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Poverty, sustainability and human wellbeing: A social wellbeing approach to the global fisheries crisis

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ABSTRACT

The purpose of this paper is to explore the extent to which a social wellbeing approach can offer a useful way of addressing the policy challenge of reconciling poverty and environmental objectives for development policy makers. In order to provide detail from engagement with a specific policy challenge it takes as its illustrative example the global fisheries crisis. This crisis portends not only an environmental disaster but also a catastrophe for human development and for the millions of people directly dependent upon fish resources for their livelihoods and food security. The paper presents the argument for framing the policy problem using a social conception of human wellbeing, suggesting that this approach provides insights which have the potential to improve fisheries policy and governance. By broadening the scope of analysis to consider values, aspirations and motivations and by focusing on the wide range of social relationships that are integral to people achieving their wellbeing, it provides a basis for better understanding the competing interests in fisheries which generate conflict and which often undermine existing policy regimes.

1. Introduction

It has been evident for some time that the pursuit of human wellbeing places tremendous strains on our global natural environment and on the sustainability of a whole range of ecosystems around the world. The voracious exploitation of natural resources for consumption and to feed economic growth, and the use of the global environment as a sink for the pollutants that our development paths generate threaten a range of catastrophes on a range of scales: from the global dimensions of climate change to local ecosystem collapses. But human wellbeing is not evenly distributed around the globe. While some populations have been doing exceedingly well out of our resource intensive global development, others struggle to achieve a basic standard of life and cannot be regarded as having meaningfully achieved a state of wellbeing (MEA, 2005; UN, 2010). There is increasing high level recognition that the policy focus for societal development and progress needs to be reoriented away from the measurement and promotion of production to the question of how societal development is to sustainably support human wellbeing (see the Sarkozy Commission Report, 2009). This paper seeks to contribute to this global debate by presenting a way of framing the analysis of a core problem for environment and development policy: that of addressing conservation concerns alongside a will to reduce human poverty. We focus on the particular example of the global fisheries crisis as a means of providing detailed illustration of how a social wellbeing approach offers distinctive insights for policy processes that are intended to reconcile poverty reduction and ecosystem conservation in fishing communities.

During the last two decades of the 20th century, the balance has shifted from marine fisheries being perceived as inexhaustible, to fisheries as a sector in crisis (McGoodwin, 1990; Pauly et al., 2002, 2005). This shift in thinking has come none too soon given the ecological vulnerability of fisheries ecosystems (Pauly et al., 1998; Jackson et al., 2001; Myers and Worm, 2003; Worm et al., 2006) but also because of the risk that declining fisheries pose for human development (FAO, 2005). While the contribution of fisheries to food security and livelihoods is difficult to quantify at a global scale due to inadequate data, we do know that millions of people globally are directly dependent upon fishing for their livelihoods and many more depend on protein rich fish as a basis for their food security (Allison and Ellis, 2001; Allison et al., 2009). This dependence on fisheries is acute at the regional and local level in developing countries and for poor and marginalized populations in particular (Béné et al., 2007; FAO, 2009). The continued erosion or outright collapse of fisheries would represent a substantial

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setback for our global prospects of tackling the problem of chronic poverty and specifically for meeting the Millennium Development Goals that committed governments and international agencies around the world to concerted efforts to reduce debilitating poverty in an environmentally sustainable way.

There is little doubt that major policy initiatives are needed to address the global fisheries crisis, but there is considerable divergence in views about what actions they should consist of (Charles, 1994; Degnbol et al., 2006; Pitcher and Lam, 2010). We argue that how we frame this policy problem is vitally important for the choices that then become available for consideration. Not all forms of analysis that flow from the different framings of the problem offer a sufficient level of understanding of the fishing-dependent communities and regions in developing countries to enable the formulation and implementation of effective and sustainable fisheries policy and management.

Framing the problem in terms of human wellbeing affords important additional insights into how effective policy and governance for fisheries can be constructed. Our limited understanding of how fishers and fishing communities are currently responding to environmental and economic challenges is indicative of weaknesses in current approaches, and makes it difficult to predict how people will respond to policy measures that are intended to address the fisheries crisis. A key premise of this paper is that whichever policy direction is taken it is important to begin by recognizing that fishers and their organizations are central to the solution and that they will have a key role to play in mitigating or exacerbating the crisis (Pomeroy, 1995; Jentoft, 2000a; Wiber et al., 2004).

The Millennium Ecosystem Assessment of 2005 (MEA, 2005) pointed out that current processes of ecosystem degradation are having uneven impacts on poor people. It goes on to criticize standard policy responses to ecosystem degradation, stating that: "The pattern of 'winners' and 'losers' associated with ecosystem change – and in particular the impact of ecosystem changes on poor people, women and indigenous peoples – has not been adequately taken into account in management decisions" (MEA, 2005: 13). Fisheries policy often has demonstrated a limited comprehension of the ways that policy and management measures can either reinforce existing patterns of 'winning' and 'losing'or create new 'winners' and 'losers'. Policy and management deliberations over how to respond to the global fisheries crisis in poorer developing countries are often discussed in terms of the technical challenges involved, but sidestep the broader moral challenge of how to govern fisheries for conservation without worsening the plight of the already vulnerable men, women and children who depend on them.

Following Nussbaum (2000), in her discussion of the ethics of researching social policy problems, the approach we adopt here takes the normative dimension of this problem as being integrally related to the pragmatic assessment of what fisheries policy and management options will work (Nussbaum, 2000). Fisheries are composed of diverse actors, whether governors, conservationists, fish processors and traders, industrial and small-scale fishers, or women, men, and children, each with different aims, values, and preferences and different capacities to make their concerns heard. These different views, aspirations and capabilities must be taken into account in any analysis which is intended to support an effective policy process.

In fisheries management currently dominant analytical approaches are founded in well-established disciplinary visions aligned with particular value orientations and with commensurate 'technical' responses (Degnbol et al., 2006). The view advanced in this paper is that a focus on human wellbeing enhances these other approaches by illuminating the importance of engaging with social, cultural and motivational heterogeneity not only amongst fishers but also amongst those seeking to influence fisheries management policy (Kooiman et al., 2005; Coward et al., 2000; Jentoft and Chuenpagdee, 2010). By understanding this diversity of positions, we begin to identify the 'hard choices' that they then generate for fisheries policy decision makers; and as such, we begin to develop a basis of greater transparency from which to negotiate workable policy outcomes.

As we have noted the concept of human wellbeing is enjoying a revival in policy debates about environmental sustainability. The Millennium Ecosystem Assessment argued that environmental sustainability is essential for our ability to secure future human wellbeing (MEA, 2005). But although the term wellbeing is widely deployed in the literature it is often used vaguely and it tends to be weakly conceptualised (see for example, Deutsch et al., 2003; Stedman et al., 2004).[1] In this paper we agree with the basic thrust of the MEA argument but offer a more substantial and stipulative definition of human wellbeing which is that "Wellbeing is 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).

As will be explained in greater detail later this is a social conception of wellbeing which allows us to further explore the relationships between environmental, social, political, and economic sustainability. These relationships are important for policy and management measures that are intended to arrest ecosystem degradation since they provide the key to understanding how a sustainable level of consent can be generated amongst the people and communities that are to be governed by that policy and whose wellbeing depends on those ecosystems.

In fisheries, the need for a high level of collective endorsement of policy is arguably greater than for many other natural resource ecosystems given the invisible and fugitive nature of most fisheries resources and their common-pool characteristics. The subtractability of the resource and the associated difficulty of exclusion mean that fisheries governance has a pronounced need for institutional legitimacy (Berkes et al., 1989; Jentoft, 2000b). Weak institutions and governance arrangements mean that fisheries resource users are generally able to engage in unsanctioned extractive practices, as is demonstrated by the large amount of illegal and unreported fishing globally (Agnew et al., 2009).

We begin the discussion with an overview of the human and ecological dimensions of the fisheries crisis and particularly consider the implications of currently dominant fisheries policy approaches for poverty reduction. We then explain what is entailed in a social conception of human wellbeing and briefly describe a methodology for operationalizing it in the study of human and fisheries ecosystem interactions. The article concludes with a discussion of a number of the additional insights that a social wellbeing approach brings to fisheries governance debates. In particular it considers the types of trade-offs and subsequent 'hard choices' that must be confronted in fisheries policy formulation and implementation (Bailey and Jentoft, 1990; Kooiman et al., 2005). None of this analysis implies that hard choices in fisheries policy are made any easier by adopting a human wellbeing analysis, but it argues that realistic policy and governance processes which are also concerned with poverty reduction must find ways of handling these rather than assuming them away.

2. The fisheries crisis, fisheries poverty and policy responses

Until recently fisheries were regarded as having vast potential to satisfy food needs and stimulate economic growth (e.g.: Ellis,

[1] For a more substantial and coherent use of the concept of wellbeing in relation to fisheries see Pollnac et al. (2006).

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2003: 11–12; McGoodwin, 1990: 1). While this view has been contested from as far back as the 1850s (Rose, 2007: 321), the assumption of marine resource abundance was a convenient basis for resource-driven economic development (Bavinck and Johnson, 2008). Fisheries modernization and human development were seen as going hand-in-hand. The opening up of global markets for fisheries products was regarded as a good means by which to increase employment and incomes from fisheries worldwide. Industrialized countries spearheaded the modernization of fishing during the first half of the 20th century through mechanization of fleets and the modernization of marketing systems. Following their lead, many developing countries have sought to build up their economies and improve the lives of millions of people by similarly modernizing their marine fisheries sectors. International organizations such as the World Bank and the Food and Agriculture Organization of the United Nations (FAO) have assisted in these modernizing efforts and their programs have contributed globally to dramatically raising fisheries productivity and increasing employment in fisheries. In 2006, an estimated 35 million people worked globally as fishers, with the great majority of these in Asia, Africa, and Latin America (FAO, 2009). During the past three decades, the number of fishers has grown at a faster rate than the world's population (ibid).

This global increase in fishing effort has resulted in the overexploitation of valued species and the decline of fish stocks in many parts of the world (Pauly et al., 2002, FAO, 2009). The global wake-up call on the vulnerability of commercial fisheries was the collapse of the Canadian northern cod fishery in 1992 which triggered an outpouring of popular and academic soul searching on marine fisheries that has yet to cease (e.g. Hilborn et al., 2003; Clover, 2008; Grescoe, 2008). The cod collapse was an environmental disaster that ushered in an era of hardship for the Newfoundland coastal population with an estimated loss of over 40,000 jobs (Kelley, 1993, cited in Binkley, 2000). Since then concern for other commercial fish stocks around the world has been heightened, particularly in the context of developing countries: as Allison observes, "if one of the world's largest fisheries, exploited continuously for over 500 years, could not be sustained by a nation with an advanced research, monitoring and management capacity, it left little hope for success elsewhere" (2001: 933).

Although the narrative of inexhaustibility has now been replaced by a much more sober assessment of the state of world fisheries, there continues to be a risk that incomplete understandings of the causes of fisheries degradation and panaceas to address them will exacerbate the problem (Ostrom, 2007). In the developing country context, a significant concern is the prevalence of superficial understandings of the relationship between poverty and fisheries in biological and economic approaches to fisheries management. Béné (2003) has pointed out that there has been a longstanding presumption that equates fishing with poverty. When put alongside Hardin's dominant idea of the 'tragedy of the commons', this view suggests that the combination of poverty and open access inevitably produces a downward spiral of resource overexploitation and the further impoverishment of the fishing population. According to this view not only do the poor tend to overfish but because fisheries are perceived as 'open access' they are presented as being easily accessible to those without skills, land or education to generate livelihoods in other ways (Bailey, 1988 cited in Béné, 2003). As Béné puts it, "This is a perception of fisheries as an employer of the "last resort" or as a "safety valve" for the poor" (2003: 955). These views also reinforce a related perception that fishing is a low status occupation.

The assumptions that fisheries are open access and that fishers are uniformly poor and that their occupation is low status are not widely borne out. A large literature has grown up since the 1980s showing the high prevalence of commons institutions in small-scale fisheries for the regulation of access to fisheries resources (e.g. Carrier, 1987; McCay and Acheson, 1987; Hviding, 1996; Bavinck, 2001). Similarly, research has shown that fisher populations, or parts of fisher populations may be comparatively well off (Ram, 1992; Johnson and Sathyaplan, 2006) or comparable to other non-fisher groups in terms of their overall set of assets (Cinner et al., 2010). The job satisfaction and overall wellbeing of fishers may be comparatively high (Pollnac and Poggie, 2006) and they may not necessarily be of low social status (Bavinck, 2001; van Ginkel, 2007, see also Ashforth and Kreiner, 1999). It is important that fisheries policy deliberations do not start with a misconception of fishing communities in developing countries as being comprised of poor (and, by implication, less educated) and low status people. As with any other human group, fishers vary amongst themselves and in relation to other groups in society.

The sustainable livelihoods approach has been applied to fishing communities and has made headway in bringing greater sensitivity to the analysis of poverty in fishing (Allison and Ellis, 2001; Thorpe et al., 2007). Sustainable livelihood studies provide detailed insight into how the distribution of incomes and assets often vary considerably within a particular fishing community, and while some fishing households may be poor, many others are not (Béné, 2003). The livelihoods approach also highlights the ways that some fishing households command diversified livelihood strategies which include opportunities for temporary or part-time income generation or employment in other sectors of the economy (Marschke and Berkes, 2006). For some fishing households this diversification provides flexibility and serves to reduce their vulnerability to fluctuations in fishing incomes (Sarch and Birkett, 2000). By giving insight into the range of livelihood strategies found in fishing communities, this approach also highlights how different patterns of asset holding and diversification of livelihood portfolios can either enable or constrain fishing households to adapt not only to changing economic and biological circumstances but also to changing policy and management regimes (Thorpe et al., 2007).

The hegemony of biological and economic approaches to fisheries management until the 1990s and their continued dominance (McClanahan and Castilla, 2007; Béné et al., 2010) has generally downplayed social relational insights provided by approaches like sustainable livelihoods. This has meant that recognition of the implications of differentiation within fishing communities for the implementability of policy measures has been limited (McGoodwin, 1990). Differences in gear types, rights over fishing spaces, and in the availability of capital for investment are most commonly taken into account and are important. But the broader differences highlighted by the livelihoods framework, for example, in other asset holdings and in the social and economic relationships that support livelihood alternatives are less often taken into account. The social and political position of fishing households in their communities works alongside control over economic assets to create variations amongst fishing households in the ways they respond to management policies and regimes, and in their ability to cope and live with the wider changes that such interventions induce.

Although the sustainable livelihoods framework tempts us towards consideration of more social and cultural dimensions of peoples' lives and livelihoods it is limited in its engagement with these (Bebbington, 2000; De Haan and Zoomers, 2005). The wellbeing framework builds on this subject by encouraging us to engage with the reality that fishing communities are often characterized by other important forms of social differentiation (Acheson, 1988; McCay and Jentoft, 1998; Jentoft et al., 1998; Ruttan, 2006). These include differences in social status, differences in social norms, differences in values and aspirations

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amongst fishers. These dimensions of heterogeneity are seldom taken into account in mainstream fisheries policy analyses but there are good grounds to believe that they are important in how different fishers will respond to management and policy regimes. As Jentoft et al. (Jentoft et al., 1998:426) argue in their critique of rational choice interpretations of human behaviour: "Choices are not always made with individual gain in mind, and even when they are the gain is socially defined and shaped. Choices are also defined by fulfilment of social obligations, cultural conventions and the enactment of routines...interests also stem from positions individuals hold as members of social groups, communities and organizations".

Failing to take account of these wider dimensions of differentiation in fishing communities becomes a more critical political and policy problem when it is considered together with the widely shared view that the fisheries crisis is not caused by all fishers equally. The consequence can be a sense of injustice that serves to reduce the legitimacy of indiscriminate policy approaches (Bavinck and Johnson, 2008). Where poverty reduction is being targeted, it is of particular concern that poorer, small-scale artisanal fishers often perceive themselves as being asked to shoulder the burden of conservation, while large-scale commercial fishing, which many regard as responsible for reducing fish stocks and inflicting wider environmental damage, is seen as beyond the attention of the regulatory systems (UNEP, 2006). In this type of case the sense of injustice can be acute and serves to undermine the credibility of 'universalist' policy prescriptions (ICSF, 2008; Bavinck and Johnson, 2008; Coulthard, 2009a).

The most obvious and commonly advocated global policy response to the fisheries crisis is to reduce fishing effort by cutting the number of fishers and boats in operation; following the Malthusian argument that 'there are too many fishers chasing too few fish' (Pauly, 1988; Stone, 1997). Accordingly fisheries policy regimes around the world consistently adopt a set of policies whose main purpose is to reduce fishing effort and to remove fishers from those ecosystems perceived as under threat. The measures adopted involve the use of standard policy instruments such as licensing, gear restrictions, and catch quotas, but also newer approaches such as Individual Transferable Quotas (ITQs), which create individualized, virtual property rights in an effort to enable market type transactions, and Marine Protected Areas (MPAs), which can include the establishment of no-fishing zones in biologically vulnerable areas. As various authors have shown, there is no reason why at least some of these technical measures cannot be compatible with attention to human diversity and behavioural variation (Charles, 2001; McClanahan and Cinner, 2008). Often, however, such considerations are matters of a second order in fisheries policies devised within narrow biological and economic frameworks. This failing is most obvious in criticisms of the distributional shortcomings of ITQ-based management systems, much touted by mainstream fisheries economists (see Pálsson, 2006; McCay, 2009; Bromley, 2009; Johnson, 2006) but also can be seen in other less contentious measures such as MPAs that are preferred by fisheries biologists (Roberts et al., 2001).

To an extent the biological imperative can be justified by some positive supporting evidence from the establishment of Marine Parks (a form of MPA). These in many circumstances have proved a success in terms of the replenishment of fish stocks (McClanahan and Kaunda-Arara, 1996; Roberts, 1997; Agardy, 2000; Pauly et al., 2005). But while in some cases they can be regarded as a success in terms of the fish, they also have been subject to frequent criticism for being a failure in terms of the humans involved, particularly where universal advocacy neglects local context and need (Agardy et al., 2003). Christie (2004) sums it up succinctly when he argues that it is possible for the MPA approach to be a biological "success", but a social "failure". While they can result in increased fish abundance and diversity, they also can be drivers of social and economic marginalization and conflict. Where the level of conflict induced by the MPA becomes high the whole policy approach tends to break down and the biological objectives are then also undermined (Hauck and Kroese, 2006).

The Marine Protected Area approach is a poignant example of a type of management measure in which social and environmental goals are unevenly handled and where there is a weak analytical foundation from which to offer insight into how conflicts might be understood and resolved. The weakness is founded in the lack of attention to differential impacts that this type of management regime can have on the fishing society. This problem is increasingly recognized amongst scholars of marine park management and Cinner et al. (Cinner et al., 2010: 22) remark in the context of Kenya, that while most marine parks have been largely successful in terms of ecological parameters, it remains the case that "little is known about whether or how these parks may affect the socioeconomic conditions of fishers... apart from increasing food security".

A recent IUCN-WCPA report (2008) further clarifies the nature of the disjuncture between the biological and social framing of the challenges. It uses a continuum to define marine park types, with 'increasing ecological and biological protection' at one end, and at the other 'increasing managed land use and social protection' (IUCN-WCPA, 2008: 5). The report's effort to accommodate the polarized extremes is captured by the observation that MPAs "when appropriately placed and well managed...can contribute to reducing poverty and increasing the quality of life of surrounding communities" (ibid: 3). But the observation provides no systematic way of understanding how this appropriate placement and good management might come to be. The social failure, we argue, arises from not adequately understanding how the fishery relates to the wellbeing of all the people who are directly affected; the relationships that sustain them and their needs, motivations and constraints (see, for example, Faasen and Watts, 2007).

The rejection of fisheries policy regimes and violent challenges to fisheries governance are common around the world and reflect a gulf between the rationale of policy makers and that of many fishers (Charles, 1992; Hauck and Sweijd, 1999). While from a scientific point of view this may be seen as fishers failing to understand the grave nature of the biological problem and the scientific inevitability of the conservation solution, it also reflects an inadequate understanding of the social consequences of management choices on the part of policy decision makers. The incursion of seventy armed fishermen into the Tsitsikamma National Marine Park in South Africa[2] in 2007 illustrates the ubiquity of violent responses (Faasen and Watts, 2007), while the ongoing court cases of displaced salmon fishers in Northern Ireland, who protest their rights for continued access, illustrate the quieter more institutionalized form of dispute. In most cases, the fight against a contested fisheries policy is based in a combination of a sense of unfairness and exclusion from policy decision-making processes (Jentoft, 2000b). As one fisher in Northern Ireland notes:

"We never get a chance for our voice to be heard...we've given up on finding an answer or a solution...It's one of the few pleasures we get today, fighting it out, battling for our livelihoods." (Britton, 2009, p.31)

All public policies that affect human beings, including those that deal with the conservation of the natural environment are at their heart political acts and never can be presented merely as technical solutions (Majone, 1989). As such the wellbeing approach indicates that a key challenge for reconstructing

[2] The Herald News, South Africa. 14th September, 2007, Marine Times 2008.

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legitimacy for fisheries policy and governance in a time of crisis lies in systematically reconnecting fisheries policy processes with the detail of local realities and local perceptions of the problem (McGregor, 2004, Kooiman et al., 2005). The pragmatic basis of this view is that effective governance, if it is not to be enforced by coercion, must be founded in the realities of local relationships and power structures. But it is also founded in a broader ethical concern. The displacement of fishers from often ancestral occupations that are the basis for pride, a sense of personal and social identity and of cultural heritage raises fundamental questions about the trade-offs between conservation, development and the human right to a distinctive and culturally informed way of life (Perez de Cuellar, 1995).

3. A social conception of wellbeing

For the social wellbeing approach to be useful for the analysis of the fisheries crisis, however, we need to be more precise about what it consists of. In this section we will outline the conceptual basis, explain some of its rationale and briefly introduce the associated methodology. As we have noted the term wellbeing has been much used and abused in development rhetoric, policy pronouncements and in the literature but it has seldom been meaningfully put into use in development policy and practice. A first objection to its use in policy work is often that wellbeing is a fuzzy concept and that it means many things to many people. At a superficial level it is true that there have been many uses of the term and that it has many meanings in common usage, but just as this does not disqualify other useful terms in the social sciences it need not disqualify wellbeing from being a practical concept for policy purposes. There has been considerable recent progress in developing a concept of wellbeing in policy circles worldwide (see, for example, the New Economics Foundation, 2004; Layard, 2005; and OECD, 2009) and while there remain many points of disagreement there is much common ground.

3.1. A social wellbeing framework

In order to operationalize the framework for policy analysis we need a relatively simple definition of wellbeing and we adopt the parsimonious definition cited in the introduction. This acknowledges that wellbeing is a state that humans experience, but focuses on the conditions that must be in place for people to achieve wellbeing. Those are: that the needs of the person are being met, their valued freedoms are being achieved, and a good quality of life experienced. All three concepts are touched on in this definition: human needs, freedoms (or autonomy), and quality of life have vast literatures that debate their meaning and place in understanding the human condition and we cannot do justice to a review of these here (for a review of the literatures see Gough et al., 2007), but we argue that given the essential importance of each dimension to human wellbeing, then failure in any one of three dimensions can be considered to critically undermine the overall wellbeing of a person. The definition of human wellbeing advanced here is a hybrid that combines objective, subjective and intersubjective approaches to understanding human wellbeing that has been developed particularly for the study of situations where poverty is prevalent (where needs are often not met) and where the struggle for development is ongoing (where freedoms and quality of life are frequently under threat). It should also be noted that this definition does not define what wellbeing is in any particular society, but rather provides a framework which indicates that the set of needs, freedoms and quality of life conditions that contribute to the possibility of wellbeing are likely to be different in different geographical, societal and cultural contexts. The framework is universal but it does not overdetermine the local content of wellbeing.[3]

The common ground with much of the other contemporary work on wellbeing and happiness for public policy is that this definition is strongly founded on a subjective dimension. But it adds two further dimensions: the objective and the relational (see McGregor and Sumner, 2010). It seeks to take account of objective circumstances of the person, alongside the subjective evaluation, and thus does not entirely correspond to a subjective wellbeing or happiness conception (see Bruni and Porta, 2005). From this perspective, and in terms of the objectives of fisheries and development policy, a fisher who is not adequately nourished and is in a state of physiological decline cannot be described as experiencing wellbeing in the sense given here, even if they do occasionally experience happiness or feel good about their life and work.

But this social wellbeing conception goes further to add a relational dimension. It argues that we must take into account the ways in which both the objective and subjective dimensions of wellbeing are socially and culturally constructed through relationships in particular societal contexts (McGregor, 2007). The conception of wellbeing that we propose builds on a eudaimonic rather than hedonic conception of wellbeing (Ryan and Deci, 2001). This indicates that beyond basic human needs there are also social and psychological needs that must be fulfilled if a human is to achieve wellbeing. However, these social and psychological needs are constructed by us with others in society. They are guided by the meanings with which we live our lives and which enable us to live with others in society, and provide us with the yardsticks that enable us to comprehend whether we are living well, and also to assess the wellbeing of others (Seel, 1997). These meanings are an integral part of our sense of identity and must be central in any approach using human wellbeing that seeks to engage with policy. As we have understood from the anthropological literature, fishing communities tend to be characterized by strong identities and as such the social meanings that operate in fishing communities are seen as being particularly important for policy processes to take account of (Jentoft, 2000b, Kooiman et al., 2005).

The importance of socially generated meanings and this way of combining the subjective and objective dimensions of wellbeing is reflected in Amartya Sen's capability approach and particularly in his thesis on 'Development as Freedom' (1999). There he illustrates these points by noting that it is important to distinguish between a person who is starving involuntarily because of the lack of food and another who is starving because he or she chooses to do so out of religious or political conviction (ibid 292). The difference between the two lies in the meanings that each brings to their actions and assessment of their experience: one has the freedom to choose the action that result in the outcome and the other does not. As such they are each likely to subjectively experience their objective deprivation differently: the result would be quite different states of wellbeing.

Sen also argues that the promotion of human freedom is both the means and ends of development and this observation is a vital ingredient in any operationalization of human wellbeing. It provides a way of understanding the processes that relate the objective circumstances and the subjective experience of the person. But while Sen's capability approach has great strengths it has also been criticised for its weakness in dealing with a more social perspective on the nature of human agency (Evans, 2002, Robeyns, 2005, Deneulin and McGregor, 2010). The meanings that we generate and share in society guide us in what we can aspire to; what we think we can do to pursue these aspirations; and then also

[3] For results on what needs, freedoms and quality of life considerations matter for people in the Northeast and South of Thailand see McGregor et al. (2009).

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in how we subjectively evaluate our lives. In simpler terms these social meanings that we construct with others in society allow us to translate the things that we have and the things that we do into our experience of wellbeing.

This definition sees the state of wellbeing as an outcome that is continuously generated through conscious and sub-conscious participation in social, economic, political and cultural processes. This entails the adoption of a notion of 'habitus' as described by Bourdieu (1990). For conservation and development policy to engage with human wellbeing it must pay attention to the outcomes that people achieve and also to the processes in which they engage to achieve those outcomes.

The framework that is presented here is summarized in Fig. 1, below. This places the human being at the centre of the analytical schema; it identifies the three dimensions of human wellbeing and indicates that these are outcomes that are achieved over time, through relationships with others in the household, community and in wider social collectivities. In the case of fishers the relationship between the human being and the fishery resource is also important and is both direct and mediated through relationships with others.

Fig. 1 is similar to those presented by Pollnac et al. (2006), in their proposal for a social impact assessment framework for fisheries. In that article the authors present a number of modified diagrams to indicate the different factors affecting the wellbeing of different participants in the fishery. This is similar to the aim that is set for the social wellbeing methodology. Empirical research seeks to distinguish what the wellbeing outcomes and aspirations are for different sections of the community and also what different sets of relationships the different fishers are engaged in, that enable or constrain them in their pursuit of wellbeing.

3.2. A social wellbeing methodology

Strangely, although wellbeing is seen as a luxurious and somewhat uncomfortable concept by many development and environmental policy professionals it is an idea that is readily recognizable by most people in most societies across the world, including poor people. Research in a wide range of developing countries confirms that when you ask people "what do you need to live well in this community?" or "what is important for your quality of life?" they come up with a fairly comprehensive and thoughtful set of responses (Biswas-Diener and Diener, 2006; McGregor et al., 2009; Copestake, 2009). While money still features prominently in most responses to these questions in most locations, other answers that are commonly given indicate the high importance of aspirations for children and other family members and they also emphasise relational factors such as having good neighbours and a peaceful community. Results using this subjective line of inquiry repeatedly highlight that dimensions of peoples' lives that are not encompassed by narrow economistic approaches, and which consequently do not usually receive a lot of attention in standard development or environmental policy work, are important.

But, as suggested the quality of life or subjective wellbeing element of the framework is only one dimension of what needs to be understood. The definition of wellbeing that has been presented here underpinned the development of a new methodology for the

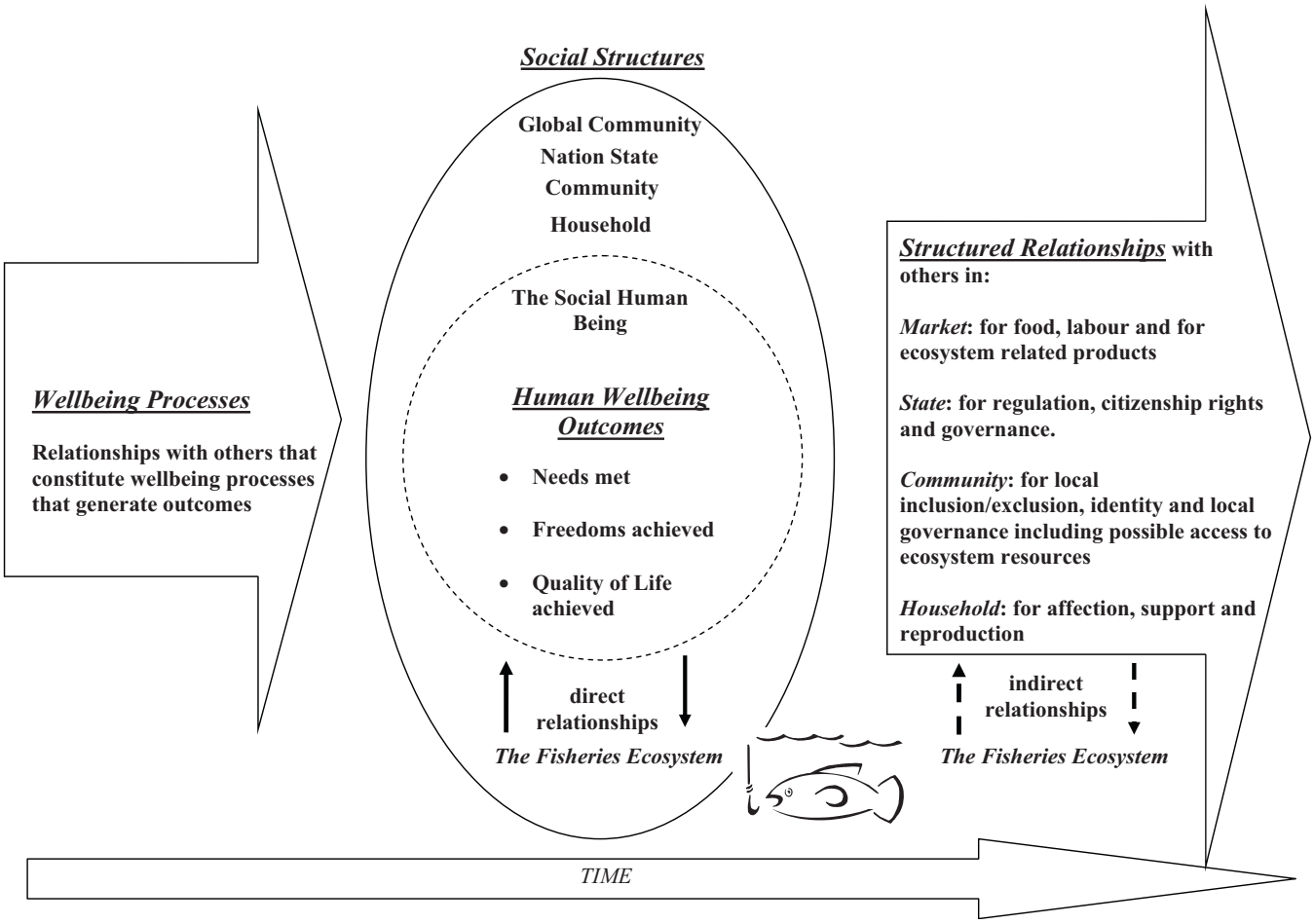

Fig. 1. A social wellbeing framework for fisheries.

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empirical study of the social and cultural construction of wellbeing in rural and urban communities in Bangladesh, Ethiopia, Peru and Thailand (McGregor, 2007). The methodology consists of six integrated elements combining quantitative and qualitative methods to explore three categories of information that correspond to different elements of the framework diagram: wellbeing outcomes; the relationships and processes that people engage in their efforts to achieve wellbeing; and the social structures that enable or constrain them in their efforts (McGregor et al., 2008). The outcome instruments can be used to produce a needs deprivation index; a resources index (as a proxy for freedoms) and a quality of life satisfaction and importance scores. These scores must be accompanied by and interpreted in light of the information produced by the structural analysis (micro and macro) and also from the qualitative work on what relationships and processes people engage in on order to produce their wellbeing outcomes.

What is important to grasp however is that the methodology constitutes a phased process which formally builds up a picture of local realities in terms of: the patterns of wellbeing outcomes are being achieved in the communities studied; what the salient aspects of societal organization and structures are shaping those wellbeing outcomes; and what processes different people engage in as they struggle to achieve their vision of wellbeing. The methodology and methods cannot be presented in detail here and but are described extensively elsewhere and analyses of other studies is now emerging in a range of publications (see McGregor et al., 2007; Woodcock et al., 2009; Copestake, 2009). It is also a work in progress with various research initiatives seeking to modify and develop the particular research tools to make them more appropriate for different policy and practice contexts. This includes in the 'Building Sustainable Governance Project' funded by the UK NERC, where the framework and some of the methods have been piloted for use in fishing communities in Sothern India and Sri Lanka. That work has included a re-analysis of existing cases of fisheries conflict using the wellbeing framing (Coulthard, 2009b; Bavinck et al., 2009).

There are four key observations that arise from the wellbeing work so far that are of particular relevance for fisheries policy analysis. The *first* is that is that there is more to people's lives than their livelihoods. The responses to wellbeing inquiries affirm that while people, and particularly those who struggle to survive and thrive, are concerned with their livelihood there is much more to their lives that matters to them than just the material aspects of their lives. As we shall discuss in the following section this is particularly germane for fisheries policy where fishing tends to be seen not just as a livelihood but *a way of life*. The *second* broad observation is that heterogeneity really matters in people's efforts to achieve wellbeing. In order to understand who succeeds and who fails in achieving good wellbeing outcomes it is necessary to understand not only the material assets or resources that people command but also their differential capabilities and position in society. The *third* is that the wellbeing approach provides a key observation on governance structures that is germane for understanding conflict around policy regimes. It reveals that the different visions and strategies for wellbeing that the different people hold and pursue are often not compatible with others. At its most extreme some of the ways in which some people pursue wellbeing directly or indirectly denies some other person or group of persons the possibility or means of pursuing their vision of wellbeing. This is not a new observation, but it is a new way of framing it. It reminds us that a key role for public policy and for governance regimes is to provide the societal structures that make it possible for us to live together well (Deneulin and McGregor, 2010). Thus systems of law and justice in most societies are usually designed to stop or limit the strategies and behaviours of some that are clearly likely to inflict harm on others. It is in this context that we can reinterpret fisheries prohibitions and regulations: we must always interrogate them to ask whose wellbeing do they favour?

Finally, the *fourth* observation is that human wellbeing is important for policy analysis because what human beings conceive of as wellbeing and how they think that they should pursue it is a primary driver of their decisions and behaviours (Kahneman et al., 1999; Deci and Ryan, 2000). Most public policy, including fisheries policy, seeks to induce or force changes in human behaviours and if it is to be effective in doing so then it is clear that it must engage with what people feel, think and aspire to achieve through their choices of action.

4. Social wellbeing, fisheries policy and governance

Looking at these observations in more detail we can now consider what the social wellbeing approach specifically offers to fisheries policy deliberation. Fundamentally, it argues that even where one is concerned with the conservation of a biological resource it is still necessary to place the social human being as the central focal point of policy analysis. Rather than pursue analyses that either focus on the fish or on narrow dimensions of fishers' behaviours, this approach indicates the importance of understanding fishing not just as an activity, nor just as a livelihood but as a *way of life* in which strong issues of social identity and relationship are at play.

McGoodwin comments, "Amongst the members of small-scale fishing communities who fish at sea, there is usually a profound pride in their occupational identity as fishers and a correspondingly high devotion to the fishing way of life" (2001: 2.5). This view that fishing is more than 'just a job' but a 'way of life' is frequently expressed by fishers, and has been well documented by a long history of study in fishing communities (Thomson et al., 1983; Acheson, 1988; van Ginkel, 2007). Being a fisherman invokes a strong sense of social identity and importantly establishes a sense of being in the world. As in many other types of community where there is a strong relationship between people and their natural environment, the fisheries sector is one that is replete with powerful social meanings which are ignored by development or environmental policy makers at their peril.

This observation is particularly apposite for the analysis of fishing communities in the fisheries crisis, since recognizing that fishing is an activity which is culturally and socially embedded in a way of life affirms that reducing fishing effort by simply taking fishers out of fishing is more challenging than a technical or economic analysis suggests. This is confirmed empirically by the widespread difficulty of imposing effort restrictions and more particularly by the resistance in fishing communities to policy or management approaches that are founded in the provision of alternative livelihoods. As has been well documented by research on job satisfaction—fishers often have a strong attachment to their occupation, which is driven by more than material benefits (Pollnac et al., 2001; Pollnac and Poggie, 2008). Even where those livelihoods strategies involve what at first glance appear to be similar activities such as aquaculture they have not been particularly successful (Sievanen et al., 2005). Rather than see the failure to accept or adopt alternative livelihoods on offer as irrational, the wellbeing approach provides a positive way of understanding fisher rationality. The identities to which fishers cleave and the diversity of relationships in which fishers are embedded are important considerations in better understanding why they make the choices that they make.

This emphasis on identity and its associated social relationships interacts with the insight offered by the wellbeing approach which is to highlight the practical importance of understanding heterogeneity. As we have already noted in fisheries studies, the

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analysis of differentiation has most usually been accounted for only in terms of wealth, fishing capacity or gear types, but the social wellbeing approach adds levels to our understanding of differentiation. van Ginkel notes "Different modes of production entail different social relations, rationales and motivations.... Factors like boat size, ownership structure, degree of indebtedness, number of crewmembers, variation in fish species, species pursued, technology and gear bring along differences in mental maps, cultural rules, practices, styles, goals and aspirations..." (2007:6).

These differences produce different patterns of relationship which then affect ability and willingness to respond to new policy and management regimes. Thomson and his co-authors, in their study of British fishing communities, make a similar point, "Fishing as an occupation does not automatically push men towards a single, simple view of life. On the contrary, it pulls in very contradictory directions" (Thomson et al., 1983:4 cited in van Ginkel, 2007:6). The wellbeing approach provides a framework for understanding the significance of this kind of difference for fisheries policy.

In an early application of the wellbeing framework to the study of fishing communities in Tamil Nadu, Coulthard found that differential position in the caste driven, traditional fisheries management regime (the Padu system) produced variable capacity to respond to environmental changes (Coulthard, 2008). This study illustrates the kind of counter-intuitive insight that the wellbeing approach can produce which is important for policy. In this case, it was the wealthier, more powerful members of the community that were less able to adapt to environmental changes (and *inter alia* were resistant to changes in the management regime), because they were so deeply culturally invested in the maintenance of the Padu system. The strength of the attachment of some to the Padu system is well illustrated by the common saying amongst Pulicat fishermen: "*a man may leave his wife but never his Padu space*" (Coulthard, 2008:486).

The approach also allows us to explore the extent to which different wellbeing aspirations and the strategies adopted to achieve them might lead to conflicts over potential fisheries management regimes and their implementation. For example, the response to a conservation management regime of fishing households that aspire to generate enough income from the fishery in order to enable their children to escape from fishing is likely to be quite different from another fishing household that aspires to maintain their fishing as a way of life which they value. Put in a different way, the wellbeing methodology provides ways of eliciting insights into what different people in the fisheries are aspiring to; what resources they have at their disposal to formulate a strategy in pursuit of wellbeing; and what relationships and processes in their societies are important for their achievement of their present level of wellbeing and its maintenance in the future.

From this perspective a key way to reinterpret fisheries policy is to see it as providing the institutional arrangements to settle wellbeing conflicts. This fits very well with the interactive governance approach that has been advanced for fisheries by Kooiman, Bavinck and others (Kooiman et al., 2005). Fisheries conflicts are founded in conflicting wellbeing aspirations and imperatives and then in the interactions between these different humans and the fisheries ecosystem upon which they depend. The conflicts that we witness in fisheries are indicative of governance systems that are currently inadequate for their purpose. As with the interactive governance approach the wellbeing framework indicates the need to establish an interactive process to construct governance, in which the wellbeing priorities and aspirations of the different stakeholders are systematically taken into account. The difficult aim is to produce institutional arrangements that enable sustainable exploitation of the resource and which encourage the accommodation of different wellbeing strategies, without a breakdown on the part of any aggrieved or excluded group into violence. This will of course entail some 'hard choices', but given our pre-stated concern for the reduction of poverty we can also add that these solutions should be consistent with broader principles of social justice and should demonstrate particular concern for those sections of fishing communities that are already experiencing deprivations and for whose other options are limited.

5. Conclusion

This paper has proceeded on the implicit understanding that some form of conservation policy is likely to be necessary if irremediable damage to fisheries ecosystems is to be averted. It also recognizes that fisheries ecosystems are important for poor people in developing countries. However the success or failure of the governance arrangements is dependent on the responses that fishers and fishing communities have to the conservation policies that the governance system formulates and seeks to implement. The social wellbeing framework has been elaborated as a complement to other forms of analysis so as to better understand the relationships between the key players in the fisheries crisis and their interactions with the natural environment.

The analysis thus far suggests a fairly basic equation: that wellbeing losses plus threats to a way of life added to a sense of injustice result in conservation policy failure. The social wellbeing approach provides researchers and policy makers with a framework to explore the intermix of interests and constraints of different actors who relate to the fishery, and as such a possible basis for the design of the institutional arrangements of governance so as to secure greater legitimacy and compliance for policy. The approach, we contend, can assist fisheries policy analysis in not only better identifying who are the 'winners' and 'losers' from proposed policy changes but also identifying which losers might be likely to react in ways that will make policy or management unworkable.

The approach brings us to the conclusion that all conservation policy changes entail trade-offs between the wellbeing interests of different groups and individuals that are dependent on fisheries ecosystems (cf. Hicks et al., 2009). What it adds is a way of identifying what some of these key trade-offs might be and of making the basis of the trade-offs more transparent. Trade-offs can occur at different levels, for example between global concerns for conservation of endangered marine species and local concerns of livelihoods and survival through the use of those species as a resource (see Mackinnon, 2007 for a particularly severe conflict between poor fishers and turtle conservation in India). Trade-offs at the local level become visible if we attend to the varied capacities of different people to cope with changes in the fishery, or to take advantage of new opportunities as they arise (such as eco-tourism). And, of course, the issue of sustainability highlights trade-offs across time, but the detail of this dimension is made less general by recognizing the way that these interact with differentiation. In particular, a wellbeing approach emphasizes that there is both a moral and pragmatic need to pay attention to the wellbeing aspirations and strategies of the poorest and most vulnerable groups who tend to lack the power to be taken into account in most formal or technical analyses of fisheries management options. Their options in the face of an orthodoxy that does not or cannot take account of the constraints that bind them are everyday forms of resistance (Scott, 1985) which can add up either to conservation policy failure or to them being further excluded and impoverished.

The wellbeing framework engages with the systems of meaning and values that underpin people's actions and options for action and as such it explores the ways in which trade-offs are

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underpinned by value system clashes. As Kooiman and Jentoft point out, some of the trade-offs that are entailed in fisheries management decisions result in 'hard choices'. According to their definition, "Hard choices are those where basic values at stake are incomparable, incommensurable and incompatible" (2005: 293). As such they cannot be resolved by reference to scientific evidence or a claim to superior rationality. They can only be resolved by systems of governance that permit or enable open processes of negotiation between the value systems involved.

The acknowledgement of deep heterogeneity in fishing communities indicates that there are likely to be different responses amongst fishers to conservation measures and that these are likely to be founded in different wellbeing visions and strategies amongst fishers. This observation points to the limitations of some of the more naïve 'community based' approaches to natural resource management (Mehta et al., 2001), because it highlights that there are important differences in status and power both within fishing communities and amongst a wider range of actors exploiting developing country fisheries.

Increasing wellbeing in fisheries thus necessarily involves considerations of the distribution of power in fisheries. Unilateral imposition of governance instruments by state authorities, no matter how well intentioned, is an exercise of power. By placing wellbeing at the forefront of governance strategies, agents of change must ask whether their actions will raise wellbeing throughout the population and in a socially just fashion. Determining the answer will require not only consideration of the perspectives of the diversity of groups involved but also participatory structures of governance that are able to elicit their participation.

Of course, the fisheries literature is replete with examples of participatory mechanisms of fisheries governance (Wilson et al., 2003; Gray, 2005) and the evaluation of their success is hotly debated and heavily influenced by interpretation and context (Jentoft et al., 1998; Helvey, 2004). But the separation of participatory fisheries governance arrangements from other and broader systems of governance is also highlighted as a problem. Just as the wellbeing approach highlights the weakness of trying to separate fishing activity from other aspects of peoples' lives, it equally makes little sense to separate the governance of their fishing activity from the governance arrangements for those other aspects of their lives.

In a global analysis of efforts to re-build fisheries, Worm et al. (2009) discuss the mixed bag of successes and failures. Important elements of success, they ague, include community-based management and combining management tools, such as catch restrictions, gear modifications, and closed areas. However, they equally recognize the challenges of short term costs to fishers, which can create strong resistance against management intervention. Claimed successes are only as good as the tool used to evaluate them and different tools can reveal very different outcomes for different people. A social wellbeing approach has potential to offer a much more holistic view of the societal impacts of different governance regimes, to better inform our interpretation of governance success and failures.

Our final point rests on whether fisheries scientists and policy makers will embrace new ideas on how to look at poverty in fisheries. In her recent review of the poverty-conservation debate, Roe (2008) describes the turbulent history of the two agendas, which seems to oscillate between periods of convergence and divergence, collaboration followed by backlashes and claims of hijacked agendas and the prioritization of one over the other. In fisheries, fish and people are too connected to try to separate and prioritize, and it is these connections which need to be better understood and worked with in governance. As Worm et al. (Worm et al., 2009:584) advocate, "We envision a seascape where the rebuilding, conservation, and sustainable use of marine resources become unifying themes for science, management, and society". A social wellbeing approach can contribute to this process by facilitating the recognition of the 'hard choices' that lie ahead for fisheries governance. This does not mean that hard choices are made easier, in fact the approach highlights profound nature of some of the challenges, but we contend that better informed governance systems and processes that are able to focus on the wellbeing of fishers may have the capacity to produce more effective policy decisions towards achieving fisheries sustainability.

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