Chapter 2. Co-constructing cultural ecosystem services and wellbeing through a place-based approach

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Abstract

Reductive practices in fisheries management have tended to focus on ecological and economic dimensions that have rendered the social and cultural importance of fishing largely invisible, at least in the context of governance and policy making. This chapter builds on five years' research in the English Channel and Southern North Sea in which the authors adopted a sense of place perspective as a framework for understanding the social and cultural value of small-scale fisheries. Through a number of case studies, the chapter describes how small-scale fisheries result in a series of 'transformations' as the marine environment is translated into cultural ecosystem services in coastal settings giving rise to socio-cultural value. This perspective is further developed by considering the value of the social wellbeing 'lens' to broaden the sense of place / cultural ecosystem services framework. In pursuing 'values' through sense of place, cultural ecosystem services and social wellbeing we discuss how the dualistic treatment of nature and society is problematic. We conclude that a relational co-constructionist approach, although challenging, offers a way of making visible an array of social and cultural values that emerge from the activity of small-scale fisheries.

Key words: Cultural ecosystem services; Wellbeing; Co-construction; Sense of place; Small-scale fisheries.

2.1 Introduction

Existing global fisheries policy and management has largely focused on the biological and economic dimensions of fisheries management in an effort to stabilize fish stocks and protect declining marine ecosystems (Urquhart et al. 2014). As a result, fisheries governance mechanisms have often resulted in coastal communities being largely invisible, or at best an after thought, in policy development (St Martin and Hall-Arber 2008). However, there are increasing calls to address this policy gap in order to ensure that the impacts of policy on communities are accounted for in the decision-making process (Symes & Phillipson 2009; Urquhart et al. 2011). This issue is certainly relevant in Europe, with the reformed Common Fisheries Policy in 2014 recognizing the importance of including explicit social objectives and using "transparent and objective criteria including those of an environmental, social and economic nature" (Article 17, Regulation 1380/2013 of the EU Common Fisheries Policy). However, identifying and implementing these 'social' criteria will arguably involve the development of new approaches that make visible the overlooked social dimensions of fisheries.

In this regard, the concept of 'wellbeing' has gained traction over recent years as an overarching concept and approach that could contribute to the design of integrated governance arrangements for fisheries which explicitly include the social dimension (Coulthard et al. 2011; Coulthard 2012). While the development of wellbeing approaches to fisheries management are of relatively recent origin (notwithstanding the long tradition in sustainable livelihoods research in small-scale fisheries (SSF) that is consistent with elements of a wellbeing approach), wellbeing is put forward as an integrating 'lens' that can help recognise the importance of SSF to economies, societies and cultures (Trimble and Johnson 2013; Britton and Coulthard 2013; Coulthard et al. 2011; Weeratunge et al. 2014). In response to this, scholars have applied what they call a 'social wellbeing' approach, drawing on the three-dimensional conceptual framework developed by the ESRC Research Group 'Wellbeing in Developing Countries (WeD)' at the University of Bath, which integrates subjective, material and relational dimensions in an effort to combine objective and subjective conceptions of wellbeing (White 2010; Coulthard et al. 2011; Weeratunge et al. 2014).

In this chapter we recognize the value of the social wellbeing approach in addressing the paucity of attention on 'social' issues, but argue that wellbeing is inherently linked to the 'ecosystem services', including 'cultural ecosystem services', that people receive from their environment. We suggest that the concept of 'sense of place' may help to better understand how people experience wellbeing in the situated contexts of the environments (and cultures) in which they live. In aligning sense of place, (cultural) ecosystem services and social wellbeing the intimate connections between ecology and society can help to reveal the multiple values of SSF. Clearly attempting to integrate the concepts of social wellbeing, sense of place and cultural ecosystem services is an ambitious aim, not least in navigating the ontological and semantic differences between the academic disciplines in which the concepts have evolved. Here the importance of thinking about socio-nature networks becomes evident and invites consideration of a co-constructionist perspective to understand relations between society and nature. It offers a heuristic device to help make visible relational associations between a wide diversity of human and non-human elements that might potentially have a bearing on social, economic and environmental sustainability.

The aim of this chapter is to bring together the authors' work on cultural ecosystem services and sense of place in the context of SSF (Urquhart and Acott 2014; Acott and Urquhart 2014) with

the social wellbeing perspective (Weeratunge et al. 2014; Coulthard 2012; Coulthard et al. 2011). Drawing on empirical research conducted as part of two European projects (Urquhart et al. 2014; Acott and Urquhart 2012) that sought to understand the social and cultural values of inshore fishing in coastal towns along the English Channel and Southern North Sea, we advance a perspective to help understand the numerous social and cultural values that emerge when the activity of SSF connects marine and terrestrial environments. In order to achieve this, we first provide an overview of ecosystem services and the problematic nature of cultural ecosystem services. This is followed by a description of sense of place to understand cultural ecosystem services in the context of SSF, drawing on examples from the two European projects. The social wellbeing perspective is then described and the chapter concludes by making the argument for a co-constructed perspective as a suitable approach to frame the complex entanglements between marine and terrestrial environments.

2.2 Ecosystem Services

An Ecosystem-based Approach (EA) to the management of natural resources is becoming an increasingly popular management framework as policy makers grapple with human impact across complex ecological systems (Carpentera et al. 2009). It takes an integrated approach to natural resource management considering the relationship between natural and social systems. In other words, it is a way of trying to bridge the gap between ecology and economics (Chan et al. 2012) and to attempt to relate the wellbeing of society to the environment (Mace and Bateman 2011). Its roots are in early work by de Groot (1987), who argued that environmental functions (natural goods and services) are as important as man-made goods and services to human welfare. Alongside an ecosystem-based approach, the concept of ecosystem services explicitly considers understanding and valuing the benefits that humans receive from ecosystems that contribute to well-being (CBD 2004) in order to improve the assessment of those services and inform decision-making (Haines-Young and Potschin 2010). The 2005 Millennium Ecosystem Assessment (MEA) identifies provisioning services (such as food, water, timber); regulating services (such as climate control, waste, water quality); supporting services (such as soil formation, photosynthesis, nutrient cycling); and cultural services (such as recreational, spiritual and aesthetic benefits) (MEA 2005).

Despite the creation of an overarching framework to understand ecosystem assessment, the MEA caused Norgaard (2008) to reflect that it also demonstrated the problems of trying to combine fragmented disciplinary knowledge to understand complex systems. This can be illustrated by considering how to value the four categories of ecosystem services defined by the MEA. In terms of wellbeing, the first three services (provisioning, regulating, supporting) relate to our physical needs, such as food, shelter and energy. Assessing and measuring these services has typically been dominated by economic valuation techniques that attempt to put an economic value on the goods and services that ecosystems provide society. These approaches generally adopt conventional techniques from environmental economics, such as revealed or stated preference and cost-based methods (De Young et al. 2008). The rationale is that policymakers and natural resource managers must often make difficult decisions involving trade-offs when allocating resources, and market failures occur when markets do not fully reflect the social costs or benefits of an environmental good. However, the MEA recognised that, alongside providing for our physical needs, the natural environment provides us with diverse non-material wellbeing benefits such as cultural diversity, spiritual and religious values, knowledge systems, educational values, inspiration, aesthetic values,

social relations, identity, cultural heritage and recreation which they term 'cultural ecosystem services' (MEA 2005). Thus, cultural ecosystem services reflect the intimate interrelationships that people and societies have with the world around them and assessing the value of these services in a policy-relevant framework is problematic as they often defy extant scientific methods and arithmetic outcomes. Currently there is no agreed robust framework for valuing the cultural services that people receive from ecosystems (Chan et al. 2012). However, there is recognition of, as the final report of the Sarkozy Commission (Stiglitz et al. 2009) suggests, a need "to shift the emphasis from measuring economic production to measuring people's wellbeing" (in McGregor and Sumner 2010, pg. 104).

This concern about an overemphasis on economics for ecosystem service valuation is especially prevalent in the literature about CES (Church et al. 2011; Chan et al. 2012). Difficulties with identifying ways to understand the cultural values of ecosystem services have been recognized (K. M. Chan et al. 2012; Plieninger et al. 2013; Satz et al. 2013) and conceptualising the relationships between nature and culture is seen as particularly problematic (Pröpper and Haupts 2014; Fischer and Eastwood 2016; Rieprich and Schnegg 2015; Leyshon 2014). In order to address this, in our own work we have applied an integrative approach to identify the cultural values of ecosystems using methodological and conceptual sense of place approaches in the context of SSF, summarised in the following section (Urquhart and Acott 2014; Acott and Urquhart 2014).

2.3 Sense of Place, Cultural Ecosystem Services and SSF

In the MEA, sense of place is identified as a discrete type of cultural ecosystem service, however, through case study work in fishing towns along the English Channel, we set out to explore its effectiveness as an underpinning concept for conceptualizing cultural ecosystem services more broadly. We started from the premise that it is important to consider the social and cultural meanings that people (individuals, groups and society) attribute to places or environments, alongside understanding how the physical environment (and ecosystems) shapes and influences those meanings. In essence, sense of place is about understanding the complex relationships that people form with the places around them. It is about how places make people feel, the meanings they associate with places and how those places influence behaviour. As an interdisciplinary concept rooted in a range of academic disciplines such as humanistic geography, sociology, environmental psychology and architecture, sense of place often takes a phenomenological approach focusing on everyday lived experiences of individuals (Seamon 2000) and explores the meanings and perceptions that individuals associate with a place or particular setting (Tuan 1974). It is often conceptualized as involving the three concepts of place attachment, place identity and place dependence, which can be applied to individuals (e.g. personal identity) or groups (e.g. community identity).

There is an extensive literature on how places are socially constructed, the role of place in identity and how people become attached to place (Altman and Low 1992; Relph 1976; Creswell 2004; Tuan 1977; Proshansky et al. 1983; Holloway and Hubbard 2001; Massey and Jess 1995). Clearly how people, both as individuals and as collective groups, relate to and associate with a place will differ and will be based upon memory, experiences, beliefs and perceptions associated with particular places (Manzo 2005). Cultural and social factors will influence how an individual feels about a place or particular activity within that place. As feelings and meanings attributed to

a place change over time, sense of place will also evolve in response to, for instance, changing political, economic and environmental circumstances. Sense of place is a dynamic process in a constant state of becoming, formed as a result of relations between individuals, society and their environments.

Jorgensen and Stedman (2006) propose a multidimensional concept of sense of place comprising cognitive, affective and conative dimensions to human-environment relationships. By considering the model of Jorgensen and Stedman (2001) places can be seen as a particular assemblage of landscapes, biota and geophysical attributes that mediate or give rise to the meanings that people associate with them. So, alongside the perceptual meanings that people associate with places, the place itself can also influence and shape those perceptions. Therefore, sense of place cannot be considered as a purely social construct, but is co-produced and as Stedman (2003) argues, "the local environment sets bounds and gives form to these constructions" (p. 671).

Thus, with its recognition that human relationships with ecosystems are reciprocal and co-constructed through both the socially constructed meanings and values that people attribute to ecosystems (and the services they provide) and mediated by the particular attributes of different environmental settings, sense of place potentially provides a means for understanding cultural ecosystem services and wellbeing. It further allows an assessment to be made of the role of the physical environment (or ecosystem) in shaping those attachments either directly, or mediated through particular activities (such as marine fishing).

In order to demonstrate the utility of thinking about SSF in the context of sense of place and cultural ecosystem services (Urquhart and Acott 2014; Acott and Urquhart 2014) we draw on work undertaken as part of two INTERREG IVA co-funded projects: CHARM III (Channel Integrated Approach for Marine Resource Management) and GIFS (Geography of Inshore Fishing and Sustainability). In both projects case examples of marine fishing along the English Channel and Southern North Sea were used to explore how sense of place reveals some of the tapestry of social and cultural dimensions that emerge as a result of fishing activity. Although it is not our intention here to present a detailed account of the methodological approach or comprehensive results from these two projects, our discussion draws on the findings from 112 semi-structured interviews with stakeholders in fishing towns in southern England and northern France (CHARM III) and 1,702 questionnaire surveys in fishing communities in England, France, the Netherlands and Belgium (GIFS). In both instances the aim was to explore the contribution of fishing in defining a sense of place. A further goal was to map the findings onto a cultural ecosystem services framework in order to assess the utility of such an approach for understanding the cultural ecosystem services arising from the act of inshore fishing. The framework was built around sense of place and cultural ecosystem services to help express the relationship between marine and terrestrial environments. This relationship is illustrated in Figure 1 and indicates how marine organisms get drawn into a range of terrestrial impacts but also recognises human impact on the ocean as a feedback loop.

INSERT FIGURE 2.1 HERE

Fisheries in the study area are an interesting example as unlike, say, agriculture or forestry, there is little direct embodied encounter with the undersea world. Interactions start with fishers engaging in the act of fishing. Through going out to sea, catching fish, landing the fish, and subsequent distribution, selling, preparing and eating, a myriad of ecosystem services (including cultural ecosystem services) are realised. The process of catching fish for food sets in motion

multiple transformations as fish (nature) are incorporated into society resulting in a range of ecosystem benefits or disbenefits. The sense of place approach allowed us to explore how marine ecosystems provide both material and non-material benefits to coastal communities through the activity of marine fishing in a way that is difficult using economic and biological perspectives alone.

The qualitative approach adopted in the CHARM III project gave a perspective on the experiences of those living and working in fishing communities. We found that for many involved in fishing, fishing is a 'way of life' providing an iconic marker of individual, community identity and social cohesion. But, in line with a co-constructionist approach, this sense of place was also shaped by the materiality of fishing places and fishing activity. Fishing contributes to a particular place character through its material presence (both contemporary and historic) in the form of objects such as boats, fishing gear, buildings, street decoration etc. In this sense, fishing places can be understood as the locus for the formation of group identity and shared cultural meaning (Urquhart & Acott 2014). The material environment of fishing places / fisheries ecosystems and the subjective meanings and perceptions of people are mediated through fishing activity.

Table 2.1 provides an overview of how sense of place helped reveal a range of cultural ecosystem services emerging from SSF activity. Bearing this overview in mind, the following paragraphs draw out specific examples of how culture is intimately bound up with nature through the practice of marine fishing. The examples also illustrate how cultural transformations associated with SSF do not stop with the production of food. While the activity of marine fishing is driven by food production and the ability to generate an income, the cultural implications of the activity extend deeply into immaterial expressions of identity, heritage and social organisation as well as helping to shape the material environment. One fisherman from Mevagissey explained about his genealogical attachments to fishing:

> "I've been fishing ever since I was 15 years old, I've never had a job interview. My dad was a fisherman, his dad was a fisherman and I think his dad was a fisherman" (Greg[1], fisherman, Mevagissey)

Table 2.1 The cultural ecosystem services of small-scale fisheries (Urquhart et al. 2014)

***Cultural identity*:** Fishing shapes the identity of those who live in coastal places and increases over time. It is both perceptual and linked to the attachments that people form with place, but is also influenced by place character in terms of the physical environment and man-made objects (e.g. buildings, fishing gear and boats, artworks, signs etc.) and the fishing activity associated with it.
Place character and aesthetic values: Fishing places have a particular aesthetic that is shaped by the physical environment and landscape alongside the material culture associated with fishing.
Individual and group attachment to place: Fishing facilitates and strengthens attachment to place through genealogical ties, longstanding association with the place and the co-existence of a place of work and residence, along with the fishing underpinning the social fabric.
Place meaning: The meanings attached to places may differ for those associated with fishing and those not, with fishers relating to the place as a

[1] Names have been anonymised throughout.

working environment and, often, based on genealogical place attachment. For those not associated with fishing those meanings may focus on the aesthetics of the place, based on both the physical landscape and a (sometimes romanticized) perception of the fishing industry.
Cultural heritage and memory*:* As an activity that has often taken place for generations fishing is deep-rooted in many coastal towns and villages. It is represented through the built cultural heritage in the form of the remains of old buildings or equipment, some of which are reused for other purposes. Fishing heritage is also about the non-tangible memories of those who have lived there and these are passed on through oral histories, preserved traditions and representations in museums.
Inspiration: The activity of fishing and the particular nature of coastal environments provides inspiration and wellbeing benefits for those living there, enhancing quality of life. This is also reflected in the work of artists who try to capture the particular quality of these environments.
Connection to the natural world: For fishers this may occur through daily engagement with the marine environment, sometimes in very harsh conditions. For others, living by the coast may provide a certain perspective and sometimes religious and spiritual meanings for those communities.
Tourism: The presence of fishing, or the idea of 'fishing culture', provides an attraction for tourism. Visitors like to watch the boats in the harbour, the fishermen unloading the daily catch and they enjoy eating locally-caught fish in a harbourside restaurant.
Knowledge**:** Fishers may have a particular knowledge about the marine environment in which they work, along with the skills and traditions associated with that activity. Educating and passing on that knowledge is an important part of maintaining cultural identity.

Thus, the act of engaging with the undersea marine world through fishing is something that is deeply rooted through generations of his family. For another fisherman from Hastings fishing was described as 'in your blood':

> "You know this has got such a pull, I mean when I was 6 or 7 years old I was down here helping pull the boats, you know we'd pull the blocks of wood up, and I couldn't wait to see what my dad had caught you know couldn't wait to, he'd give you 10 fish, one on each finger through the gills, to bring up to the top there to sell to the people what were, used to get your 2 bob[2] pocket money that way. Go home stinking, mum would chuck you in the bath and chuck your clothes into the sink to wash but it was from as young as you understood you was kind of part of it, it was part of you. And it's never, it never goes away you know... that's why we do it, it's in your blood" (Jim, Fisherman, Hastings).

The fishermen in our study spoke about fishing as something that was deeply ingrained in

[2] "Bob" is a slang term for a shilling, a former unit of currency in the UK, the equivalent of 5 pence in today's money.

their sense of identity. The process of engaging with the undersea world has helped shape who they are. However, the cultural value of fishing is not just limited to those that are directly engaged with the activity but is also bound up with broader community identity, as the following response from a local authority representative in Hastings illustrates;

> "Last week [Jessica] and I were taking some infants on a walk across the beach and they got to see a boat coming in and landing and they got to see the fishermen sorting their cuttle nets on the beach … it's like a living open-air museum really, because you don't know what you'll find, they might be sorting out nets, or mending their nets, or repairing, or a boat builder repairing a boat as well, so it's very exciting for children, especially when you go around and that's, you know, that's real fishermen really doing it, he's not pretending to do that for you especially" (Gemma, local authority representative, Hastings)

Non-material cultural value is felt in many other ways, for instance through social cohesion, as Aaron, a tourism provider from Whitstable, illustrates:

> "Its certainly the glue of a place you know ... and that [fishing] is the sort of thing that you need to keep going in a town otherwise it becomes a bit soulless I think."

Alongside this, an important aspect of fishing was the daily engagement with the natural environment:

> "There is the love of the sea and of the environment itself which is important which pushes to accept the difficulties of the profession which is actually quite, it is hard work being a fisherman ... Well the freedom, the pleasure of fishing, of trying to understand nature" (Théodore, fishermen's organisation, Boulogne)

Many of our interviewees spoke about the way that fishing gave them a connection with nature. It is important to remember that our study was focused mainly on small-scale fishing where the size of the boats and the methods of fishing are quite different to the large industrial fleets. Throughout our study sample the value of being out at sea was an integral element of the experience.

However, the cultural value of fishing is not just restricted to an immaterial dimension. Fishing also exerts a strong influence on the character of places through the material environment and we documented many examples throughout the study area (Acott and Urquhart 2012). These included the importance of the fishing boats in influencing place character through to the fishing gear that is often present around the harbour. These cultural objects are present in coastal towns because of the fishing activity, they are an important marker showing fishing is still an active process and is not just a heritage attraction:

> "You can see the boats, you can walk amongst the boats, you can see the fishermen working, it's real life, it's not just some stuffed museum... it's still real, it's not just a pastiche" (John, borough council representative, Hastings).

In addition to the boats and the gear fishing activity also finds cultural expression in the influence on building use and architecture, place decorations (where fishing imagery and objects are used to create a particular place character), the production of souvenirs, placement of information boards and expression in local culture and art (for instance paintings, music, pottery, metal work).

The preceding examples illustrate the deep cultural associations that can be formed as a result of marine fishing. A key actor in this process is the marine environment, providing the source

of fish caught by fishermen. In ecosystem services terms there would be little disagreement that the marine environment is providing a 'provisioning service' resulting in nutritional benefits, amongst other things. However, we propose that in providing fish as a source of food, fishing is itself a deeply cultural activity. The process of fishing is entangling the activities of fishers with the marine environment and resulting in many diverse socio-cultural, economic and environmental values. The process of fishing is inherently fluid, changing through time and is caught up with myriad political, economic and institutional forces. In the same way the marine environment is part of a web of transformations resulting in food on our plates, but it is also part of a web spanning and connecting individual and community identity, social cohesion, architecture, material objects, music, and art, to name a few.

What emerges from this analysis is the recognition that marine fishing is not just an economic activity, but it also needs to be understood as a cultural process that drives a series of socio-cultural / ecological transformations (see Table 2.1) that in turn can influence wellbeing. It is here, then, that our attention must turn to the relationship between cultural ecosystem services, sense of place and wellbeing. The following section, therefore, outlines the social wellbeing framework that has been applied to SSF before moving on to a discussion about bringing together wellbeing, cultural ecosystem services and sense of place in a co-constructed framework.

2.4 A framework for social wellbeing

As outlined above, the idea of wellbeing is becoming popular although its usage often remains vague and imprecise. There is pressure on governments to make wellbeing the focus of policy interventions rather than an emphasis on the more narrowly defined 'material prosperity' (Atkinson et al. 2012a). For the purposes of this chapter we focus on the contribution of the three dimensional approach to wellbeing by Britton and Coulthard (2013), Weeratunge et al. (2014), Charles et al. (2012), Coulthard (2012) and Coulthard et al. (2011).

Coulthard et al. (2011) define wellbeing as ''a state of being with others, which arises where human needs are met, where one can act meaningfully to pursue one's goals, and where one can enjoy a satisfactory quality of life (McGregor, 2008)" (pg. 454). This definition is formed around the way meanings are translated into an experience of wellbeing. Such insights are valuable in advancing ideas about how wellbeing and geographical contexts can give rise to different experiences and practice. The three dimensional aspect of wellbeing is discussed by McGregor and Sumner (2010) who define 'material', 'relational' and 'subjective' dimensions. The material dimension refers to 'what a person has', the relational to 'what they can do with what they have' and the subjective to 'how they think about what they have and can do' (McGregor 2006). The different elements of a social wellbeing approach in SSF are illustrated in Figure 2.2.

INSERT FIGURE 2.2 HERE

These schemes of wellbeing add insight into the multiple dimensions that constitute human welfare. Weeratunge et al. (2014) argue for the utility of the three-dimensional wellbeing framework as an analytical lens for understanding SSF. Their perspective draws attention to the multiple ways that SSF is bound up with the wellbeing of people and begins to address the limitations of an economic analysis alone. Additionally this perspective has been developed in

reaction to the perceived dominance of the economic and biological focus of fisheries management. It is argued that wellbeing is used to add a social perspective in analytical frameworks (Charles et al. 2012). However, in making this move it is important not to lose sight of the physical and ecological dimensions as well, alongside the complex interactions that tie them together. Here, then, the utility of a co-constructionist perspective becomes apparent that draws together a placed based approach with cultural ecosystem services and wellbeing.

2.5 Bringing it all together

Alongside pressure on governments to shift from an emphasis on material prosperity to wellbeing are increasing calls for more responsive policy-making that bring in local voices and local accountability (Atkinson et al. 2012a). This move towards the local can be realised through ideas of place making and place-shaping (Shneekloth and Shibley 1994; Steuer and Marks 2009). Integrating a social wellbeing approach with the sense of place approach developed by Acott and Urquhart (2014) and Urquhart and Acott (2014) can help to make more explicit a range of social issues important in human welfare in relation to SSF. For example, gender relations, class relations, food security etc. While these (and other related) issues might be raised in a sense of place analysis, they are not presented as prominently as in a wellbeing approach. Conversely, using sense of place in the context of wellbeing draws out the importance of the phenomenological meanings that people attach to places through place attachment, place dependence, place identity and place satisfaction. These aspects link to the subjective dimension of social wellbeing with the local voice of people being emphasised. However, sense of place also draws in the importance of the physical environment. While much emphasis in the sense of place literature is on the subjective meanings that people assign to places the importance of the physical environment is also highlighted (Stedman, 2003). In the case of SSF this can be demonstrated in the way fishing activity exerts an influence on the physical character of place e.g. through street decoration, signage, monuments, house decoration, fishing clutter etc. (Acott and Urquhart 2014). The appearance of the physical environment is an important element of place identity and has implications for tourism and regeneration as well as local communities.

These ideas of subjective and material components of sense of place are strongly echoed in the social wellbeing use of subjective and objective parameters (objective being further divided into relational and material within this scheme). Sense of place, therefore, addresses a series of complementary ideas to wellbeing. There is increasing interest in bringing place into a wellbeing framework as demonstrated by the recent publication titled 'Wellbeing and Place' which suggests that wellbeing is fundamentally tied to place (Atkinson et al. 2012b). While Atkinson et al.'s approach focused on wellbeing in the context of health related issues there is considerable scope to further develop perspectives that see wellbeing in situational and relational place-based contexts.

In addition to place-based and wellbeing perspectives, consideration of cultural ecosystem services explicitly brings in the ecological through reference to the ecosystem services framework. Ecosystem services highlight the importance of the ecology that underpins our use of the natural environment. In the case of SSF reference to ecosystem services draws attention to the marine environment, the sustainability of the fishing operation, and the flows between marine and terrestrial environments. In taking this holistic perspective the relations between social, economic and environmental sustainability are drawn out. Although there are problems with the way that

ecosystem services are conceptualised (Chan et al. 2012), as a heuristic device they do provide a mechanism to reflect on relationships between the biophysical properties of environments and human interaction and use of those environments. However, more work needs to be done to develop our understanding of the relationship between ecosystem services, place and wellbeing. As Fish (2011) suggests: "Advocates of the ecosystem services framework need to develop a more elaborate understanding of how a rich and variegated term such as 'well-being' maps back onto the services that nature provides" (pg. 673). We argue this includes having a deeper understanding of the role of culture and value in ecosystem services and the multiple entanglements that arise in socio-ecological systems as humans and other elements of the environment come together.

Bringing together sense of place, cultural ecosystem services and wellbeing is a step towards a more comprehensive understanding of the relationships between people, place and the environment in coastal communities. However, in thinking about the relations between human wellbeing, the marine ecological resource and the physical environment (marine and terrestrial) it becomes apparent that a perspective is needed that moves beyond dualistic accounts of nature and culture and can make sense of the complex entanglements that connect nature and society. Such a move takes us beyond a social perspective to thinking about co-relations spun between nature / culture, human /non-human and marine/terrestrial contexts.

2.6 A co-constructed approach

Coastal towns or places with an inshore fishing fleet can be thought of as co-constructed places entangling human perceptions, meanings and values with the natural and human-made spatial reality of place. In other words, coastal places are where natural and human processes intersect through the physical manifestations of fishing and the cultural meanings, practices and emotions linked to marine environments. In this way, coastal towns with fishing fleets become the sites where, through the activity of fishing, the cultural services that humans derive from marine ecosystems become apparent through the entanglement of the natural and human-made environment, material cultural, memory, meaning and human activity. Fishing is, therefore, a transformational activity generating relational networks linking marine and terrestrial environments.

There is an increasing amount of attention being paid to research traditions that eschew the nature / society distinction in favour of socio-natural assemblages understood through a lens of co-constructionism (for example see Fischer and Eastwood (2016)). There are numerous positions that could be placed into this category (although not all scholars would necessarily accept this classification) including actor network theory (Latour 2005), hybrid geography (Whatmore 2002) and non-representational theory (Thrift 2007). Co-constructionism is broadly an attempt to move beyond the social / nature divide and (re)imagine the world from a fundamentally relational perspective. There is, of course, much debate about what such a move would entail and there are many voices contributing to this debate (Hinchliffe and Woodward 2000; Castree 2005, 2013; Hannigan 2014; Irwin 2001; Cudworth 2003; Robbins 2004; Soper 1995; Braun and Castree 1998; Macnaghten and Urry 1998; Eder 1996).

There are already calls that suggest an understanding of CES requires revisiting binary divisions of nature and culture. Fish (2011) purports that the MEA definition of cultural ecosystem services is problematic in that it puts forward a simplified and reductive idea of culture. He suggests that: "… given the presumed importance of 'ecosystems' to all services, it might logically

be more consistent to put 'culture' on an equally foundational footing as that of 'ecosystems'. It would not be implausible to think of the framework as really one of 'ecosystem-cultural services' or, perhaps more elegantly, 'culture-nature' services" (Fish 2011, pg. 675). Other researchers (Pröpper and Haupts 2014) argue that more attention needs to be paid to an understanding of culture and process in the context of ecosystem services. Winthrop (2014) suggests that the ecosystem approach is too narrow to provide insight into knowledge systems, social relations and sense of place and suggests that we need to revisit our understanding of human-natural systems.

In the context of maritime studies increasing attention is being paid to the relevance and utility of co-constructionist perspectives. Examples include Callon's thoughts on the domestication of scallops and fishermen (Callon 1986); Nightingale's (2013) exploration of the relationality of subjects, emotions and socio-natures in the context of Scottish fisheries management; Bear's (2012) description of the regulatory practices in the Cardigan Bay scallop fishery using assemblage theory and Bear and Eden's (2008) use of hybrid geography to describe fluid spaces of fisheries certification. Further, Rossiter et al. (2014) draw on a materialist perspective into assemblages, affect and emotion to offer ways of thinking about marine spaces. They suggest that: "While what we have discussed here certainly provides no panacea, it may offer a somewhat novel way of thinking about and engaging with marine-space(s), a praxis that recognizes its ever assembling and fluid nature ecologically, epistemologically, and ontologically inclusive of the human and socio-cultural" (Rossiter et al. 2014, pg. 7). They provide four suggestions about the way materialist insights can pragmatically enhance fisheries policy. First, ontological and discursive shifts must take place allowing the socio-cultural to be made more visible. Second, a multiplicity of ways of knowing must be admitted. Third, the importance of co-management is emphasised. Fourth, the importance of recognising heterogeneity in different geographic places is identified.

The insights provided by Rossiter et al. (2014) can inform a bringing together of sense of place, cultural ecosystem services and wellbeing. However, for this to happen there are issues of semantics to be addressed. The terms 'relational', 'subjective' and 'material' form the foundation of the social wellbeing approach. However, the meaning of these terms needs to be set against the context of other uses in environmental sociology more broadly. For instance, in the framework presented by Weeratunge et al. (2014) material, relational and subjective are understood as:

> 'material' concerns encompass practical welfare and standards of living (for example, income, wealth, assets, environmental quality, physical health and livelihood concerns among others)
>
> 'relational' aspects include relations of love and care, networks of support and obligation, social, political and cultural identities, including relations with respect to organs of the state and formal structures, which determine the scope for personal action and influence in the community
>
> 'subjective' spans notions of self, individual and shared hopes, fears and aspirations, expressed levels of satisfaction or dissatisfaction, trust and confidence among other things

Similarly Charles et al. (2012) defines the terms as (pg. 2):

> The material dimension focuses on what (resources) a person has and the extent to which the needs of the person are met,
>
> The relational dimension considers social relationships which the person engages in to pursue wellbeing (for example, relations which give access to market or resources, or shape behaviour through institutions, family and social structures),

The cognitive / subjective dimension accounts for satisfaction with the quality of life that is achieved (e.g., 'happiness')

In one reading these definitions move us towards a more holistic understand of people-environment relationships by grounding subjective desires into a relational perspective (White 2010). This approach allows for (and perhaps encourages) a broad interpretation of human-nature relations. However, there is also arguably a strong social emphasis that runs through this wellbeing literature. For instance, Panelli and Tipa (2009) challenge the conventional understanding of wellbeing and instead highlight the complex intersection of people, place and 'nature-culture' relations in the context of food practices and indigenous wellbeing.

If part of the value of wellbeing is its use as an analytical lens or a heuristic device then there is value in revisiting the definition of terms so that relational associations between nature and society are made more explicit. For example, we might extend the idea of 'material' beyond 'what a person has' and use the term to refer to both natural and human-made objects or environments and the way these are encountered by people (Woodward 2007). In the context of SSF this might refer to how the activities of fishermen influence the physical world through the ecological impact on levels of fish stocks through to fishermen creating artworks for the tourist market, the buildings that are established for the fishing industry (netlofts, warehouses, harbours etc.).

The emphasis of 'relational' in the preceding examples refers to social relations. This is clearly an important aspect of fisheries governance and understanding the broader societal importance of SSF. However, 'relational' can also be interpreted more broadly as the webs of associations that exist between different parts of the environment; for instance between the human and non-human, marine and terrestrial etc. From this broader perspective the idea of relational has the potential to capture intimate connections of marine organisms and a range of terrestrial effects. Networks are created between multiple actors driven by the values of marine organisms. An obvious example is selling fish for human nutrition. This nutritional value is embedded in a long chain of transformations (fish, catching, landing, market, processing, selling, distribution, cooking, eating). The creation of multiple values drives these transformations with complex webs of associations emerging (e.g. the industry surrounding cooking fish, the production of fisheries-related tourist souvenirs, the importance of fishing for community identity, the levels of stocks impacted by regulation).

Relationality can be used as a way of expressing the intimate, often invisible links, between marine organisms and terrestrial environments. Figure 3 expresses these links in terms of transformation. SSF can be considered a driver that connects marine and terrestrial environments. Taking fish from the ocean results in a series of transformations creating effects in the terrestrial environment e.g. income, art, architecture, sculpture, identity, social cohesion etc. These effects can be explored through place-based and wellbeing narratives.

INSERT FIGURE 2.3 HERE

Such a relational perspective encourages a holistic way of thinking about the effects and affects of SSF and is not restricted by disciplinary or sectoral boundaries. The challenge is how to identify the flows and transformations that exist. The problems of integrating a cultural perspective with a policy making framework dominated by natural science and economics is illustrated by Leyshon (2014). A holistic perspective will necessarily involve different disciplinary perspectives (sociology, anthropology, politics, economy, ecology, health, environmental science etc.) and may

also highlight new opportunities for increasing environmental and human wellbeing (e.g. more clearly understanding the links between tourism, planning, livelihoods etc.). Understanding more about non-representational facets of human / environment encounters may also add new insights into the importance of place for wellbeing (Andrews et al. 2014). If an overarching goal is to understand the value of SSF we believe that such multi-perspective approaches that focus on relationships spun between the social and ecological are essential.

2.7 Conclusion

Fisheries management has been widely criticised as focusing on economic and biological concerns. The wellbeing approaches set out in this edited volume help to rectify that problem by focusing attention on human aspects of welfare and the myriad values that emerge from SSF. In adopting this perspective though it is important to include the socio-ecological aspects of fisheries as well as the purely social. We believe that adopting a co-constructionist perspective, related to understanding sense of place, cultural ecosystem services and wellbeing can help make visible relational associations between the marine and terrestrial environments revealing potentially hidden values of SSF.

Places are more than static backdrops, they are dynamic, fluid, process-driven locations constantly evolving as environment, people, activities, legislation, policies etc. interrelate in complex and unexpected ways. Finding ways to understand and map these processes and flows as the marine and terrestrial worlds collide is part of the challenge of developing sustainable coastal communities. SSF is an activity that has an impact on and emerges from both socio-cultural and natural worlds and thus calls for interdisciplinary approaches to understand the complex people-place-environment relationships that occur in fishing communities. Perhaps a new politics of responsibility will be required as greater consideration and visibility is given to the entwining of human and non-human dimensions.

At the start of their paper Pröpper and Haupts (2014) suggest that ‘People worldwide depend on resources that nature provides for their lives, often without full awareness of their true value’ (pg. 28). Consideration of the values of nature is an appropriate point to conclude this chapter. The emphasis in much of the preceding discussion has been to make an argument about the need to bring together different conceptual perspectives in order to reveal the values of small-scale fisheries. Biological and economic assessments capture an important, but partial, picture of the importance of fisheries. If ultimately the future of fisheries depends on the policy frameworks within which the industry operates and on grassroots understanding of the importance of the activity, then it is vital that approaches are used that can adequately capture the complex array of ecological and cultural entanglements that emerge as a result of fishing activity. An ecosystems approach has the danger of falling into the trap of being dominated by natural scientists and economists. A rethinking of cultural ecosystem services, in light of ideas like sense of place and social wellbeing, provide avenues for thinking more holistically about culture and nature. However, pursuing this agenda raises philosophical problems for thinking about dualistic versus non-dualistic epistemologies and ontologies.

Attending to a socio-ecological world is no small task, in part it means reappraising what we mean by culture and nature as we become aware of a world that is not divided into separate clear cut categories. The overlapping and interdependent dimensions of nature-culture values means we need to think about a broad range of parameters in decision making (Pröpper and Haupts

2014). What we value individually and as a society reflects what we think is important. If value is a deeply embedded culture-nature process then approaches are needed that can pursue value across multiple subjective and objective dimensions. Rethinking SSF from a relational place-based socio-ecological perspective opens up opportunities to see how multiple values are bound up with fishing practice. It is hoped that this chapter will encourage people to think about how to understand the importance of SSF for society and to reflect on the value dimensions that draw together socio-ecological dimensions.

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Figure captions:

Fig. 2.1 Sense of Place, fisheries and CES (Tim Acott and Urquhart 2014, pg. 264)

Fig. 2.2 Facets of social wellbeing in SSF (Weeratunge et al. 2014, pg. 267)

Fig. 2.3. A co-constructionist view of SSF, wellbeing and sense of place