanddrink/11037501/A-fight-on-the-beaches-for-beleaguered-Jack-Sprat.html

Issue	Publication	Title	Date	weblink
Fisheries regulations	The Telegraph	Whelk stocks under threat from overfishing	16/11/14	http://www.telegraph.co.uk/news/earth/environment/11233126/Whelk-stocks-under-threat-from-overfishing.html
MCZ	ITV News	Fishermen's fears for famous Cromer crabs	02/02/15	http://www.itv.com/news/anglia/2015-02-02/fishermens-fears-for-famous-cromer-crabs/
MCZ	Eastern Daily Press	Elizabeth Truss, fishermen, and Ann Steward hold talks over plans for north Norfolk Marine Conservation Zone	February 12, 2015	http://www.edp24.co.uk/news/elizabeth_truss_fishermen_and_ann_steward_hold_talks_over_plans_for_north_norfolk_marine_conservation_zone_1_3954309
Certification	Eastern Daily Press	Working party to look at pros and cons of protecting Cromer crab brand name	26/02/15	http://www.edp24.co.uk/news/working_party_to_look_at_pros_and_cons_of_protecting_cromer_crab_brand_name_1_3969244

4 Fisheries data compiled from different sources

Table 4.1 Crab landings data compiled for beach boats and harbour boats in North Norfolk

NB: For simplicity, Cromer, Sheringham, Wells, Brancaster and Blakeney are shown only. Catches from smaller Norfolk beaches around were usually included in landings under Cromer and Sheringham. Catches are presented in kilogrammes. Data from Eastern Sea Fisheries Committee reports is used where possible. See footnotes for explanation of alternative sources which were used to fill gaps.

Year	Cromer	Sheringham	Beach boats	Wells	Blakeney	Brancaster	Harbour boats	All boats
1956 ²	-	-	285,763	-	-	-	-	285,763
1957	-	-	274,383	-	-	-	-	274,383
1958	-	-	424,606	-	-	-	-	424,606
1959	-	-	509,090	-	-	-	-	509,090
1960	-	-	512,748	-	-	-	-	512,748
1961	-	-	462,403	-	-	-	-	462,403
1962	-	-	301,512	-	-	-	-	301,512
1963	-	-	182,076	-	-	-	-	182,076
1964	-	-	194,878	-	-	-	-	194,878
1965	-	-	373,905	-	-	-	-	373,905
1966	-	-	333,092	-	-	-	-	333,092
1967	-	-	297,130	-	-	-	-	297,130
1968	-	-	329,244	-	-	-	-	329,244
1969	-	-	297,117	-	-	-	-	297,117
1970 ³	-	-	329,400	-	-	-	-	329,400
1971	-	-	349,619	-	-	-	-	349,619

² Data from 1956-1966 data is from MAFF (1966). Data until 1977 from the Eastern Sea Fisheries Reports show total crab landings in the area which are not broken down by port. Crab landings were mostly from Norfolk but some are included from Suffolk. At this time, all boats targeting crab from Norfolk operated from the beach

³ 1969-1970 taken from a hand written record ESFC

Year	Cromer	Sheringham	Beach boats	Wells	Blakeney	Brancaster	Harbour boats	All boats
1972	-	-	348,857	-	-	-	-	348,857
1973	-	-	273,061	-	-	-	-	273,061
1974	-	-	315,687	-	-	-	-	315,687
1975	-	-	374,258	-	-	-	-	374,258
1976	-	-	481,197	-	-	-	-	481,197
1977	-	-	518,333	-	-	-	-	518,333
1978 ⁴	435,830	250,505	686,335	-	-	-	-	686,335
1979	335,598	187,967	523,565	-	-	-	-	523,565
1980 ⁵	347,000	292,000	639,000	-	-	-	-	639,000
1981 ⁶	-	-	414,443	-	-	-	-	414,443
1982 ⁷	332,260	228,860	561,120	-	-	-	-	561,120
1983	524,692	394,688	919,380	700	-	-	700	920,080
1984	274,733	215,041	489,774	8,000	-	-	8,000	497,774
1985	336,000	319,000	655,000	1,000	-	-	1,000	656,000
1986 ⁸	325,000	303,000	628,000	10,000	-	-	10,000	638,000
1987 ⁹	646,000	597,000	1,243,000	30,000	-	-	30,000	1,273,000
1988	406,000	415,000	821,000	8,000	-	-	8,000	829,000
1989	366,000	274,000	640,000	207,000	26,000	-	233,000	873,000
1990	458,000	285,000	743,000	430,000	50,000	-	480,000	1,223,000
1991	343,000	308,000	651,000	559,000	48,000	-	607,000	1,258,000
1992	222,000	205,000	427,000	376,000	88,000	-	464,000	891,000
1993	170,000	168,790	338,790	424,650	167,210 ¹⁰	-	591,860	930,650
1994	272,350	333,617	605,967	580,000	199,000	-	779,000	1,384,967
1995 ¹¹	319,860	200,326	520,595	638,000	230,000	25,702	894,167	1,414,353

⁴ Data for 1978-1979 from CEFAS published reports?

⁵ Data provided by the ESFC to Graham Holsely MSc with records from 1980-1995 (records for 1981 and 1982 are missing)

⁶ From a letter from the Committee to Mr Williams. Summary of records for North Norfolk for crab from 1977 to 1991 which includes Bacton to Wells. 1981 landings data taken from here as no other sources were found for this.

⁷ 1982-1985 Sheringham and Cromer data comes from CEFAS data as ESFC reports landings for area not broken down by species/landing site. I use 1983-1989 data from Graham Holsely MSc thesis for calculating prices as CEFAS does not provide this.

⁸ 1993 ESFC report contained broken down data for 1986-1993 for Sheringham and Cromer but prices missing until 1989

⁹ Data for 1987 was found to be different in three different sources linked to ESFC. I have used data from the annual report in 1993 which is repeated in several other reports.

¹⁰ Includes lobster landings for Blakeney

¹¹ 1995 Wells data for harbours comes from Graham Holsely MSc thesis. Rest of catch data is from ESFC report.

Year	Cromer	Sheringham	Beach boats	Wells	Blakeney	Brancaster	Harbour boats	All boats
1996	226,272	233,689	459,961	502,375	228,847	34,617	765,839	1,225,800
1997	418,736	218,388	637,124	455,623	205,054	14,101	674,778	1,311,902
1998	333,810	189,039	522,849	436,491	183,477	-	619,968	1,142,817
1999	331,399	170,128	501,527	398,652	204,667	19,013	622,332	1,123,859
2000	242,555	402,115	644,670	485,095	195,404	14,052	694,551	1,339,221
2001	325,195	55,860	381,055	97,862	202,813	50,653	951,328	1,332,383
2002	316,289	73,280	389,569	733,884	175,348	36,457	945,689	1,335,258
2003	224,101	45,620	269,721	676,529	148,009	31,800	856,338	1,126,059
2004 ¹²	216,616	90,766	307,382	-	-	-	700,000	1,007,382
2005	141,219	29,309	170,528	453,085	131,248	36,946	621,279	791,807
2006 ¹³	126,137	16,523	142,660	260,980	61,691	15,635	338,306	480,966
2007	125,885	90,920	216,805	296,024	59,039	20,050	375,113	591,918
2008	184,000	37,000	221,000	455,000	51,000	36,000	542,000	763,000
2009	170,000	47,000	217,000	425,000	58,000	33,000	516,000	733,000
2010	152,000	42,000	194,000	405,000	38,000	36,000	479,000	673,000
2011	194,000	52,000	246,000	375,000	29,000	21,000	425,000	671,000
2012	245,000	37,000	282,000	340,000	18,000	22,000	380,000	662,000
2013	211,000	52,000	263,000	225,000	34,000	18,000	277,000	540,000
2014	282,000	67,000	349,000	275,000	43,000	35,000	353,000	702,000

¹² From CEFAS data. ESFC report not found for 2004.

¹³ There are some discrepancies between this data and data provided on record by CEFAS. In 2006, CEFAS data reports slightly higher landings: 209,036.90kg for Cromer and 40,056.90kg for Sheringham. ESFC reports 453,085 from Wells and 131,248 from Blakeney. I have used ESFC data for 2006-2007 and IFCA (2015 data) for 2008-2014 which comes from monthly shellfish returns.

Table 4.2 CEFAS data

Year	Cromer	Sheringham
1982	332,260	228,860
1983	524,692	394,688
1984	274,733	215,041
1985	-	-
1986	274,225	212,196
1987	468,539	792,499
1988	409,000	418,246
1989	171,759	124,057
1990	389,035	267,773
1991	344,888	310,090
1992	192,435	172,623
1993	66,752.10	64,669.90
1994	272,349.60	333,616.90
1995	325,082.10	203,512.80
1996	226,272.20	233,689.10
1997	256,550	226,475.30
1998	309,826.60	325,267.60
1999	339,859	170,128
2000	283,952	172,556
2001	324,630	55,318
2002	297,941	89,262
2003	301,639	72,573
2004	216,616	90,766
2005	154,537.70	29,317
2006	209,036.90	40,056.90
2007	150,619	43,231
2008	139,529.70	38,347.50
2009	24,189.90	10,838.20
2010	29,069.10	7,874.70
2011	30,744.40	3,094.80
2012	43,319.90	14,762

Table 4.3 Crab landings per landing site from buyers and seller's forms, provided by the the MMO

	Cromer	Sheringham	Beach	Wells	Blakeney	Brancaster	Harbour	Total
2008	145,919	109,706	255,625	503,451	62,307	34,503	600,261	855,885
2009	24,190	10,838	35,028	163,660	25,876	10,585	200,121	235,150
2010	29,307	7,875	37,182	319,327	17,742	10,415	347,484	384,666
2011	30,744	2,765	33,509	175,109	18,995	9,299	203,403	236,912
2012	40,476	9,210	49,686	137,054	17,850	6,264	161,168	210,854

Table 4.4 Approximate landings taken from IFCA (2015) report.

	Cromer	Sheringham	Beach	Wells	Blakeney	Brancaster	Harbour	Total
2006	225,000	52,000	277,000	250,000	25,000	9,000	284,000	561,000
2007	175,000	47,000	222,000	250,000	37,000	31,000	318,000	540,000
2008	184,000	37,000	221,000	455,000	51,000	36,000	542,000	763,000
2009	170,000	47,000	217,000	425,000	58,000	33,000	516,000	733,000
2010	152,000	42,000	194,000	405,000	38,000	36,000	479,000	673,000
2011	194,000	52,000	246,000	375,000	29,000	21,000	425,000	671,000
2012	245,000	37,000	282,000	340,000	18,000	22,000	380,000	662,000
2013	211,000	52,000	263,000	225,000	34,000	18,000	277,000	540,000
2014	282,000	67,000	349,000	275,000	43,000	35,000	353,000	702,000

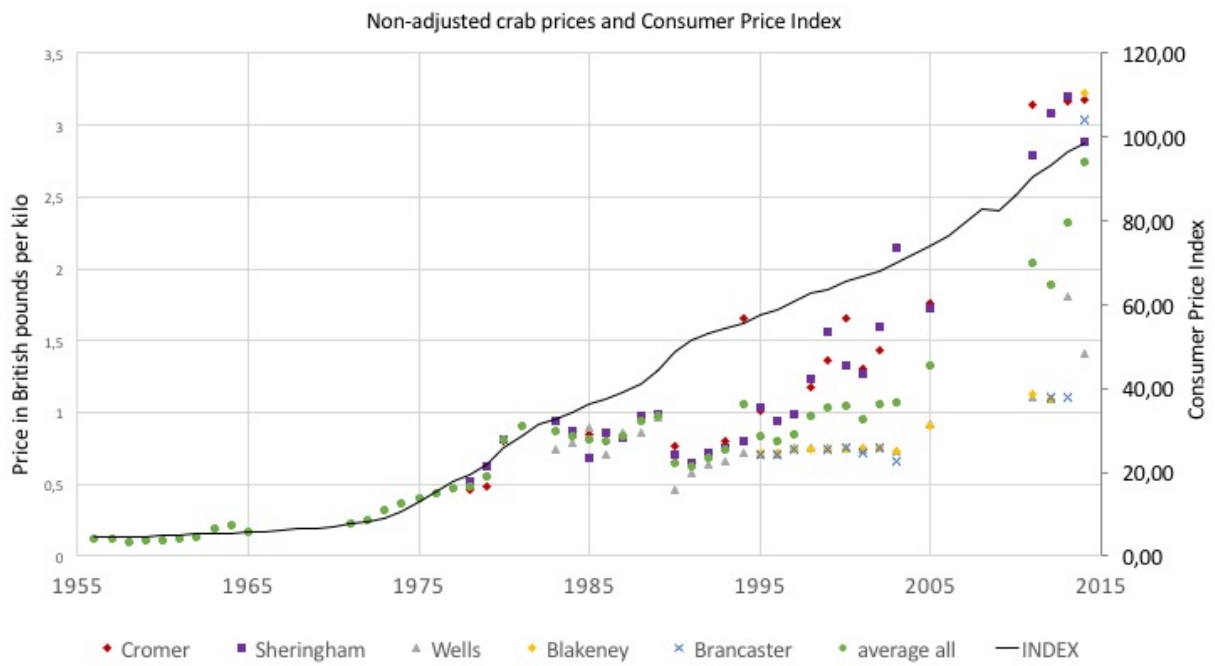
Table 4.5 First sale price for crab in pounds sterling. Original data and corrected for Consumer Price Index

Year	Historical price data							Converted price data using CPI									
	Cromer	Sheringham	Wells	Blakeney	Brancaster	Beach boats	Harbour boats	All boats	Cromer	Sheringham	Wells	Blakeney	Brancaster	Beach boats	Harbour boats	All boats	CPI
1956								£0,12								£2,61	4,42
1957								£0,12								£2,69	4,58
1958								£0,10								£2,15	4,72
1959								£0,11								£2,38	4,74
1960								£0,11								£2,34	4,79
1961								£0,12								£2,43	4,96
1962								£0,13								£2,60	5,17
1963								£0,19								£3,55	5,27
1964								£0,22								£3,99	5,44
1965								£0,17								£2,92	5,70
1966																	5,92
1967																	6,08
1968																	6,36
1969																	6,70
1970																	7,13
1971								£0,22								£2,88	7,81
1972								£0,25								£3,03	8,36
1973								£0,32								£3,47	9,12
1974								£0,36								£3,45	10,59
1975								£0,40								£3,03	13,15

Year	Historical price data							Converted price data using CPI									
	Cromer	Sheringham	Wells	Blakeney	Brancaster	Beach boats	Harbour boats	All boats	Cromer	Sheringham	Wells	Blakeney	Brancaster	Beach boats	Harbour boats	All boats	CPI
1976								£0,44								£2,87	15,33
1977								£0,47								£2,67	17,76
1978	£0,46	£0,52				£0,49		£0,49	£2,40	£2,68				£2,54		£2,54	19,23
1979	£0,49	£0,62				£0,56		£0,56	£2,24	£2,85				£2,55		£2,55	21,81
1980	£0,81	£0,81				£0,81		£0,81	£3,13	£3,14				£3,13		£3,13	25,73
1981								£0,90								£3,14	28,78
1982																	31,26
1983	£0,94	£0,94	£0,74			£0,94	£0,74	£0,87	£2,89	£2,89	£2,25			£2,89	£2,25	£2,68	32,70
1984	£0,87	£0,87	£0,79			£0,87	£0,79	£0,84	£2,53	£2,53	£2,29			£2,53	£2,29	£2,45	34,33
1985	£0,85	£0,68	£0,89			£0,77	£0,89	£0,81	£2,34	£1,87	£2,44			£2,10	£2,44	£2,22	36,41
1986	£0,86	£0,86	£0,71			£0,86	£0,71	£0,81	£2,27	£2,27	£1,87			£2,27	£1,87	£2,14	37,65
1987	£0,83	£0,82	£0,85			£0,83	£0,85	£0,84	£2,13	£2,09	£2,18			£2,11	£2,18	£2,13	39,22
1988	£0,98	£0,98	£0,86			£0,98	£0,86	£0,94	£2,38	£2,37	£2,10			£2,37	£2,10	£2,28	41,15
1989	£0,99	£0,99	£0,96			£0,99	£0,96	£0,98	£2,22	£2,23	£2,16			£2,22	£2,16	£2,20	44,35
1990	£0,77	£0,71	£0,46			£0,74	£0,46	£0,65	£1,59	£1,47	£0,95			£1,53	£0,95	£1,33	48,54
1991	£0,65	£0,65	£0,57			£0,65	£0,57	£0,62	£1,26	£1,27	£1,12			£1,26	£1,12	£1,22	51,39
1992	£0,71	£0,71	£0,63			£0,71	£0,63	£0,68	£1,32	£1,34	£1,18			£1,33	£1,18	£1,28	53,31
1993	£0,80	£0,76	£0,66			£0,78	£0,66	£0,74	£1,48	£1,40	£1,21			£1,44	£1,21	£1,36	54,16
1994	£1,66	£0,80	£0,72			1,23	£0,72	1,06	£2,98	£1,44	£1,30			£2,21	£1,30	£1,91	55,47
1995	£1,02	£1,04	£0,70	£0,71	£0,71	1,03	£0,71	£0,84	£1,77	£1,81	£1,23	£1,24	£1,23	£1,79	£1,23	£1,46	57,39
1996	£0,95	£0,95	£0,71	£0,71	£0,71	£0,95	£0,71	£0,80	£1,61	£1,61	£1,20	£1,21	£1,20	£1,61	£1,21	£1,37	58,78

Year	Historical price data							Converted price data using CPI									
	Cromer	Sheringham	Wells	Blakeney	Brancaster	Beach boats	Harbour boats	All boats	Cromer	Sheringham	Wells	Blakeney	Brancaster	Beach boats	Harbour boats	All boats	CPI
1997	£0,99	£0,99	£0,75	£0,74	£0,74	£0,99	£0,74	£0,84	£1,63	£1,63	£1,24	£1,22	£1,22	£1,63	£1,22	£1,39	60,62
1998	£1,17	£1,24	£0,75	£0,74		£1,20	£0,74	£0,97	£1,87	£1,97	£1,20	£1,18		£1,92	£1,19	£1,55	62,70
1999	£1,36	£1,56	£0,75	£0,74	£0,74	£1,46	£0,75	£1,03	£2,14	£2,46	£1,19	£1,17	£1,16	£2,30	£1,17	£1,62	63,66
2000	£1,66	£1,33	£0,75	£0,75	£0,75	£1,49	£0,75	£1,05	£2,53	£2,03	£1,14	£1,14	£1,14	£2,28	£1,14	£1,60	65,55
2001	£1,30	£1,27	£0,74	£0,75	£0,71	£1,28	£0,74	£0,96	£1,95	£1,90	£1,11	£1,13	£1,07	£1,93	£1,10	£1,43	66,71
2002	£1,43	£1,60	£0,75	£0,75	£0,75	£1,51	£0,75	£1,06	£2,11	£2,35	£1,10	£1,11	£1,10	£2,23	£1,11	£1,56	67,82
2003		£2,15	£0,74	£0,73	£0,66	£2,15	£0,71	£1,07		£3,08	£1,05	£1,04	£0,95				69,78
2004																	71,86
2005	£1,76	£1,73	£0,91	£0,90		£1,75	£0,91	£1,33	£2,39	£2,34	£1,24	£1,22		£2,36	£1,23	£1,80	73,89
2006																	76,25
2007																	79,52
2008																	82,69
2009																	82,25
2010																	86,05
2011	£3,14	£2,80	£1,10	£1,13		£2,97	£1,11	£2,04	£3,47	£3,09	£1,22	£1,24		£3,28	£1,23	£2,25	90,53
2012	£3,08	£3,09	£1,09	£1,10	£1,10	£3,08	£1,10	£1,89	£3,30	£3,30	£1,17	£1,17	£1,18	£3,30	£1,17	£2,02	93,43
2013	£3,16	£3,20	£1,81		£1,10	£3,18	£1,46	£2,32	£3,29	£3,32	£1,88		£1,14	£3,30	£1,51	£2,41	96,27
2014	£3,18	£2,88	£1,40	£3,22	£3,03	£3,03	£2,55	£2,74	£3,23	£2,93	£1,42	£3,27	£3,08	£3,08	£2,59	£2,78	98,55

Figure 4.1 Original price data and Consumer Price Index



NB: The consumer price index (CPI), or the retail price index (RPI), involves a bundle of commodities confined to consumer goods and services. This bundle is a fixed amount of food, housing, clothing, entertainment, etc., that is proportional to what the average household consumes. From: Lawrence H. Officer & Samuel H. Williamson, "Measures of Worth," MeasuringWorth, 2010.

5. Published papers

5.1 White, C.S. 2014. Structured Interview Tools: Insights and Issues from Assessing Wellbeing of Fishermen Adapting to Change Using Scoring and Ranking Questions. Published in SAGE Research Methods

SAGE Research Methods Cases

Structured Interview Tools: Insights and Issues from Assessing Wellbeing of Fishermen Adapting to Change Using Scoring and Ranking Questions

Contributors: Carole White

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Abstract

This case discusses the use of researcher administered structured interview tools, with ranking and scoring exercises, combined with more open-ended fluid interviews. Drawing on empirical work applying methods from wellbeing research to understanding the social impacts of change in a small-scale fishing community in the East of England, I discuss the insights that were gained from using these tools and some of the methodological issues I encountered. Lastly, I reflect on my experience and some of the ethical questions that arose when using these tools. In doing so, I explain my decision to abandon their use and to privilege a less structured interview approach.

Learning outcomes

By the end of this case students should:

- Understand the insights that can be gained using researcher administered ranking and scoring interview questions rather than only using unstructured interviews.
- Understand the need to go beyond numbers in order to understand subjective aspects of people's lives and understand the issues of analysing participants' scores in isolation from their qualitative reflections
- Have some practical insights into the importance of designing questions well and piloting them and be mindful of possible response biases
- Be aware of the need to be adaptive and responsive during data collection. Try to anticipate unexpected answers
- Reflect on ethical issues in conducting research on wellbeing and asking questions of a personal nature.

About the research project

The research focused on the small-scale crab and lobster fishery from coastal towns in North Norfolk, England. The fishery involves approximately 40 boats working seasonally along the coast and has a high cultural value and identity. The fishermen have engaged in several strategies to stay in business and deal with natural, social and economic threats over the past 20 years. The fact that they have remained in business over the years may be taken as evidence of resilience in the face of change. However, the motivation for these different livelihood strategies and how these changes have impacted on the lives of fishermen is less clear, and this is what I wanted to address in my research.

The premise of this research is that choices people make about their lives are motivated by their values, goals and pursuit of wellbeing. The approach for examining this was based on 'social wellbeing', defined by Ian Gough & Allistair McGregor in *Wellbeing in Developing Countries: From Theory to Research* as 'a state of being with others, where human needs are met, where one can act meaningfully to pursue one's goals, and where one enjoys a satisfactory quality of life'. This approach has been put forward by Sarah Coulthard in her paper: '*What does the debate around social wellbeing have to offer sustainable fisheries?*' as having the potential to highlight social impacts in fisheries undergoing change. It can also provide insights into fisher behaviour, when this is understood as the pursuit of wellbeing and a valued way of living.

The theoretical framework understands adapting to change as being dependent on:

- Material resources: what a person has;
- Relational resources: interactions a person engages in via social relationships to pursue goals;
- Subjective resources: feelings about what ones does and has

Relational and subjective resources are inherently more difficult to assess and quantify. This is what this case is concerned with; how to assess the more intangible elements of adapting to change: the

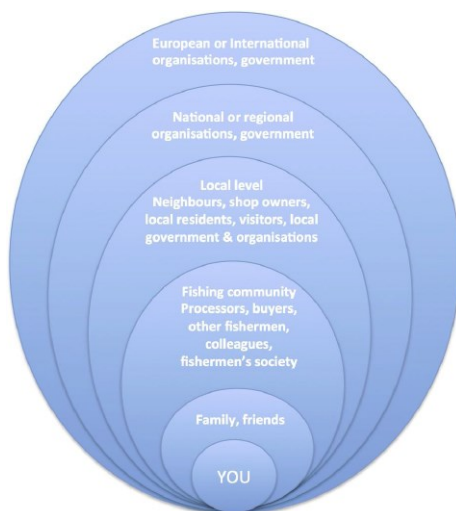
relational and the subjective dimensions of wellbeing. Specifically, this research was concerned with understanding the role of relationships in mediating what fishers do and how they adapt to change in the community and, in what ways the pursuit of wellbeing goals has shaped how fishers adapted to or coped with change.

Research practicalities

A methodology was developed to assess the types and nature of relationships fishers had and what was perceived as valuable in order for fishers to live well using semi- or unstructured interview followed by two structured interview tools from wellbeing research, which are explored in this case. The first is the Governance Relationships Assessment (GRA), concerned with relational wellbeing. The other, the Global Person Generated Index (GPGI) is aimed at assessing subjective wellbeing. In total twenty seven recorded semi-structured or unstructured interviews were conducted with fishermen between March 2013 and February 2014. The GPGI and GRA were interview administered for the first eleven of these. The next two sections provided illustrated examples of the insights I gained through using the tools and the issues I encountered which led to my decision to stop using them.

I adapted the GRA from similar research conducted in fishing communities in Northern Ireland by Easkey Britton and Sarah Coulthard in *Assessing the social wellbeing of Northern Ireland's fishing society using a three-dimensional approach*. The aim was to find out which relationships affect fishermen's actions. The question "What relationships influence your fishing decisions (day to day and longer-term)?" was read to the participant giving them sufficient time to reflect and answer before showing them the relational landscape diagram (Figure 1). This encouraged the respondent to think about a wide range of relationships and to list up to five.

Figure 1. The relational landscape diagram.



The term 'relationship' is used in a broad sense, in order to include relationships from their close circle (family and friends), to wider spheres of influence (the market, government personnel) or anyone else the interviewee thought of as having a significant influence over what they do. Once five different relationship types had been noted, I asked the participant to rank these in order of importance and to score these on a scale of 1 to 4 (with 4 being the most satisfied with). Finally, I asked the participant whether or not they would like to change any relationships in any way.

I used the Global Generated Person Index (GPGI) to measure individual subjective wellbeing by asking what is necessary in order to live well. Originally from the health sector, it was developed by Danny Ruta in 'A New Approach to the Measurement of Quality of Life: The Patient-Generated Index', and was adapted by Alistair McGregor and colleagues. It has recently been applied to research in fishing communities by Easkey Britton and Sarah Coulthard.

The researcher takes the respondent through three steps (Figure 2):

Figure 2. Global Person Generated Index Questionnaire.

Step 1: Identifying aspects of life that are important for living well here	Step 2: Scoring Satisfaction in Each Area	Step 3: Spending Points – what needs to be changed?
<p>We would like you to think of the areas of your life that are most important for you to be able to live well in this community.</p> <p>These can be things that you:</p> <ul style="list-style-type: none"> a) need to have b) need to be able to do c) need to be able to be <p>Please tell us up to five areas in order of IMPORTANCE</p>	<p>In this part we would like you to score your level of satisfaction in the areas that you mentioned in step 1.</p> <p>This score should show how you felt about this area of your life over the past MONTH. Please score each area using this scale:</p> <p>5= Excellent - Exactly as you would like to be</p> <p>4 = Good - Close to how you would like to be</p> <p>3 = OK, but not how you would like</p> <p>2 = Poor but not the worst you could imagine</p> <p>1 = Bad - The worst you could imagine</p>	<p>If you were able to change these areas of life what would you seek to change?</p> <p>We want you to 'spend' 10 points to show which areas of your life you feel are most important to change in order to improve your overall quality of life.</p> <p>Spend more points on areas you feel are most important for you to change and less on areas that you feel are not so important.</p> <p>You don't have to spend any points on each area (i.e. you can choose to spend no points on one or more areas).</p> <p>You can't spend more than 10 points in total.</p>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Step 1: List the five most important aspects of your life that you need to have a good life, "things that you need to have, need to be able to do or able to be".

Step 2: Rank these in order of importance, and then score satisfaction with each listed area from 1 to 4.

Step 3: 'Spend' up to 10 points on the area(s) you would most like to improve.

The final step can help to reveal what is perceived as being the most important in improving wellbeing through the allocation of points, in a sense by 'putting money where your mouth is'.

Insights gained

Using the two structured interview tools revealed some important themes, which may not have been come through as explicitly if less structured interviews had solely been used. The main strength of these tools relative to other measures is that the responses are 'person-generated', and provide a way of asking what matters most for the person, rather than proposing pre-determined response categories. However, these tools also have weaknesses which are discussed in the next section. Overall, the most useful part of using these tools was in encouraging respondents to reflect on their choices which generated a discussion relevant to that particular person. The main insights I gained by using structured interview tools are summarised in this section as:

1. A thinking tool: elucidating choices and linkages between them
2. Discrepancies through scores: highlighting further areas of investigation
3. Person-generated themes: getting to personal topics without directly asking

1. A thinking tool: elucidating choices and linkages between them

The most valuable part of using the structured interview tools was the discussion that was generated as a result of having to rank, score, or attribute points to the answers given. Taking the time to ask the respondent to explain their choices was crucial to being able to interpret them.

For example, the tools helped to highlight the trade-offs that fishing families make between different aspects of their lives. One fisherman, Jack, listed income, healthy fish stocks, weather, new fishermen 'young blood' into the industry, and health as most important for him to live well. He explained how fishing not only affects his own wellbeing and that of his family, but also the community as a whole. *"I need someone to help me look after the stocks so I can carry on catching more crabs, or continue to catch crabs, not necessarily catch more, then everything else is all tied in and looked after. It looks after my family and my close family. It then looks after the wellbeing of my town and my area because we continue to do what we have been doing for 2, 3, 4 hundred years."* However, when asked to spend 10 points in the GPGI exercise, he said: *"They are all important but I suppose on a personal level, the weather and new fishermen is neither here nor there so I'll have 4 for my health and 3 for income, and 3 for healthy stocks. When asking about why he had put 0 for 'new fisherman', he responded: "It affects the community and the area we live in but I could live without it."* This shows how the notion of 'spending points' and prioritising choices can expose a more individualist conception of wellbeing.

Another example of how different aspects of well-being are traded off was expressed in the interview with Matt who discussed why he chooses to sell his catch live for a lower price rather than spending extra time cooking and processing. Matt scored satisfaction with buyers the lowest out of all the respondents in the GRA and in his GPGI, said what he would most like to change is income. However, his strategy of selling his catch live for less money is motivated by the value he places on other parts of his life such as spending time with family, which he ranked the highest. His wife works part-time and they have managed to work together over the years to bring up their children and divide household tasks. He explains that this works because his wife has a part-time a job. Without this extra income into the household, he says *"we'd have to be cooking, and she'd have to dress crab to make up the money that way which, I know she wouldn't want to do."* Their household trades off maximising potential earning from fishing with other aspects of family life.

The tool was also useful in demonstrating linkages between different aspects of one's life. For example, when talking about important relationships, Kevin explained how relationships in the fishing

community affect home life and vice versa. He ranks relationships with other fishermen with the highest importance followed by family. *“You need to get on with your fellow fishermen. If you don’t get on then you’ve got a problem. You rely on each other for safety, launching, sourcing gear etc.. [...] If you’re not happy there then it will impact on your family life. It might seem silly to put it [fishermen] in front of your family but if you’re at loggerheads with someone then that will affect your family.”* He later makes the reverse link about how family life can affect fishing performance showing how intertwined family and fishing can be. *“When you are out there, safety is paramount and if you got silly things going on in your head, that’s when problems can happen.”*

The scoring and ranking element of the tools are useful in drawing out what is most important to people, or how aspects of wellbeing are linked. However, gaining these insights relies on encouraging participants to reflect on their answers at the end of the exercise.

2. Discrepancies through scores: highlighting further areas of investigation

Using the tools also helped to indicate further areas of investigation. For example, health came up the most frequently in the GPGI as the most important in order to live well and satisfaction with health was usually scored very highly. As Jim explained: *“I think health is the most important thing because without it, you’ve got nothing have you? Especially in my industry. I’ve got to be healthy enough to go to sea. At the end of the day, it’s the most important thing.”*

The fact that satisfaction with health was scored so highly was relatively surprising given the age of these fishermen (40 - 75 years old) and a recent National Health Service project, which reported high blood pressure for many of these fishermen who had advised to have regular check-ups. Interestingly, younger fishermen in their 20s tended not to place as much emphasis on health. Similarly, safety was scored highly in terms of satisfaction. This was despite several incidents having occurred in recent years with fishermen – many of whom now work on their own - being rescued after ending up overboard. Several fishermen reflected to an extent in other parts of the interview on the stress, worry and loneliness of being at sea on their own.

This apparent discrepancy between scores and other sources of data including the less structured interview exposes an interesting paradox, which may warrant further investigation. Perhaps everyday lived experience has more influence in shaping fishermen’s perceptions of health and safety? Perhaps expressing positive perceptions of health and safety is a mechanism for coping with risk? When I asked about safety and working alone, one of the fishermen simply responded *‘It’s just not something we think about’*. Another explanation for these discrepancies could be a ‘social desirability bias’ (explored in next section). Fishermen may be expressing what is perceived as the conventional attributes related to being a fisherman including being courageous and physically fit. The scoring element of the tool draws these influences out for further exploration.

3. Person-generated themes: getting to personal topics without directly asking

Using structured interview tools such as the GRA and GPPI, written down on paper in front of me, allowed me to ask questions more directly and confidently as I read these out, and followed the steps. Importantly, these questions were asked in a relatively open way *“What is important for you to live well?”*. I could then encourage further discussion by asking participants to rank, score, and then reflect on their responses. Some of the themes which came up as a result of the tools may have appeared out of context and too indiscrete to ask in an unstructured interview.

For instance, I found that these tools brought out the crucial role of relationships with other fishermen they worked with and in their home life. For instance, Kevin listed ‘trust’ in his GPPI. *“Trust. You need to trust people around you. It’s essential to how fishermen work. You need to at least have the perception of honesty. That is important. Of course fishermen won’t tell each other everything because they are in competition but, that’s not being dishonest. It’s about trust. That’s the nucleus that runs through the centre of being a fisherman. You don’t get on in this game if people can’t trust you. You soon get a reputation.”*

Another respondent, Peter who works alone, ranked having ‘an understanding wife’ as the most important for him to live well, scoring satisfaction highly saying: *“I don’t think most women would put up with what we do. If I’m not here [the shed] then I’m at sea.”* One of the younger fishermen I spoke to, and who is single and works as crew on a boat, reflected on the importance of having a ‘good relationship’, with ‘someone who respects what you do’. In the last question of the GPPI, where points can be allocated to an area of your life that you would like to change, he said he would put all 10 points towards this rather than other listed areas which included income, freedom, fishing gear and friends. He reflected on how he would try to make a relationship work if he had one, highlighting some of the challenges fishermen face in having a balanced life. It would have been difficult for me to ask questions directly about the research participant’s personal life, and particularly satisfaction with this aspect of their life in an unstructured interview without investing time in building a closer rapport first. However, I was able to discuss more personal topics because the respondents brought them up themselves, when responding to the open question of ‘What is important for you to live well?’.

Methodological issues

A number of considerations arose when using structured interview tools to assess wellbeing, which can be summarised in four points:

- 1) Careful question framing and avoiding response bias
- 2) Response bias: ‘acquiescence’ and ‘social desirability bias’
- 3) Dealing with unexpected answers
- 4) Quantification and small sample sizes
- 5) Ethical issues

1) Careful question framing

In both the GRA and GPPI, how the initial question was framed had a significant bearing over the nature of the responses. The GRA question uses the word ‘relationship’ in a very broad sense from the local and intimate circle of family to more remote circles including national and even global scales of governance. Whether or not participants really understand the word relationship in this wider sense is questionable particularly when referring to institutions or processes with which they have little or no interaction. It is possible that this question may have biased the answers and limited their range to the local sphere rather than with higher levels of governance, as also intended.

Secondly, the question asks about how relationships *influence* decisions. This led to some participants saying that no-one influences them particularly as most fishermen have a tendency to be self-reliant and would resist admitting being 'influenced' by anyone else. In many cases, after fishermen emphasised the independent nature of their work, the vital role of a friend, partner, sibling or grandchild in their work would be mentioned in passing. For example, Matt explained, "*We're fishermen, we are independent, we work on our own*". As the conversation progressed he mentioned another fisherman with whom he is good friends saying "*We always help each other out*". On a few occasions, when fishermen forgot to mention family or their partner initially, they would hastily express their importance making statements such as '*Well, of course, family comes first, doesn't it?*' which was then usually given the highest satisfaction rating and often ranked as the most important relationship type. There may be two conflicting influences at work in responding to this question. On one hand, there may be a desire to show that being a fisherman means being self-reliant and depending on no-one, and on the other the expressed role of being a husband and a father who provides for his family and values their support. Due to this issue, I rephrased the question slightly to be about which relationships affect you, *negatively or positively*, as this helped generate a wider range of responses. This shows the importance of piloting a tool or questionnaire such as this one sufficiently before conducting research. However, the tendency for such response biases is common in conducting research which rely self-reported responses and is discussed further in the next section.

2) Response bias: 'acquiescence' and 'social desirability bias'

Several fishermen expressed some discomfort with allocating scores. One said "*I'm not sure how to translate that into numbers*". This reluctance or uncertainty in how to respond may have resulted in scores being allocated arbitrarily leading to response bias. Firstly, several fishermen scored every response in their GPGI or GRA highly. This may be a demonstration of 'acquiescence', a tendency to respond identically to a batch of questions statements. Secondly, someone may not want to admit dissatisfaction with certain areas deemed to be personal and where responses may be influenced by social norms, for example in discussing satisfaction with one's family or partner, or with income. As Jim explained "*I'm pretty happy with everything so, how can I answer that without putting 5 for everything, which would be pretty boring? That's why I've gone with some fours. I can only spread these equally.*" This is known as 'social desirability bias'. Other examples of this bias could also be interpreted in the responses given regarding for health and security or relationships (as mentioned on page 11 or on page 15).

In several cases, being able to discuss scores with the participants offered insights into their rationale for allocating points and highlighted that analysing the quantitative element of the tools in isolation of any subjective reflection on the score may be misleading. For example Pete said "*Income has to be the biggest thing really. Because in theory if I have more money then I can have time off and if it's rough I haven't got to worry about it. So I'd spend points on income and weather because if there is good weather I can earn more and if I earned more I could have some time off.*" He decided to allocate 5 to the weather, 5 for income and 0 for time off as "*that would be reflected in there anyway*". Sensing that this response may not be consistent with the way in which other respondents would have allocated points, I prompted him by asking whether he would spend any points on time off since he had mentioned it was important. He then changed his allocation to 5 for weather, 4 for income and 1 for time off "*because 1 is better than nothing*". If his logic is that good weather would lead to more income, which leads to time off, then he might have allocated all 10 points to the weather. The fact that he initially (before my prompting) spent points on income and weather (which leads to income) suggests that income is what really matters most and time off is not a priority. This example shows the difficulty in interpreting scores and in trying to understand the reason behind the score without interfering and influencing the respondent's answers.

3) Dealing with and interpreting unexpected answers

The interpretation of scoring satisfaction with aspects of wellbeing, which were highly temporal, such as the weather and seasonal income, or relationships which were notional rather than actual (e.g. spiritual, with the deceased) brought further challenges.

One fisherman explained: *"The biggest thing that affects my life is the weather. [...] I need good weather. I need nice weather to go to sea but not only that but to sell the crabs. You sell a whole lot more when the sun is shining. So the weather has a massive bearing on my life"* The first issue with evaluating satisfaction with the weather is what period of time to use. If only the past month is used then the results would be greatly influenced by the time of year. Similarly, as income was dependent on good weather to be able to go to sea, satisfaction with income was also temporally dependant. Secondly, weather is an area of wellbeing over which one has no control and cannot change. This led to the question of whether respondents could allocate points to change the weather. I decided to allow respondents to 'spend points' on the weather, and then interpreted this as a factor, which could limit or enable their wellbeing and actions.

A similar issue occurred during the administration of the GRA. One of the fishermen mentioned his father who had taught him everything he knew and had passed away over 10 years ago saying *"He still influences my fishing decisions"*. Scoring this notional relationship in terms of satisfaction was not possible and I would have had to adapt and re-phrase the question in order for this to make any sense. It may have been possible to ask about the satisfaction with the help he gets out of this notional relationship but this may have been too abstract.

3) Quantification and small sample sizes

An important question following data collection was how to analyse the responses from the structured interviews in light of some of the responses biases discussed above. It makes the interpretation of individual differences and any average tendencies uncertain. Although guidance of what each score meant was given (eg. 3= good but not quite how you would like it), there are many reasons (explained in the preceding sections) why the scores attributed may not be reflective of reality. In these cases, is there any added value in analysing the quantitative element generated from structured tools? With a small sample, such as the 11 individuals in this study, creating averages for scores and areas selected seems rather meaningless especially when large variation exists in scores for similar areas. In this case, can they be used to compare between individuals or groups? My conclusion was that the scores should be used to understand each individual interview but not used to compare across individuals.

3) Ethical issues

One of the most important limitations of the GRA and GPGI tools, which resulted in my abandoning their use in favour of less structured interviews, was the discomfort some of the questions caused certain participants.

For most participants, the concept behind GPGI and GRA seemed rather abstract and the level of prompting needed by the researcher risked producing bias. One of the participants said *"That's a very difficult question. That's a funny bloody question that is" "I can't really fathom this. Can you explain it again?"* And another also expressed similar frustration with the questions. *"I can't quite grasp it. Give me some sort of example", "I'm not quite with you, how they support you or how they are involved?"*. I tried to explain the purpose of the question by explaining that what is important for a young person to live well may be very different to someone who is retired. On some occasions I gave an example by explaining some of the answers I might give which were related to me being a student.

Several became fatigued and irritated by the questions in the GRA and GPGI. Jim joked: “I’d like Norwich City to stay in the premier league, which would be very helpful” and another exclaimed “What do you want to know now? The meaning of life?” Yet another, after a painful silence, exclaimed “Well, think of something and put it down!” In most cases, after the questionnaire was finished, participants were happy to continue talking which, indicated that it was the structured element and the deeply personal and abstract nature of the questions of the interview they were uncomfortable with.

The part of the tool requiring satisfaction to be rated was the most awkward, particularly when asking about family members or their partner. In most cases, I would find myself going quickly over these, or re-framing the question by explaining that one could be satisfied or dissatisfied with a relationship for many different reasons (e.g. if someone did not spend enough time with a loved one). On other occasions, I skipped the question altogether if the person in question was within earshot or if it felt inappropriate to ask.

Conclusion

In some ways structured interview questions can be a shield behind which a researcher can ask questions which may be difficult to drop in to a more open ended interview. They allow the researcher to get straight to the core of what they are interesting in finding out rather than skirting about the topic in the hope of drawing out the information they seek. Similarly, I found that for some participants the structured element of the interview, gave them the opportunity to express themselves on topics, which they may have felt too personal to bring up with an outsider. While I was able to gain a number of insights from some participants using structured interview questions, the discomfort this caused other participants risked jeopardising my interaction with them and future participants. In addition, the issues I experienced when it came to interpreting the quantitative element of the questions made me re-consider the added value of using scoring and ranking in my research at all.

Discussion Questions & Exercises

- Discuss the strengths and weaknesses of using structured methods in interviews which involve scoring and ranking
- Put yourself in the shoes of the person you will interview. Think about how you would answer the questions in the GRA and GPGI. How would you respond? How would you feel about scoring and ranking your responses?
- Now that you have tested the tools on yourself, test the tools on a friend or someone you know well and then repeat this with someone else you know less well. How well do these tools work in practice and how does the experience differ depending on who you ask?
- Using the data you have collected, think about how you would analyse the scores. First look at each participant’s responses and think about how you would interpret these. How much do you use other personal knowledge you have in order to do this? In particular, analyse and compare the difference between the experience of collecting GRA and GPGI data with someone you know and someone you don’t.

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Getting into Fishing: Recruitment and Social Resilience in North Norfolk's 'Cromer Crab' Fishery, UK

Carole Sandrine White

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Abstract

The intergenerational continuity of fishing communities is a growing concern for the sustainability of small-scale fisheries around Europe. This is exemplified through the case of an English crab fishery where young people are being encouraged into fishing through funded training programmes with limited success. Opportunities for work have declined, most notably through a reduction in crew size to save costs. Interviews with fishermen of different ages are explored using access theory to elucidate how the social reproduction of fishing has changed. This shows how the agency of young aspiring fishermen is increasingly constrained by regulatory and financial factors. Improved social and spatial mobility among fishing families mean that recruitment into the fishery through a father-to-son pathway is increasingly uncommon. Youngsters from nonfishing families face additional financial and relational barriers. Funded courses alone cannot provide a solution. A holistic approach to rural coastal development is required to build social resilience in fishing communities across Europe faced with similar problems.

Introduction

The lack of younger generations taking up commercial fishing is a growing issue in European and other fisheries worldwide with considerable implications for the sustainability of the industry. Not only does it pose questions for the survival of individual enterprises and put at risk local ecological knowledge, skills and fishing heritage, but it also deprives the industry of future sources of innovation, adaptability and enterprise. In this article, the case of the North Norfolk 'Cromer Crab' fishery – a small-scale fishery in the East of England – is examined to illustrate how and why the recruitment of young fishermen is failing.

Commercial fishing has generally declined in the UK since the late 1980s (MMO Statistics 2014) following restructuring policies to address overcapacity (Hatcher 1997). Debates on fisheries policy have narrowly focused on managing the natural resource and repeatedly ignored social considerations in order to achieve sustainable fisheries (Symes and Phillipson 2009). Based on the deterministic premise that limiting fishing pressure will lead to improved resource productivity, it also assumes more profitable individual enterprises and better off coastal communities (NEF 2012). However, it is far from clear whether after a period of contraction, the industry will still be able to attract and recruit fishermen who could reap the benefits when stocks recover. The question of sustainability addressed here focuses on the intergenerational continuity and the social reproduction of fishing. These issues have been raised in rural agricultural and fisheries sectors (reviewed in White 2012 and in Symes and

Frangoudes 2001, respectively) and recent research has come from fisheries in Brazil, Canada and Norway (Neis *et al.* 2013; Sønvisen 2013; Trimble and Johnson 2013). This article provides one of the first empirical contributions addressing this question in the UK. It aims to broaden the debate on sustainable and resilient fisheries to include intergenerational dimensions across the rural economy.

The research context and problematic is developed before introducing the conceptual framework and methodology. An analysis of the recruitment process and pathways into fishing follows. The conclusion reflects on the implications of the findings for social reproduction and resilience building, and the actions needed to improve recruitment in fisheries particularly in the European Union.

Research context and problematic

The North Norfolk crab and lobster fishery involves 48 boats, mostly under 10 metres in length, and around 75 fishermen¹ of whom over a third work part-time (IFCA 2013). This includes small, beach-launched boats spread along the coast, worked singlehandedly on trips of two to five hours duration within three miles of the coast. Cromer beach – renowned by locals and visitors for its ‘Cromer Crabs’ – has the highest concentration of fishermen (17 boats) with a history going back to the eighteenth century. Larger harbour boats with a minimum of two men fishing up to 20 miles off the coast on 12–24 hour trips have operated from harbours such as Wells-next-the-sea (12 boats) since the 1980s (IFCA 2014, *pers comm.*). Between 2006–2013, the fishery averaged ~700 tonnes annually with a value of £2.2 million, representing 6 per cent of English landings (IFCA 2013; MMO 2014). Considered one of the most commercially and culturally important fisheries regionally, it was identified for European Fisheries funding, and the North Norfolk Fisheries Local Action Group (FLAG) was set up in 2011 (Fisheries Local Action Group (FLAG) 2011).

Inshore shellfisheries are currently unrestricted by quota, and access to this fishery has been restricted through boat licences since 1993. Nationally, the level of shellfish and in particular crab exploitation has increased by 40 per cent over the last decade as other fish stocks have declined (MMO 2014). However, this expansion has mostly been in other parts of the UK rather than in the Norfolk fishery (MMO Statistics 2014). An important difference between this crab fishery and others is that the majority of landings are for the domestic market rather than for export (IFCA 2013).

Those who continue to fish in North Norfolk today have faced numerous challenges in the past – for instance rising operation costs and the closure of processing factories – but they have remained in business by adapting their livelihood strategies. For instance, beach boats have been adapted to reduce crew costs, and fishermen have turned to processing their own catch – often with the help of family members – to increase household income. In this sense, the fishery and its participants can be considered ‘socially resilient’ – defined as ‘the ability of a community or of individuals to withstand shocks and stress without upheaval’ (Locke *et al.* 2000, p. 28). However, a significant present threat to the continuation of the fishery is the lack of new fishermen, particularly of young age, entering the sector as reflected in the FLAG’s objectives, aiming to: ‘Boost entrants – individuals and businesses – to the industry to ensure that the fishery can continue to operate in the long-term’ (Fisheries Local Action Group (FLAG) 2011). Less than 20 per cent of fishermen presently working in this fishery are under 30 years old. The risk is that, as existing fishermen retire, the activity will slowly disappear as it has in a nearby coastal town, Sheringham. Crab fishermen have reported good catches and prices in recent years; market demand has been increasing and is not always fully met in the summer months. If there are good commercial prospects in crab fishing, why are there so few new entrants? Why is recruitment failing?

Answers to these questions are complex, requiring the reconciling of sometimes conflicting perceptions of the underlying problem. One factor is quite clear: there has been a downsizing of crews in the crab fishery largely as an adaptive response to the squeeze on profit margins for small-scale producers unable to expand output to meet rising operating costs. As Tom, aged 45, from Cromer explained:

[We were] always three men in a boat. Now the majority are single-handed boats simply 'cos you can't afford' ... You can't get good reliable crew to start with and simply you haven't got to pay anyone then. Whatever you earn is your own. If you got two crew with you, then you've got to work x amount of pots to make up that money to pay them.

The problem of recruitment, alluded to in Tom's comment, may also be a reflection of changing social culture and different expectations among the young. Carl (65), in conversation with a fellow fisherman, commented:

Young people nowadays know that when push comes to shove, they've just got to go and sign on, haven't they? They aren't going to be skint are they? Years ago, you didn't get a lot of help ... Who do you know who is going to stay in the stern of the boat like you used to [when] there's water flying in all directions? Kids won't stick at it will they?

A rather different perspective was offered by Matt (62) from Cromer concerned with the increasing regulatory and financial obstacles put in the way of young people looking to enter the industry today.

Years ago you never had to have no 'qualifications'. Now, you've got to have this, that and everything else. That's making it harder for young people to get into [the industry]. Years ago, you got a job as a crewman for a few years on a boat. Then you got enough money to get your own boat and gear and start off on your own. We just learned at sea.

Tim, a young fisherman in his 20s, agreed with Matt but also expressed his frustration at barriers he faced accessing employment. His perception is that older generations are reluctant to transfer access to the fishery to younger generations.

When you think about it, why should they want young people taking over? They don't want us coming in while they're still fishing. But, yeah, when they're retired, they'll say 'Oh, I wish some young people were coming in!'

However, many older fishermen expressed their wish to see younger generations enter the fishery even if these were from outside their community. Jim, 46:

We need new blood in the fishing industry. It's a simple as that. Whether it's my family blood or someone else's does not matter. But, I'd like to think that when I'm dead and gone there's still someone doing it.

The opinions of local fishermen cited serve to indicate how recruitment may be enabled or constrained through factors relating to access, and highlights intergenerational tensions. In order to understand the problems of recruitment more fully, the article examines the processes involved in gaining access to regular employment in the small-scale fishing industry.

Conceptual framework and methodology

The conceptual framework is based on Ribot and Peluso's 'theory of access' (2003) where access is 'the ability to benefit from things' – in this case, the ability to earn a living and experience a way of life through crab fishing. This theory was applied to analyse the themes emerging inductively from interviews and grounded in existing literature. Evidence presented in the previous and later sections, indicates that access to employment in fishing is mediated very largely by four factors: (1) the legal requirements for working on board a fishing boat, what Ribot and Peluso would frame as a mechanism of access through 'authority', (2) relationships with fishermen already working in the industry, termed as 'social relations' by Ribot and Peluso, (3) the availability of employment opportunities ('labour relations') and (4) sufficient capital to buy and equip a boat ('capital') (Figure 1).

The theory of access characterises rights based mechanisms, as well as factors that mediate access through capital, social identity, labour opportunities and the market, as essential to the understanding

of access (Ribot and Peluso 2003). However, deciding to fish or not also depends on access to alternative opportunities and the influence of societal expectations as Johnsen and Vik (2013) found in their analysis of the push and pull factors explaining why fishermen leave the industry. Using the theory of access in this study of recruitment, which focuses instead on those individuals who have decided to pursue a career in fishing, allows attention to be paid to the process of becoming a fisherman and the struggles encountered in accessing the chosen occupation. It considers how agency is constrained by structural and relational mechanisms. This is important for wider debates on social resilience in fisheries, as is elaborated on in the conclusion. Furthermore, particular attention is paid to the importance of kinship ties – which in fishing as in farming occupations recruitment and access to property depends: a boat or land (Gasson 1969; Acheson 1981; Miller and Van Maanen 1982; Symes and Frangoudes 2001; Lobley and Potter 2004). On the other hand, fishermen in Kent – mostly first generation fishermen – emphasized knowledge, skill, experience, in explaining successful entry into full-time fishing, rather than social and economic factors linked to kinship (Ota and Just 2008).

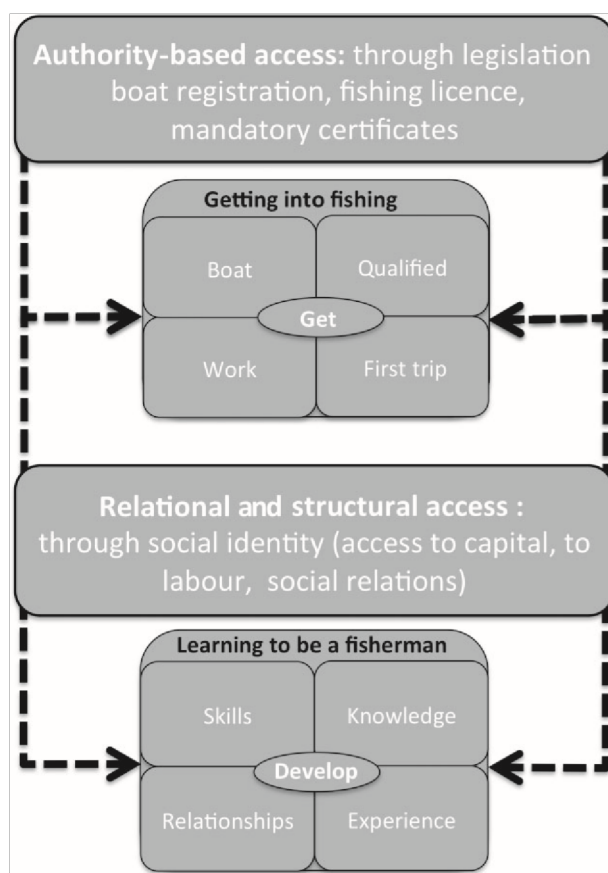


Figure 1: *Becoming a commercial fisherman is regulated by authority-based access and relational and structural access. These mechanisms mediate how an individual can ‘get into fishing’ and ‘learn to be a fisherman’*

In applying the conceptual framework (see Figure 1), this article pays particular attention to the access mechanisms involved in ‘getting into fishing’ and ‘learning to be a fisherman’. It then explores the pathways for ‘becoming a fisherman’ of those with and without kinship ties to fishing.

Methodology

A total of 27 in-depth interviews were conducted in 2013 and 2014 with active, retired and former fishermen. Snowball sampling was used to identify participants who were selected based on a range of characteristics including age, fishing location, family background in fishing, and variations in livelihood strategy. Most were with beach boat fishermen in Cromer, Sheringham, Cley, Overstrand, and three with harbour boat fishermen from Wells-next-the-Sea and Morston. Ages varied from 19–76 years old. Only five were under 30 years old, reflective of age composition in the fishery, where the average skipper age is estimated between 45–55 depending on location. Questions asked related specifically to why and how they got started in fishing, how fishermen are perceived in the community and why young people are no longer entering the sector, along with more general issues such as recent changes in fisheries management. Additional observations were collected through informal conversations on the beach or harbour side, accompanying fishermen on their boats and during shore-based activities. Interviews were also held with personnel at the Eastern Inshore Fisheries Conservation Authority (IFCA),² Wells Harbour Authority, Eastern Seafish Training Association (ESTA),³ the FLAG⁴ and the Prince's Trust.⁵ Structured interviews were conducted in the Spring of 2014 with 11 out of 36 people aged between 16 and 25 attending a three week course, 'Get into Fishing', run by the Prince's Trust and funded by the FLAG. Finally, additional data were collected on start-up costs for fishermen using online sales websites and on the number and age of fishermen undertaking mandatory certificates with the regional provider, ESTA. As anonymity was promised, pseudonyms are used to name all respondents and other details such as exact age are blurred. Recorded interviews were transcribed and coded using thematic analysis facilitated through NVivo 10.

Becoming a fisherman

Getting qualified and learning to be a fisherman

Obligatory training courses for new entrants were frequently cited as constraining the entry of young people into the industry. In order to go to sea on a commercial fishing boat, the Marine and Coastguard Agency (MCA) requires⁶ all new entrants to have completed a one-day course on basic sea survival at a cost of £140. Within three months of starting work, the completion of three further courses on health and safety is required at a combined cost of £290. A final course on safety awareness (£90) must also be undertaken within the first two years of employment. Records collected since 2008 by ESTA, show that of those who completed the final course in Norfolk, only 8 per cent are under 30, indicating a high drop-out rate within 2 years (ESTA 2015, *pers comm.*).

While skippers of larger boats may be prepared to fund such courses as an investment in good crew relations, the majority are unwilling to do so without any guarantee that the new entrants will remain in their employ. As a result the burden of payment for training will usually fall on the new entrant. At a total cost of £430 in the first three months of employment, this represents the equivalent of half the monthly starting salary for a deckhand,⁷ a substantial investment for a young person still exploring their options.

Additional optional courses are available for more experienced young fishermen, but these will not necessarily increase the chances of gaining regular employment in fishing as 'paper qualifications' tend to lack credibility among older fishermen. Much more importance is placed on experience-based learning and the acquisition of practical skills and personal attributes needed for being a successful fisherman. As Carl (65) observed:

I was taught to do things without realising ... That's like when I take my grandson to sea now. I let him steer the boat. He's good at it. He's not aware he's being taught. I'm not teaching 'cos I want to teach him – it's what he wants to do. So if I give him the basic skills and then that will be up to him, won't it? But he won't go into it cold. Like my son, I explained to him that, at night,

at sea, if something bad happens you need to be able to tie that knot in the dark whatever. I would not let him go out on his own till he could do it with his eyes shut.

Young fishermen learn the dangers of the sea from the skipper they work with, from experiencing and observing different situations and hearing the stories of other fishermen. Jack, 21, one of the few to crew on a relative's beach boat, related his experience of learning at sea.

Last year he [the skipper] started letting me take the boat ashore and hauling and baiting up. You start learning different things and picking new things up. So every season I go, I get new things known to me. But the thing is, what I need to pick up is ... all the tides. That's the hardest bit, knowing when the tides are. You got the spring tide, spring ebb, flood tide and all this. They're what you've got to know.

Learning to fish clearly does not rely on universal rules or bodies of knowledge. As the above quotation shows, knowledge of the tides – when they occur and what they mean in fishing terms – must be constantly updated and learned *in situ* in response to local conditions. Similarly, safety at sea largely relies on the habits fishermen learn to follow and which are acquired through practice, not from a textbook or in a classroom. The increased level of bureaucracy involved in working as a fisherman – of which the introduction of mandatory training courses is often cited as an example – may dissuade new entrants from becoming fishermen. Formal training requirements are seen by fishermen as 'hurdles without meaning' and as undermining the natural process of recruitment.

Getting a job: the first trip

The first important step for any would-be fisherman is to secure his first trip on a working boat. In the past, in the North Norfolk crab fishery, this would normally have been aboard a three man 'crabber', but today it is more likely to be on a beach boat designed for single-handed working or on a larger boat working out of a nearby harbour. The initial trip is an important test of the working relationship for both the skipper and new recruit. Going on one's first trip is likely to prove a memorable and potentially life-changing experience. Nick, a 50-year-old Cromer fisherman, recalled his first trip:

I started fishing when I was 16. I used to go down the beach when I was a boy and watch the boats going out. It would be first light in the summer around about four o'clock. And he [one of the fishermen] said 'you ought to come one day'; so I went to sea – and it was an easterly [wind]. I was so sick, I laid in the bottom of the boat for about two hours ... but I still kept going.

The maiden trip is likely to be not only an experience and a demanding personal examination, but also potentially a rite of passage proving either the start of a career or a one-off experience. It will test the new recruits' stamina, practical abilities, work ethic and potential to form an effective working relationship with the skipper (Symes and Frangoudes 2001). It will allow the skipper to make an initial assessment of the recruit's potential skills, personality, reliability and ability to follow orders. As Tim (49) explained:

Normally if they're [going to be] any good, you can tell it on the first day, or the first couple of days. If they like it, they'll keep going. A lot of them are just like 'Oh, it's a bit wet out here'. The boat's moving and they're a bit sick. But like, the boy Adam, he came round to see my Dad and me and said 'Can I have this job?' We took him to sea, and you can tell within 10 minutes ... As soon as we started hauling the nets, it was like he'd been doing it for years – and he'd never been out in his life.

But you can take another and think 'That's a waste of time'. We had a boy down when I was on boats after cod. It was a rough trip and he wouldn't come out on deck. The next day he came in with rubber gloves ... and he said 'I can't go home smelling of fish'. Well, we said 'You're in the wrong job then'. And he never came again.

Regular employment in fishing can be achieved in one of two ways: either as crew for a skipper or being self-employed as a skipper-owner. Working with someone else involves establishing a personal rapport and a sense of trust in order to guarantee the security of medium to long-term employment. However, long-term work opportunities in the North Norfolk crab fishery are scarce. Job vacancies are inevitably limited, especially on beach boats where many fishermen have adapted to work singlehandedly. As Ben (20) from Cromer explained:

They keep saying [that] there's no young people coming into the job anymore. But there is youngsters coming into it, 'cos I know a few of my mates who would come and do it. But ... all the boats off Cromer, they are single-handed. They don't take anyone on. If someone comes down there and says 'Can I come to sea with you?' they would say 'Well, no. I go on my own'. They're not looking for a crew. That's where it's all going to die.

Access to permanent employment is clearly limited by declining job opportunities. This lack of opportunity for all but a few means that in order to fish on a regular basis – sufficient to earn a living – the aspiring young fisherman must look to the second route into a fishing career: owning his own boat.

Getting a boat

The prospect of finally owning a boat, becoming independent and being one's own boss is one of the attractions of fishing that fuels the ambitions of most young recruits, at least on inshore vessels. Becoming a skipper involves acquiring the material assets and capital needed for going fishing – vessel, gear and licence. Estimates of the cost involved vary between about £28,000 and £42,000 for a beach boat⁸ and in the region of £150,000 to £200,000 for the larger crabbers fishing from harbours like Wells. Because of the level of financial investment involved, the transition from deck hand to skipper-owner usually occurs later in a fisherman's career, after he has amassed some savings. With limited opportunities for crewing on the beach boats, the option of becoming a skipper-owner may be the only – albeit expensive – means of accessing permanent employment. Boat and gear are commonly acquired second hand, usually through the Internet or by word of mouth, and often without the use of a loan. On the subject of loans, Tom (45) who previously worked from Wells and now fishes from Cromer commented:

The thing is once you mention you're a fisherman everything is more expensive ... It's like life insurance, once you say you're a fisherman ... that's suddenly a lot more money and that works the same with loans. But then, would you want to borrow £100,000? You're not guaranteed what you are going to catch and you still have to pay the loan back.

Having all the equipment necessary for going to sea is not enough to be able to fish commercially. The boat must also have the appropriate licence; varying in cost according to vessel length and width and engine capacity and ranging from between £3,500 for a 16 foot boat (4.88 m) with a 15 hp engine to £10,000 for a 21 foot boat (6.40 m). If a boat is sold without a licence, its acquisition can be problematic as numbers were capped by national government in 1993. Since no additional licences can be issued, the would-be skipper must obtain his entitlement from an existing licence holder. The licence specifies the size and engine capacity of the boat. In addition, the type of fishing is specified – in the case of crab – by a shellfish permit since 2004. Should a vessel owner wish to increase his fishing capacity he would need to find a way of modifying the existing licence, usually through acquiring an additional entitlement. Licence aggregation is subject to a penalty whereby the new capacity will be less than the sum of the two original boats. As Bill (50) explained:

[The fisheries department] issued licences. And then one of the boats wanted to buy a new engine and they said 'No, the licence is only valid for the horsepower you've got'. So someone, in their wisdom, said 'I've got x amount of spare capacity on my licence, so I'll sell it to you for a fee' and, all of a sudden, licences started to have a value. They were given away for free at first but then someone realised there was [money] to be made.

Having a licence has become an investment that is worth holding onto, increasing in value as they became scarcer. While this may be a sign that the policy goal to reduce fishing capacity is working, it conflicts with other goals to sustain thriving fishing communities. Upcoming government plans to remove what is considered 'latent capacity' will only accentuate this further. The price of a licence now often exceeds the cost of a boat, adding to the financial burden and threatening to price many aspiring skipper owners out of the market.

Pathways to becoming a fisherman

Ease of entry into fishing depends to a large extent on whether the would-be fisherman comes from a fishing or non-fishing background. As with a farming livelihood, the conventional path for young people to enter fishing was, either directly through succession and inheritance or indirectly through wider family based social networks (Symes and Frangoudes 2001; Johnsen 2004). The would-be fisherman would learn the requisite skills and knowledge of the local fishery, starting from an early age, on board his father's boat, eventually taking over as skipper and finally inheriting the family's fishing enterprise. For those not from fishing families it was more a matter of persistence, hanging around the beach, making oneself useful and waiting for a vacancy to come up. Failing that, skippers from nearby larger ports – Lowestoft, Great Yarmouth and King's Lynn – would from time to time need crewmen for their trawlers. While the basic pathways remain in place today, circumstances have changed and opportunities have become more limited. New pathways, through apprenticeship schemes and training programmes, are also beginning to open up.

The hereditary pathway

The customary pathway whereby sons would follow fathers into fishing is no longer as straightforward as it once appeared. Social change – most notably in the form of improved education provision and increased social and spatial mobility – have widened the job aspirations of young people and their parent's expectations. As Tony (46) put it,

I'd rather [my son] be a doctor or a solicitor or you know, a really highly paid sort of blokey so he can look after me when I get older.

There is also evidence elsewhere that fishing is no longer seen as an occupation that offers sufficient status, financial rewards or job security as in former times (Williams 2008; Trimble and Johnson 2013; Power *et al.* 2014). As in other rural places, young people tend to leave as young adults to look for opportunities elsewhere (Glendinning *et al.* 2003; Bjarnason and Thorlindsson 2006).

Socialisation into fishing by family was the common experience of many existing fishermen in North Norfolk, and it occurred at an early age. David (45), for example, recalled that he had gone to sea 'in his father's arms'. The majority of those now in their 40s or older started fishing at the age of 15 or 16; Bill (48) explained:

I started straight from school. I never had [another] job. My father gave me jobs. He would say 'what are you doing at school today, boy?' So I said PE (Physical Education). 'You're not going to that bloody thing; you can come and bait some lines for me!' So I used to bait long lines ... I'd always be doing things for him. I was under his shadow for a long time.

Today, there is no longer overt pressure from within the family to persuade sons to follow their fathers onto the family boat (though in private many would probably be proud to see them do so). Indeed, few of those interviewed were keen to encourage their sons to go fishing. Fishermen's daughters have never been expected nor encouraged to work on fishing boats. Asked whether, if he had sons, he would encourage him to take up fishing, Will (47) who has several daughters replied:

I don't know. A lot of fishermen don't. They don't encourage them nowadays. Years ago they were more or less made to go ... but now, like Jim's son and Dave's son [they] don't go. And Tony, I don't know if his son will go. He was the one that for a while back looked like he was.

With so many sons now pursuing other options, the future sustainability of the beach boat crab fishery in Cromer looks uncertain. David, a 75-year-old retired fisherman from Cromer, when asked what he thought would happen in the future was pessimistic in his outlook: 'No, I don't think there'll be many more at Cromer to be honest, because the fisherman who has got sons – they're not going to sea now'. He didn't expect their places to be taken by men from non-fishing families. In this last respect,

David seems to be unaware of, or unwilling to accept, the transformational change already occurring in the North Norfolk crab fishery – namely that the widely held view that social reproduction in small-scale fisheries relies heavily on the processes of succession and inheritance occurring within a largely closed network of fishing families is beginning to lose its relevance. Those aspiring to become fishermen may increasingly come from outside the fishing community, as has been observed in other fisheries and rural areas (Ota and Just 2008; de Lima and Wright 2009).

The non-hereditary pathway

While fishing is often understood to be passed from father to son, of the 15 skippers fishing from Cromer beach in 2014, only a third have a family history of fishing stretching back more than two generations. Six are first generation fishermen and four are second generation. Moreover, of the five young fishermen interviewed none had succeeded their fathers, though two had more distant family connections with the industry. This challenges the assumption that fishing must necessarily be an inherited way of life. For an increasing number of would-be fishermen, therefore, the more difficult, non-hereditary pathway provides the only means of entry to the industry. The problems they face are considerable, not simply in terms of the financial costs involved in acquiring and fitting out the boat. Without kinship ties in the fishing community, they may find it more difficult to find a skipper willing to ‘teach them the ropes’. As a participant on the ‘Get into Fishing’ programme explained:

The fact is that ... if you don't come from a fishing background you can't say 'Oh, my dad's a fisherman [or] my Grandad [was] a fisherman' no one will give you respect.

Expressing some form of social connection or identification with the fishing community – through family or friends – is an important way into the job.

Climbing the ladder. For those attempting to make a career in fishing there are several options – none of them easy – as the life histories of those who have entered a career in fishing following the non-hereditary pathway over the past 30 or 40 years reveal. Building up from a deckhand to a skipper-owner is the most common one.

A Sheringham skipper, now retired and with no family history of fishing, recounted his own experience of progressing to the status of skipper-owner:

I was never hardly at school. I was always on the beach, alright. When I left school I went and done of bit of other work, and [then] the opportunity arose that I could go to sea in them days there was either two brothers and a father in the boat or what we called a paid hand. And [jobs] were very hard [to find] because obviously ... unless one died you wouldn't get in the boat. [Then] one of the old boys was going to finish and I bought his crab pot gear and I went as a full-time fisherman. And, of course, it just grew from there ... But before that, I was a paid hand.

Still today, one of the strategies of fishermen is to buy their own gear as they earn. Tim

(20) had been working as a deckhand on a Wells boat for a few seasons and was saving up. He had invested £2,500 in purchasing crab pots and was planning to save up for more. Having his own gear meant that he could start earning extra money on top of his pay as a deckhand, as anything caught with his pots would be sold in his name. At the same time, buying his own gear shows commitment in his future and the plan one day to have his own boat or buy his skipper's boat. He was intent on buying all he needed rather than taking out loans which was considered a risky strategy:

People that buy boats nowadays, they take out big loans to get them. Obviously they've got to work hard to pay off those loans. I don't want to be doing it with that over my head, because obviously if I'm new to the job [of being skipper-owner] and I don't go and catch as much as the others ... then I'm going to have bailiffs and God knows what after me. Hopefully, if [my boss] does say 'Oh, you can take my boat' he might let me pay for it as I earn. So when I save up, then [I can] pay him off or something like that.

Working part-time. Earnings from fishing are notoriously unreliable: income varies from year to year according to season which lasts on average from March to October with months without revenue. With a family to support and a mortgage to be repaid, some fishermen may choose to fish part-time, and combine jobs. Examples include working away for a few weeks offshore for wind energy companies or working part of the day in construction or for the post office. Going to sea is a means of increasing earnings and building up savings necessary to eventually work full-time fishing. This strategy tends to be more common among relatively older recruits with some capital saved up but with dependents to support. As Ota and Just (2005) also noted in Kent, the extent to which this strategy of part-time fishing leads to a full-time transition into fishing is questionable.

Boat hopping. In order to broaden their experience young fishermen may opt to work on different boats whether from harbours or from the beach. Opportunities for employment are generally greater in the larger harbours. As Tim from Wells Harbour (48) commented:

The boats at Wells require a lot more crews than the beach boats. They come and go. I always refer to them like footballers in a football team. They just jump from boat to boat, the younger ones ... And, eventually they are on the top boats that everybody wants to be on.

Fishing from Wells is very different to fishing from the beach at Cromer – physically more demanding, ‘a young man’s game’, but with the chance of being able to afford to buy one of the larger crabbers at over £100,000 much more remote. For entrants from non-fishing backgrounds, therefore, one route to skipper-owner status possibly lies in learning to fish from a harbour such as Wells. Later in their career with years of experience and accumulated savings in the bank, they may move into the beach fishery with a boat of their own, continuing in a smaller scale of fishing for as long as they have the physical strength and the will to do so. However, the insecurity of working as crew and the length of time necessary to become a skipper-owner may lead to discouragement particularly as fishermen start families. As Johnsen and Vik (2013) also found, regular work hours and time with family were common reasons in decisions for leaving fishing.

Assisted entry: unlocking the door?

In Section *Getting qualified and learning to be a fisherman*, reference was made to the financial hurdles immediately placed in the path of the would-be entrant in relation to mandatory certification prior to and during the first year of employment in fishing. In some instances funding for training and gaining experience with fishermen may be available through volunteering for service in the Royal National Lifeboat Institute (RNLI). Recently, national concern over high levels of long-term youth unemployment in the economy at large has prompted formal attempts to improve basic skill levels and provide apprenticeship schemes that can lead into permanent employment. In the fisheries sector, government-led apprenticeship schemes have focused on fish processing or aquaculture rather than the catching sector. In 2013 and 2014, the Prince’s Trust ran a programme in North Norfolk called, ‘Get into Fishing’, co-funded with the Fisheries Local Action Group (FLAG) to address this gap. The latter offers three-week courses to unemployed youth on mandatory training, food hygiene, engine maintenance and boat handling with rather less than a third of the time of practical experience on board a boat. Thus, despite the best of intentions, the impact of such schemes on the recruitment of fishermen is slight, principally because they can do little to improve access to employment on a boat locally.

The frustration felt by one of those attending the ‘Get into Fishing’ scheme was clear.

[It] did help me get qualified, you know; but that’s the problem because they give everyone qualifications to go and work on a boat but none of them ... have got work on a boat. So the Prince’s Trust has wasted that money training them people ...

Just as clear is the scepticism towards apprenticeships felt by those already in the industry. Jim (49) a beach boat skipper summed up the situation quite neatly:

This apprenticeship idea is a nice idea and you can teach them how not to sink or how to tie a knot, but you can't teach them [to fish]. The only way they would learn is to actually come to sea. We used to have the double-ended crab boats which were bigger than the ones we use now. You can do it with two of you but [today] you have your 'slave hauler' [that] does the work of one man and everything is positioned and set up to work one-handed. When Jack [my son] does come to sea with me I find him things to do, but it's difficult to keep him interested for the whole trip.

Funded training programmes cannot guarantee entry into employment. They may be useful in providing a young person with no previous background in fishing with the opportunity to familiarise themselves with some aspects of the occupation and to acquire basic entry level qualifications. Ultimately, strong determination is needed to succeed in what is now principally a vocational career choice. To a limited degree, they offer participants certain advantages, to the extent that a potential employer has the assurance that they have the minimum legal qualifications for working at sea. The final problem, however, remains access to permanent employment, that is the lack of jobs within the local industry itself and the reluctance of local skippers to provide work experience in a fishery that is increasingly designed to operate with reduced crew sizes.

Conclusion

What can this study of the North Norfolk crab fishery tell us about recruitment, social reproduction and the future resilience of small-scale fisheries more generally? Although the details will no doubt vary from fishery to fishery, anecdotal evidence and other published work would suggest that similar issues are to be found elsewhere in European coastal fisheries (Williams 2008; Britton 2012; Sønvisen *et al.* 2011). Hitherto, the resilience literature on fishing communities has focused on livelihood adaptation strategies at the household level and on the capacity for collective action. It has tended to ignore the crucial individual decision-making involved in career choice and, more especially, access into working as and becoming a fisherman – arguably the single most important process in ensuring social reproduction and maintaining the resilience of small-scale fishing. This article has used the theory of access to highlight how individual agency is constrained or enabled by structural mechanisms. In doing so, it includes a consideration of agency in social resilience as called for by Coulthard (2012) and Davidson (2013). In particular, this study highlights intergenerational issues of access, which impact on the social resilience of the fishery.

In analysing the recruitment of young people to the North Norfolk crab fishery, this article has focused on concerns over access to the fishery at three distinct stages of becoming a fisherman: 'qualification', involving a significant but not insuperable financial cost; 'first time entry' into fishing employment, made more difficult by changes to fishing practice that imply diminishing prospects for job opportunities; and, after gaining sufficient practical experience, the 'acquisition of one's own boat', that marks the culmination of becoming an independent fisherman. Funded programmes for training have attempted to facilitate recruitment at the first stage. However, the major pinchpoints in the recruitment process remain: entry into fishing employment and boat acquisition. At later stages, mechanisms of access mediate how new fishermen can make a living including accessing markets, a topic for future work which is not discussed here.

Access is becoming more, rather than less, restricted through a lack of initial job opportunities and the rising costs of owning one's own boat. Making a living from small-scale fishing has become increasingly difficult. As Johnsen and Vik (2013) found, many fishermen leave the industry due to financial reasons and are attracted to jobs in offshore sectors, which offer greater income security and regular hours. There are parallels between fishing and farming which suggest a wider crisis of youth employment in rural areas (Bjarnason and Thorlindsson 2006) and a disinterest among young people

in rural jobs. White (2012) highlights the government's neglect of small-scale rural sectors and infrastructure, the deskilling of rural youth, and the problems the rural young face in gaining access to livelihood assets, controlled by intergenerational transfer.

While the present generation of North Norfolk crab fishermen recognises the extent and possible consequences of recruitment failure, many remain wedded to the notion of fishing as a family business – even among those from non-family backgrounds and where their own sons are opting out of fishing as a career. In the past, it was assumed that access to employment in fishing was mediated through relational mechanisms implicit in networks of fisher households, fishing crews and fishing communities. Weaknesses in this assumption are increasingly being exposed as they already have in other fisheries (Miller and Van Maanen 1982; Ota and Just 2008). A key function of the fishery's social system: to ensure social reproduction of fishing enterprises (Symes *et al.* 2015), is being progressively undermined through a combination of social change and regulatory intervention. The implications are that in future generations more potential recruits may come from non-fishing backgrounds. In an increasingly mobile world, the potential for new recruits to come from communities further afield with fishing traditions is real and has been observed historically (Miller and Van Maanen 1982; Symes and Frangoudes 2001). Migrants are likely to face a number of structural, financial and attitudinal obstacles to accessing employment in rural industries, however they may also be more determined (de Lima and Wright 2009). Unless conditions of access for local recruits are improved, the longterm future of beach-based crab fishing will remain bleak with the likelihood that fishing entitlements will eventually be sold out of the community.

There is clearly a need for more detailed understanding of the evolving circumstances surrounding recruitment, how policy changes have impacted on normative processes of social reproduction and, in response to such developments, how policymakers should respond. So far, the scope for policy intervention is strictly limited and confined largely to financial assistance. At the EU level, this is recognised principally in the new European Maritime and Fisheries Fund (EMFF),⁹ from 2014– 2020. Financial provisions are provided by Article 29 for apprenticeships while Article 31 endorses start-up support for young fishermen with at least five years employment in the industry. However, the recruitment problems, such as those facing the North Norfolk crab fishery, cannot wholly be solved through simple technical fixes. Furthermore, sectoral approaches alone are likely to be too narrow. As Johnsen and Vik (2013) concluded the issues around recruitment in fishing are also connected to challenges in the wider coastal rural economy. Power (2012) suggests that policies should support occupational plurality and seasonal employment.

Action is required on several levels. One is direct legislative provision by the EU and the Member States mentioned above. The second involves the implementation of measures through well-designed local initiatives to improve recruitment. These may be best accomplished within a framework of broader initiatives intended to secure local sustainability and resilience. Two particular forms can be cited here: communitybased management schemes where participants' fishing entitlements may be pooled and some part of the aggregate entitlement set aside to assist the access of new entrants; and, initiatives building on those such as the FLAG which will in the future be required to develop integrated multisectoral strategies for local fisheries related development (see articles by van de Walle *et al.* 2015 and Phillipson and Symes 2015). A recognition that individuals may come from a larger geographical area may mean broadening the scope and support of any future initiatives aimed at encouraging long-term recruitment in the industry. Attention must be paid to how access is limited by boats in different fisheries – to their demographic component and the particular nature of recruitment. For instance, more opportunities for young people may exist on larger boats but may involve shorter careers. On the other hand, access for young people into the beach fishery has been limited by the move towards

one-man operations that continue to fish into retirement age. Any policy intervention must be careful not to only incentivise recruitment onto larger boats, but to also address the more difficult recruitment issues of smaller boats. In Norway for example, a youth quota has been implemented with some encouraging signs (Power 2012). This could be designed to respond to the particular demographic context of different fisheries.

The article has raised questions about recruitment into small-scale fishing. If maintaining small-scale fisheries is a policy objective, then ensuring recruitment is crucial to building future resilience. To a degree, resolving the underlying issues will also require a conscious effort on the part of those presently engaged in the industry to create space for the incoming generation. Any interventions aimed at addressing the issues of recruitment at a local level must therefore include current fishermen from the outset. Finally, addressing the issue of rural youth employment will require a co-ordinated holistic approach to rural development approach, investing in infrastructure more broadly and valuing rural livelihoods.

Notes

- ¹ All fishers currently participating in the fishery are male. The term fishermen is therefore used. This only includes data from harbours and beaches in the district of North Norfolk.
- ² The Inshore Fisheries and Conservation Authority has devolved powers from national government for the management and conservation of the marine environment and for enforcement of law in the inshore area.
- ³ Eastern Sea Fisheries Training is a training provider for the seafood industry in the East of England accredited by the public industry authority, Seafish.
- ⁴ The North Norfolk Fisheries Local Action Group (FLAG) is a partnership between fisheries actors and other local private and public stakeholders to allocate funds from Axis 4 of the European Fisheries Fund.
- ⁵ A UK charity which supports 13–30-year-olds who are unemployed and those struggling at school and at risk of exclusion.
- ⁶ Legal requirement under The Fishing Vessels (Safety Training) Regulations 1989 amended in 2004 by Statutory Instrument No. 2169.
- ⁷ The National Careers Service suggested that the starting salary for a deckhand is £10,000+ per year. Crew on board Wells vessels can expect £100 per trip and crew on beach boats around £50. Usually no income is received when the boat does not go to sea. <https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/fishingvesseldeckhand.aspx> Accessed on 12/06/2014.
- ⁸ Beach boat including engine = £9,500–15,000; fishing gear (pots, pot anchors and slave pot hauler) = £10,000–12,000; shore based equipment (tractor, trailer) = £4,500–6,000 and a licence = £3,500–10,000. Source: interviews and www.findafishingboat.com
- ⁹ Regulation No. 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund.

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