Exploring wellbeing in fishing communities

Methods handbook

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1. Introduction

Why focus on wellbeing in fisheries?

The idea of ‘wellbeing’ is already centre-stage in many realms of policy and practice around the world. Spurred on by the Stiglitz commission, which critiqued the over-reliance on economic production as a measure of social progress, and called for a “shift in emphasis towards measuring people’s wellbeing” (2009,p.12), the concept of wellbeing has received growing recognition as a new approach by which to understand the quality of life that people can achieve, based on a much broader set of considerations. As a result, there has been a recent explosion of frameworks by which to conceptualize and measure human wellbeing. For example the OECD ‘How’s life’ framework (2013,) lays out 11 criteria by which to measure wellbeing\(^1\), whilst in the UK, Oxfam’s Human Kind index\(^2\) is currently being used as a new measure of prosperity in Scotland using criteria based on consultations with the Scottish public about what matters most to their quality of life. In the context of the environment, the Millennium Ecosystem Assessment\(^3\) clearly set out a conceptual framework to assess the ways in which ecosystem services relate to human wellbeing using 5 criteria (security, basic material for a good life, health, good social relations, and freedoms and choice) drawing from Narayan’s seminal work on participatory poverty assessment (Voices of the poor\(^4\)).

These developments are both relevant and useful to fisheries and coastal management. Understanding how human wellbeing relates to the way people use, and depend upon, coastal resources, gives rise to new interpretations of human behaviour and better appreciation for the important roles that the environment plays in the construction, and denial, of human wellbeing in its broadest sense. It follows therefore that framing the many challenges of natural resource management through a lens of wellbeing, can create an opportunity for doing things differently, and potentially better.

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1\(^{\text{http://en.wikipedia.org/wiki/Wellbeing}}\) The OECD’s list of wellbeing domains: health, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, subjective wellbeing, income and wealth, jobs and earnings, and housing

2\(^{\text{http://policy-practice.oxfam.org.uk/our-work/poverty-in-the-uk/humankind-index#contentprimary_0_ctl00_FirstTab}}\)

3\(^{\text{http://www.unep.org/maweb/en/Framework.aspx}}\)

In the context of fisheries decline, Coulthard (2012) argues that a ‘wellbeing approach’ could contribute to the goal of sustainability in two ways: first, by providing a deeper form of social impact assessment, capable of illuminating some of the social and psychological impacts of fisheries loss on affected communities, recognizing that these factors are often overlooked and usurped by economic and biological assessments (Symes and Phillipson 2009, Urquhart et al 2011). Second, it may give new insights into fisher behaviour, if behaviour can be understood as the pursuit of wellbeing for the fisher and his or her family, and the social values and meanings that frame fishing as an occupation. These two assessments of wellbeing – the extent to which it is experienced, and how the pursuit of it might shape behaviour, are different but closely connected. The former considers wellbeing as a measurable outcome for people; the latter recognizes wellbeing as a process, which emphasizes what people do, and the choices they make, in their pursuit of wellbeing outcomes (McGregor et al 2007, Coulthard 2012). Underlying these debates is the implicit assumption that people do actually pursue wellbeing for themselves and their families and that this serves as a key influence on their behaviour [Deci and Ryan 2000, McGregor 2007].

The assumption that people pursue wellbeing is a defining feature of a wellbeing perspective, and is based on the argument that people, even those living in dire circumstances with very little, are still conscious of how they are doing in life and have some capacity to achieve elements of wellbeing as they perceive it (McGregor 2007). This focus on what people can have, do and feel, rather than only what they lack (through poverty analysis for example) is arguably a more rounded and respectful approach (McGregor and Sumner 2009, White 2010), which doesn’t define people through their poverty alone, but sees them as actors capable of some degree of choice and action (agency) in how they live their lives (Sen 1999). This assumption is significant for fisheries management. As Coulthard (2012) argues “If we frame what people do, and how they pursue their aspirations in terms of wellbeing, it broadens the range of motivating factors that become visible to us, as resource managers, who seek to understand and influence peoples’ behaviour”.

\[5\] McGregor et al (2007) outline how these two assessments – outcomes and processes - represent two distinct ways of thinking about ‘the person’ in social science literature. Outcomes, place emphasis on ‘beings’ - what a person can be – relating to welfare outcomes, life satisfaction and happiness; Processes, on the other hand, emphasize ‘doings’ - the freedoms and rights which people experience (or are denied) to make choices about how to live their lives, and what they are capable of doing with those freedoms, as articulated in Amartya Sen’s discussions on Capabilities (see Coulthard 2012 for further discussion).
A 3-dimensional assessment of wellbeing

The framework for wellbeing, on which this methods handbook is based, defines 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, see also Coulthard et al. 2011).

In this definition three inter-related dimensions are taken into account: i) a material dimension which considers the tangible (and objectively verifiable) resources a person has and the extent to which his or her basic human needs are being met; ii) a social/relational dimension to address how social relationships enable, and/or restrict people in their pursuit of wellbeing; and iii) a subjective dimension which takes into account how people think and feel themselves about the quality of life they achieve (McGregor 2007; McGregor 2009).

These can be broken down into three basic categories:

1. what a person has
2. what they can do with what they have, and
3. how they think and feel about what they have, and can do (see McGregor 2006:4)

Importantly, this framework therefore considers both objective and subjective aspects of wellbeing – i.e what people have in an objective sense (the resources they have, and how they employ those resources to meet their basic needs), but also to understand how people themselves evaluate what they have, and their achievements (their own subjective evaluations about their quality of life as they see it). As McGregor et al (2015) point out, these self-evaluations are likely to be as, if not more, important for understanding why people act in the ways that they do. This speaks to a growing consensus as to the importance of combining both objective and subjective accounts of wellbeing (UN 2012). For example, if a person has ample material resources but feels dissatisfied with life, suffers from depression, and is without any meaningful social relationships, we cannot say that they are well. Similarly, if a person is objectively poor so as to fail to meet the basic needs required for human living and dignity, and yet self-reports themselves as doing fairly well, for example through the capacity of humans to adapt to live with dire circumstance, it would be unjust to simply accept their interpretation of wellbeing without challenging it. This point has been argued extensively by Amartya Sen and others through debates about ‘adaptive preferences’ and forms a core criticism of approaches which seek to measure

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6 What Qizilbash (2006) calls 'The adaptation problem' refers to the observation that people living in difficult circumstances often learn to cope, through necessity, by suppressing (adapting) their aspirations, hopes and
wellbeing based on subjective accounts alone, such as in many happiness studies (see Teschl and Comin 2005 for further discussion).

What is distinctive about the 3D wellbeing approach that we use here is that, in addition to objective and subjective dimensions, it also highlights the role of the social, through its inclusion of a specific ‘relational wellbeing’ dimension. Social relationships are enormously influential in both achieving and denying wellbeing, and defining human behaviour and decision making, and yet they are relatively overlooked in natural resource management. Bringing these 3 dimensions – objective, subjective, and relational wellbeing together, gives a more complete and multi-dimensional view about the nature of wellbeing and its determinants, and a powerful lens through which to understand human-environment interactions.

White (2009) usefully captures these dimensions diagrammatically in Figure 1:

**Fig. 1. The triangle of wellbeing**

![Diagram](image)

**Material wellbeing** – what people *have*, or the objective outcomes of wellbeing. This includes material resources such as food, income, assets, shelter, employment, access to services and natural resources, and environmental quality. Within this domain, basic welfare standards are also considered through the assessment of whether an individual’s ‘*basic human needs*’ are met or denied, using objectively verifiable indicators.

**Relational wellbeing** – what people *do*, and how they interact with others, to meet their needs and achieve a good quality of life; and also how relationships can inhibit wellbeing. This focuses on interactions with others: relationships of affection, relations with the state, social institutions, rules and norms which can dictate access to natural resources, forms of collective action, aspects of conflict and security, law, cultural and political identities, and preferences, and this affects how they self-report their quality of life. As Sen (1999:62) argues, this can result in people subjectively reporting themselves as having greater wellbeing than would be objectively observable, and resigning themselves to their condition.
relationships of power. In this handbook, we are particularly concerned with how relationships affect interaction between people and marine resources, and the influence of social relations on fishing behaviour.

**Subjective wellbeing** – is concerned with people’s own *(subjective)* views and how they *think* and *feel* about their situation, and pays attention to people’s *values* which shape those views, their *aspirations*, *hopes* and *fears*, and *(dis)satisfaction* with what they have achieved. Importantly, White (2009) places the subjective at the apex of the wellbeing triangle because, as she argues, the meanings of the other dimensions (material and relational wellbeing) are derived through the values and interpretations of the people themselves, and how they think about it.

**Context** - Wellbeing is ultimately shaped by external context, which includes prevailing socio-economic conditions, historical, cultural political and environmental factors.

**Using the 3D framework in practice.**

The methods presented in this handbook seek to operationalize a 3D concept of wellbeing to generate new knowledge and insight which can inform managers, policy makers, and communities themselves, about the nature of social wellbeing amongst people who live at the coast, and those who derive some element of wellbeing from coastal resources. The starting point for the development of these methods was an existing set of tools generated by the ESRC funded *Wellbeing in Developing Countries* research group (WeD, University of Bath UK) who, over a 5 year period of empirical research (2002-2007), produced a conceptual framework and associated range of generic methods to research wellbeing. These methods have since been trialled and adapted to the context of researching wellbeing specifically in fishing-dependent communities in India and Sri Lanka, as part of the ESRC funded *Wellfish* project (see Coulthard et al 2014 for more detail). Each method described in the following manual clearly maps on to a component of the 3D conceptual framework (see Fig. 2):

- **Section A - Community profiling** provides a set of tools to establish the context in which the study is being conducted. This should be done early on in the study, and the results should feed into subsequent methods (such as survey or questionnaires) to add a context specific dimension to the data collection.

- **Section B – Material wellbeing** is assessed through *Household Resource Profiling* and the *Basic Needs Survey*, which explore the range of resources each household can draw upon to meet a basic minimum level of human welfare

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7 For further information on the WeD methods toolbox, see www.welldev.org.uk/research/methods-toolbox/toolbox-intro.htm
• **Section C – Relational wellbeing** – tools described in this section help to identify *social relationships* that are important for coastal specific livelihoods, and wellbeing more generally, and captures the role that each relationship plays in the construction, or denial of wellbeing through an assessment of satisfaction with relationships.

• **Section D – Subjective wellbeing** – The Global Person Generated Index is a tool which captures the respondents own perspective on what matters most for their wellbeing and how satisfied they are with lives according to self-determined criteria (*subjective wellbeing*).

**Figure 2 Operationalizing the 3D wellbeing framework**

Each section of the handbook gives a detailed overview of the method, and is accompanied by a real-world example of its application from fieldwork in Sri Lanka.
Research ethics – a note

Any research requires ethical consideration prior to commencement. This is particularly the case in wellbeing research where interviews will often involve discussing sensitive and often difficult areas of people’s lives. **It is expected therefore that any research using these methods will undergo a process of formal ethical approval in its planning stages.** The researcher should ensure that respondents give **informed consent** and are able to **participate freely** (and withdraw from the interview at any time); that data is **confidential** and whenever possible **anonymous**; and that **harm** (physical and emotional) to both the participant and researcher is avoided. This latter point requires careful consideration, and re-evaluation, throughout the research process. Interviewers must be considerate to respondents’ feelings in cases where the discussion leads to sensitive and emotional topics (as it often the case in wellbeing interviews) – for example, the respondent should not feel pressured to give information on particular points and, if the respondent becomes upset, they should be given the opportunity for a break and reminded that they can withdraw from the interview at any time, should they no longer feel comfortable. Importantly, this re-assures the participant that **they**, and not the interviewer, are in control of the information that is discussed in the interview. In many cases, participants wish to continue, despite being upset, as it is a matter that they deem important to highlight and discuss. Equally important is to avoid harm to researchers using these methods – discussing wellbeing can be emotionally draining and all researchers should be regularly consulted about their experiences, and be able to feedback to research leads with any problems or concerns they may have (see also the ESRC ethic guidelines).8

**Box 1. Illustrative example of information that should be given to research participants to ensure informed consent and free participation:**

**Information for respondents:** This interview is part of a project run by [xxxxx], which is investigating quality of life amongst fishing communities in [insert country]. Our aim is to understand more about life in fishing communities here, especially how people relate to marine resources, the sorts of things that people need to live well, and the quality of life that people in fishing communities can experience. We also are investigating the major changes in fishing that have occurred over the years and documenting how people have been affected by change.

**Informed consent:** The interviewer will ask you a series of questions about your general life and work, and also on how satisfied you feel you are in certain areas of life. All information gathered is confidential and will only be used for this research. The identity of the respondents or households will not be revealed to anyone. You are not obliged to participate, and if you feel uncomfortable at any stage about answering a question, please let us know and we can stop the interview, or miss out the question. You can withdraw from the interview at any time.

**To the interviewer:** the above statement of confidentiality was read to the respondent and the respondent has agreed to participate in the interview. Please tick the box

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8 [http://www.esrc.ac.uk/about-esrc/information/framework-for-research-ethics/](http://www.esrc.ac.uk/about-esrc/information/framework-for-research-ethics/)
Community profiling

Aim: to set the scene, and compile information about relevant social, economic, political, historical, cultural and environmental factors

Techniques: Key informant interviews; small group discussion; participatory mapping; secondary data (census data and existing reports)

Types of data: (please note that the data examples given below are tailored to fisheries / coastal research, and would require adaptation to other research topics)

- **Physical/ environmental data:** marine species availability (local and universal names), what is caught and where, what are important ecosystem resources (marine resources, forest resources); who uses these resources?

- **Mapping of land use/ where are resources located?** Environmental and non-environmental resources, and also key services (transport, schools, hospitals, shops, markets, boat makers, landing sites, ice house, storage facilities)

- **Description of Population:** who lives in the area, population change (Census data), what do people do (major livelihoods); main types of fishing (who fishes where and how do they fish (main gear types) [see Box 2 Fishing profiles]; where and how are fish bought and sold?)

- **Institutions:** An inventory of all forms of social organization and their main functions [fisheries related, administrative, religious, government, non-governmental & charities]

- **Variability:** Seasonal calendars – periods of resource abundance, lean periods, seasonality, important annual events, such as festivals and holy days,

- **Historical events:** Historical accounts of key events, e.g. environmental shocks (cyclones, tsunami), important conflicts, political changes, also good changes e.g. building of hospital or new fish market. [see Box 3 for an example]

- **Wealth profiling** – who is doing well, who isn’t doing well – key characteristics of wealth and poverty, main areas of poverty/ wealth

- **Trends and changes:** Assessment of major changes and trends in the area e.g. changes in society, the fishery, environment, technology, standard of living, how people are with each other etc...

- **Participatory discussions of ‘subjective’ wellbeing:** Group based discussion on how people perceive what’s important for living well in their communities, and how
wellbeing/ and illbeing are symbolised in the local context. The method has also been extended in recent research to explore changes in Wellbeing and how different people have been affected (see Abunge et al 2013, and Daw et al 2015). This data helps to set the scene for more in-depth exploration of wellbeing through interview. It can also provide a useful overview of key elements of wellbeing and social change, in cases where research funds cannot extend to individual and household level interviewing [see Box 4].

**Box 2 – Identifying fishing profiles**

Fishing strategies are often highly complex and can include various types of gear according to season and work availability. Information from key person interviews helped identify 13 different combinations of fishing techniques or ‘fishing profiles’ based on gear use, boat type and position (owner or crew) in a Sri Lankan fishing village. These profiles were then used in the sampling strategy (quality of life interview), throughout the data analysis, and were verified in the resource profiling household survey.

For example, in Rekewa lagoon (Sri Lanka), many fishermen fish as a boat owner small ‘1 day’-boat and, in the lean season, will serve as a crew member on a larger ‘multi-day’ boat, and occasionally as a beach seine crew, when times were really tough. Establishing the variation in livelihood activities over (at least) a single year gives critical insight into how a household can cope with resource scarcity and other shocks and stresses. Whilst key people may not know exactly how each fisher fishes (this data is only available through household survey), he/she will be able to give generic information as to the sorts of fishing strategies in use, and their various combinations.

**Box 3 – Historical events calendar**

Example of a time line, established by a small focus group of villager elders in Rekewa Lagoon, Sri Lanka.
Box 4. Facilitator instructions: Participatory exploration of subjective wellbeing

**Technique:** Focus group discussion (around 4-6 persons); You will need flip charts and sticky notes if available, and if appropriate e.g. the participants can read and write. Where participants are illiterate, the exercises should be done verbally, possibly with picture cards.

**Notes on facilitation:**

- Two people should run the focus group – i) the facilitator (main person who chairs the session and facilitates the group discussion) and ii) the facilitator’s assistant – to take backup notes, make observations, to assist the facilitator where necessary. A 3rd person (translator) may also be necessary in some cases.

- Wherever possible, try to work with ‘naturally occurring’ groups of people, who work together, or are friends /neighbours (for example). Discussion tends to flow far more easily if people feel comfortable with one another. Randomly selected focus groups are not necessary here, since the aim is to reveal context specific ideas about wellbeing amongst research participants who live at the research site, in order to help frame and inform subsequent research. It is not to generate generalizable data about how groups perceive wellbeing per se.

- Avoid large differences in rank, or power, within the same group e.g. a boat owner and crew member, as you will only get the views of the more powerful participants.

- When asking questions, ensure you probe people to explain why they choose a particular response.

**THE GOLDEN RULE:** As much as possible, keep to the wording of the question as it is written in the guide. If it is not at first understood, try repeating the question, giving people a bit of time to think. Spend some time as a research team prior to entering the field, to agree how you will define and translate the term ‘wellbeing’. For example, ‘living well’, ‘living a good life’, ‘doing well’, ‘being well’, ‘having wellbeing’ – all have slightly different connotations that can make translation difficult. Ensure that all researchers have the same understanding and way of expressing wellbeing before the start of the exercise.

**Example questions**

**Section 1 Exploring general perspectives about wellbeing**

**Qu. 1.** How would you describe, in general, a person that is doing well in this community?

**Qu. 1b.** How would you describe, in general, a person that is not doing well?

*Notes for facilitator: We use this question as a general ice-breaker, and to get people thinking about how they perceive wellbeing in their wider community. Ensure this is discussed in an abstract sense, rather than relating to actual people, or each other. Prompts might include:*

“what would he/she have, do, what sort of person would he/she be, what might others feel towards that person”?
[Box 4. Facilitator instructions: Participatory exploration of subjective wellbeing (cont...)]

Qu. 2. In your life here as [fishers], what do you need to live well in this coastal community (and why)?

Additional guidance “We would like you to think more specifically about what is important for people like you, as your group of X fishers/ sellers to be able to live well here. These can be things you need to have, things you need to be able to do, the sort of person you need to be, people you need to know, information you need to know etc…”

RECORD LIST ON FLIPCHART: Discuss as a group and try to agree on which aspects are important – to be written on cards by the facilitator.

Notes for facilitator

As soon as an item is agreed by the group, write it down and place it on the clip board so it is easily visible to the group.

As each item is agreed and placed on the board, ask the group to explain why they chose it/ why is it important for wellbeing. Ensure these reasons are carefully recorded.

Section 2 Assessment of changes in wellbeing

Qu.3. What are the key changes/ trends/ or particular events that have occurred over the last 10 years that have affected your ability to meet these wellbeing criteria (these can be positive or negative aspects)

The facilitator should again refer the participants to the list of wellbeing components derived in question 2. Additional items of wellbeing may also come up in discussion – in which case, these can be added to the list (but make a note that these are additional items). The participants may want to discuss other key events that don’t relate easily to wellbeing items listed, which is also fine.

MAKE A LIST OF THE KEY EVENTS

After 5-6 minutes introduce this PROMPT: What about changes in the ‘fishery’ e.g. community closures, market changes, community changes, policy change etc...

This prompt encourages participants to focus more specifically on the fishery. Up to this point, we have been discussing wellbeing in general (of course many fisheries related items may have already been mentioned, which is to be expected (in a fishing community).

Qu.4. Do you feel that life (for people like you, or for your group) is getting better or worse? Why?

Qu.5. Reflecting on each of these important changes / events (that you have come up with)...in the community (as a whole), have people been affected differently?

If so, who has lost out, who has gained from these changes?

Refer the group to the LIST made in Qu. 3.

(You may want to probe further and ask the impacts it has had on the community as a whole).
Section 3 The linkage between the coast and wellbeing

Qu.6. Let’s talk about the fishery and the coastal area 10 years from now...How would the fishery look for your group to be doing well (in order to meet your needs as a group)?

Note to facilitator: Use prompts here e.g. 2-3 pictures, but encourage them to suggest more things, which can be either verbally expressed, or drawn / written

Prompts: What sort of people would you want to be fishing (e.g. young, old, migrants, local people, women, men, ethnicity, status (well off or poor)?

Qu.7. What would you be doing in this picture? (where would you like to be, what would you like to be doing in this ideal fishery?)

Qu. 8. Referring to this future fishery (they have described), what needs to happen for this fishery to come about? – open discussion. What might prevent this fishery coming about?

Note to facilitator: This question is to elicit their views of the main opportunities and constraints they face in moving towards their vision of a future fishery.

[See Daw et al 2015 for more detail on more visual participatory methods which use this line of questioning]

Closure – thank the recipients, take contact details so that the group can be formed again at a later date, give opportunity for people to ask questions to you.

If appropriate, facilitators may want to return to a question to clarify a response or ask a ‘closing’ question (e.g. “What else would you like us to understand about wellbeing in your community?” “Is there anything else we should have asked you?”)
Material wellbeing – the Resources and Needs Questionnaire (RANQ).

The aim of this method is to ascertain the resources people have access to, and whether their basic human needs are being objectively met, or unmet, with those resources. This is administered using a Resources and Needs Questionnaire (RANQ), which operates at the level of the household (administered to the household head). In most cases, the household head is male and there are clear research limitations when he alone is questioned about basic needs for the entire household. Both senior men and women in the household should therefore be included in the survey to get a more accurate picture of needs met/ or denied, especially when discussing needs such as food security, water quality, social participation, and personal security, which will often result in gender sensitive responses.

*Note: This is a (fisheries) adapted version of the RANQ which would require further tailoring pending on specific research interests. The original (and more generic) RANQ survey was developed by the WeD programme; details of its application can be found at the following website (see also McGregor et al 2007 and Woodcock et al 2009). [www.welldev.org.uk/research/methods-toolbox/ranq-toolbox.htm](http://www.welldev.org.uk/research/methods-toolbox/ranq-toolbox.htm).*

The RANQ questionnaire:

1) Documents the **resources a household has access to** [See Box 5] and

2) Objectively assesses **whether the needs of that household are being met** [See Box 6a and 6b]

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**Box 5: Data on household (HH) resources could cover the following areas:**

- **Household organization:** who lives in the HH (gender, age, marital status; highest level of education, main and other occupations, place of birth; no. of children; religion and caste),

- **Detail of fishing occupation:** age started fishing; periods of absence from fisheries (and reason); boat and gear access (ownership, shared, rented); type and amounts of boat and gears accessed; activities as crew member; what species are caught (when are they caught /seasonality {this info. can be collected as part of community profiling and the development of fishing profiles})

- **Fisheries dependency:** the proportion of income and food that comes from fishing; other sources of income to the HH and who earns what; additional training or skills

- **Market:** who buys the fish; where is it sold (per species caught)

- **Assets:** Does the HH own any land; home ownership; does the H own list of *locally relevant* assets (e.g. cow, goat, chickens, trees for firewood; motorbike, other wealth indicators etc...)
Assessment of whether human needs are being met:

A Theory of Human Need

According to the WeD definition which frames our methodology, the first component of wellbeing arises where human needs are met. We base our assessment of needs on the ‘Extended theory of human need’ (Doyal and Gough 1991, Gough 2003), which assesses quality of life according to an establish criteria of basic human needs. Human needs are universal (needed by everyone) and must be met if the person is to avoid sustained and serious harm. This distinction of harm is important, because it provides an absolute minimum threshold, which all people require to live a humane and dignified life. The power of framing Material Wellbeing in terms of basic needs is that it provides an ethical basic minimum level of welfare, which all governors can/should commit to protecting and providing in society. It is also universal, which means that all people, everywhere, should have access to this same list of basic elements of wellbeing. The ways in which needs are met are, of course, context specific and will vary according to place and individual.

Box 6a: The list of Human Needs

(Note: this list has been further adapted from the original Doyal and Gough theory)

1) physical health and appropriate health care,
2) ‘Freedom of agency’ - freedom to make one’s own decisions in life, and act on them
3) adequate nutritional food and clean water,
4) adequate protective housing,
5) to live and work in a non-hazardous physical environment
6) to have significant primary relationships,
7) to be respected
8) physical security, and security in childhood
9) economic security,
10) appropriate education, and
11) safe birth control and child-bearing (for women).
Developing Needs indicators

The assessment of whether a person is objectively meeting a human need can be quite complex. The approach explained in this handbook combined two perspectives:

1) people’s actual *experience* (asking them to recall when they had met, or were denied a basic need)

2) their *perspectives* on whether meeting a need would be possible in the *future*

This obviously relies on people’s own recollections and viewpoints (and therefore has a subjective element); further objective verification could be included by actual observation of what people do in particular situations, where research resources permit.

**Box 6b. Example indicator questions for specific needs:**

**Need: Economic Security**

*Experience*

During the last year, have you or any member of your household experienced an emergency or a major problem where you needed to borrow money?

Yes ☐ No ☐

*Action*

Were you able to borrow the money that you needed?

Yes ☐ No ☐

*Subjective assessment on future possibilities*

If, in the next year, you suddenly needed to borrow money for an emergency, how confident are you that you would be able to do so?

- It would not be possible ☐
- It might be possible ☐
- It would be possible ☐
Defining thresholds – at what point is a human need met, or unmet

Drawing from the THN, which provides universal categories for human needs assessment, the process of setting specific criteria to objectively assess whether a need is met, or unmet, takes account of social and cultural context. Table 1 illustrates the outcome of discussion with fishers and academics in Sri Lanka which established locally relevant criteria/indicators by which needs could be defined as being un-met. Using a baseline threshold of ‘harm’ for each needs category, a set of conditions were agreed upon when, if materialized, we would reasonably expect that a person would experience significant harm. Hence, our understanding of harm thresholds emerges from a consensus generated by people living in the same social and cultural context in which the study was located, but is structured by the universal categories of basic human needs provided by the THN (see McGregor, McKay and Velazco 2007 for a similar approach).

Case study – Sri Lanka

Table 1: Example of Needs Indicators developed for assessing human needs in Rekewa Lagoon, Sri Lanka (includes sub-sample data for illustrative purposes – those highlighted in red are discussed below)

<table>
<thead>
<tr>
<th>Needs category</th>
<th>Needs indicators:</th>
<th>% of sample with UNMET needs (n=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy security</td>
<td>No access to savings facility,</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>No access to credit in an emergency</td>
<td></td>
</tr>
<tr>
<td>Food security</td>
<td>Suffered a shortage of staple food over the last year</td>
<td>5</td>
</tr>
<tr>
<td>Safe drinking water</td>
<td>An UNSAFE drinking water source</td>
<td>0</td>
</tr>
<tr>
<td>Sufficient housing</td>
<td>A house that doesn’t provide protection from weather</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>A house that doesn’t provide security for persons and assets</td>
<td></td>
</tr>
<tr>
<td>Sufficient sanitation</td>
<td>No access to toilet facilities</td>
<td>0</td>
</tr>
</tbody>
</table>
| **Education** | Household members over 16 years age who did not receive a full 10 years of schooling (6-16)  
Children under age of 16 are not attending school | 80 |
|---------------|-------------------------------------------------------------------------------------------------|----|
| **Health**    | Having been ill/ injured and DID NOT receive treatment when needed (due to lack of availability, cost, or inadequate knowledge)  
Did not receive basic vaccinations  
If the HH has children but mothers did NOT receive any pre or post natal care | 15 |
| **Physical security** | Having been subject to physical violence | 15 |
| **Primary relationships** | Having NO ONE to go to for help with a problem  
Having NO friends | 0 |
| **Social participation** | Having no involvement in social organizations  
Having not participated in ANY community activities | 0 |
| **Respect** | NO ONE comes to them for advice or help  
Holds no positions of responsibility  
Having no involvement in household decision making  
Having no involvement in community decision making | 20 |

*(Illustrative) Interpretation of needs met and unmet:*

Whilst the results in Table 1 are based on a small sub-sample of the data, there are several emergent findings worth noting (highlighted in red). We can see, for example, a majority of households are reported as not meeting their basic need for *education*. Given the existence of free primary education for all in Sri Lanka and the availability of primary schools in the vicinity (CP1 2012), this result is initially surprising. However, within fishing communities, it is often documented that children skip school from an early age to start fishing with their fathers (Coulthard 2008, Maddox et al 2009), and this practice has sometimes resulted in an observably lower literacy rate in fishing communities compared with other occupational groups (George and Domi 2002). An alternative
explanation may of course lie in the setting of the indicator criteria – in that all household members need to show a minimum level of 10 years of schooling for the need for education to be met. Many of the older household members may not meet this need, given that access to schooling has increased over the last 20 years in Sri Lanka and there have been changes in social values around primary education (Ministry of Education 2011). Hence, our current indicator set may not reflect recent changes around the value of education, and may need to disaggregate between the total number of household members who lack primary education, and the number of children currently not in school.

The need for economic security, unmet by 30% of HH respondents is determined by two criteria – no access to savings and no access to credit in an emergency. Both criteria were deemed as being important to avoid harm and to achieve economic security, in the context of living with an unpredictable fishing income that is entirely dependent upon an unreliable catch. The need to access credit in an emergency is especially problematic. The lack of access to banking facilities among poor fishing households in particular, opens up space for fish traders and other middle-men to establish credit services in exchange for long-term secured fish catches, which frequently can lead to ‘boat tying’, a common practice in fisheries where a number of boats pledge their catch for a set price to a trader in return for a loan.

Interestingly, the need for social participation and significant primary relationships is met in all households within the sample, which may indicate the strong sense of community and social cohesion within fishing communities in Sri Lanka and more generally (Bavinck 2001), supported by a common identity and livelihood (all respondents are Sinhala and Buddhist fishers). For example, all respondents reported their involvement in temple activities, festivals and holy days, which provide important opportunities for social participation.
Governance relationship assessment (GRA)

The aim of the GRA tool is to assess which social relationships are important in achieving wellbeing, with a particular focus on how relationships influence (or govern) fishing behaviour. As such, the tool explores the role of relational wellbeing in fishing behaviour and decision-making. It does this in three stages: first, by exploring the range of relationships that the respondent deems to be important for their wellbeing ‘as a member of the fishing community’. We ask this in relation to fishing / coasts because we are specifically interested in the way that relationships affect fishing behaviours; (a broader approach could simply limit this question to relationships that are important for wellbeing in general). Secondly, the respondent is asked to rank each relationship in order of importance (top 5 most important). Thirdly, respondents are asked to self-assess and explain their levels of satisfaction with each of the most important relationships (in the top 5 list) by allocating a satisfaction score. The term ‘relationship’ is purposefully broad, and can include relationships with family, community, market contacts, boat crew members, government personnel – any person whom the interviewee deems as having a significant influence over their fishing behaviour and general wellbeing (see Fig 3: The Relational landscape tool).

INTERVIEW QUESTIONS

1. What are the most important relationships or interactions with other people that affect your life here [optional add: as a ‘fisher’ or ‘member of the fishing community’]?

Prompt: These can be people who might affect how you fish, where you go fishing, what you catch, and they can positive and negative relationships (some might be helpful, other might be unhelpful)

You can list as many as you want
For each, ask them to explain why they are important and take notes!

NOTE: Give 2-3 minutes to the person to digest this question, repeating the question if necessary. Note down any immediate responses – this gives the respondent chance to think openly about how to answer this, before we introduce the landscape diagram which helps to structure the discussion.

After a couple of minutes, show the respondent Fig 3 ‘The Relational Landscape’, designed to help structure the discussion about relationships.

Ask whether there are other relationships that are important to their lives as fishers, according to the criteria of the diagram (starting with the fisher’s family in the centre and moving outwards to include Relationships in the household; Peers; Fishing community, Wider community, and Institutions (what laws dictate fishing behaviour, informal/customary and formal).

For each criteria, list the relationships mentioned and why they are important.
2. Out of all these relationships, can you select the top 5 most important ones that influence your fishing decisions, with 1 being the most important? [Show/read the list back to the person, so they can choose]

3. Of these (top five) most important relationships, how satisfied are you with each of these relationships using the following scale?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>Somewhat dissatisfied</td>
<td>Satisfied</td>
<td>Very satisfied</td>
</tr>
</tbody>
</table>

NOTE: Take care NOT to ask about a person’s satisfaction with relationships of a person who is within hearing distance (e.g. often a fisher’s wife), as it is inappropriate. If this occurs, focus only on satisfaction with the other (non-present) relationships.
Fig. 3. The relational landscape

YOU
The fisher

HOUSEHOLD
Family, relatives

PEERS
Friends, Crew, neighbours

FISHING COMMUNITY
middlemen, fish buyers, boat owners, cooperative members, other fishermen (local/outsiders)

WIDER COMMUNITY
shop owners, money lenders, other villagers, community leaders, religious leaders

ORGANIZATIONS AND INSTITUTIONS
Fisheries office, NGOs, Government organizations

Formal laws, In-formal laws for fishing (customs and traditions)
Case study – Sri Lanka

Fig. 4. Relationships stated by fishermen as being important for fishing and average scored satisfaction (n=10).

Fig. 4 demonstrates the wide range of different social relationships that can have an influence over a person’s fishing behaviour. This, in itself, is useful for fisheries management which often primarily focusses on economic incentive and the size of catch to explain fisher decision-making and behaviour (Salas et al. 2004, Branch et al. 2006). Whilst financial drivers are of course important, they are not the complete story (see Nielsen & Mathiesen 2003). The GRA tool seems to offer a quick and direct means of gaining insight into which relationships matter the most, facilitating greater recognition of the complexity of social relationships that fishers themselves state influence their own behaviour.

In the Sri Lanka study, respondents report a high (average) satisfaction score for relationships with crew, onshore workers, and family members. This is supported by
explanations from fishermen (see below), which describe satisfaction with family and how it relates to fishing, and also Box 7, which hint at the importance of collective action amongst fishers:

“Unity and peace of the family is essential for a good life. Then only a fisher can do his work correctly. Fortunately I have a very good wife and mother in law. They help me lot…. My wife wakes me to go to fishing, my mother-in-law prepares a tasty meal for me; my younger brother-in-law comes to the beach to help me to clean the nets and sort the fish.... We work hard and therefore expect to relax in the home. This is the thing I expect from my family”.

(Lahiru, Rekewa fisherman, July 2012)

Crew satisfaction is also of vital importance to fisher wellbeing, especially for boat owners who depend upon a reliable and trustworthy crew in order to function. Onshore workers play an essential role too in assisting in the landing of the boat (see picture 1). Since there is no harbour in Rekewa, fishers are entirely reliant on help from each other, and other onshore workers, to pull the boat on land, clean the nets, and to sort the catch. Onshore activities provide an important livelihood for many retired fishers and women and, as such, act as an important form of social security for the more vulnerable in society.

Picture 1: Crew and shore-workers work together to land a returned fishing boat, Rekewa Lagoon, 2012

Box 7: “In the fishing village, friendship is very important. We need help from each other always to clean and repair the nets and land the boat. A selfish person does not survive in this landing site... others tend to secretly wish damage for selfish boat owners and do not help when they face accidents at sea such as a broken engine”.

(Dinesh, Rekewa fisherman, 2011)

To protect anonymity, all peoples’ names used in this manual are pseudonyms
Lower satisfaction scores were found with ‘other boat owners’ and ‘fish traders’, which highlights an interesting conundrum facing many fishers in Rekewa. Other boat owners were often discussed in a positive light, in that there is a strong sense of congeniality at sea, where fishers look out for each other’s safety and are reliant on good communication around possible hazards. However, this sense of collaboration is also marred by inevitable competition between boat owners and, in some cases jealousy, secrecy, and conflict (especially between different fishing gear users), which may explain a lower satisfaction rating. The relationship between fisher and fish traders is similarly double edged. Traders are vital actors in the life of a fisher – they provide a market for catch once landed, and can provide important benefits such as access to credit (note that the need for economic security, indicated by ‘no access to credit in an emergency’ is unmet in many of the households interviewed (see part 1)). Traders are also frequently the first to raise the alarm when boats fail to return from a fishing trip, since they are onshore awaiting the produce. However, the relationship with traders can also be difficult and often exploitative. Boat tying is a practice, common throughout fisheries (Amarasinghe 1989, Platteau 1992) where an advance loan is given by a trader in return for a pledged sale of the entire catch of a boat at a set price, for a period of time (often several years), or until the loan is repaid. The set price for fish is usually far below the market value, which can restrict the capacity of fishers to trade in a free market acquiring the best values for their produce. This restricted freedom to sell can have significant impact on fisher wellbeing.
GPGI Interview

The third dimension of wellbeing ‘where one can enjoy a satisfactory quality of life’ is captured through interview where people are asked to discuss self-nominated aspects of their life that they feel are important to be able to ‘live well’. To facilitate the discussion, and drawing from existing methods in health studies (Ruta et al 1994), the WeD group developed the ‘Global Person Generated Index’ (GPGI). This is an ‘individualised’ measure that uses a mix of open-ended questions and scoring to establish a person’s satisfaction with the areas of life that are most important to them (see McGregor et al 2009). It captures ‘subjective wellbeing’ since it is entirely focussed on the subject’s own perception of what matters most in their lives, and their self-reported levels of satisfaction with those domains of life. In parallel to the GRA tool, it includes a process where respondents are asked to nominate up to five areas that they consider important to their lives and explain their importance, and then score these to indicate their level of satisfaction (using the same scale where 1 = ‘the worst you can imagine’ and 5 represents ‘exactly as you would like it to be’).

Note to respondents: The GPGI tool facilitates the interview and is not a stand alone tool. Respondents should be asked to explain why they have chosen each criteria and scored it as such, and their responses carefully recorded. The GPGI tool can also be used as part of a wider quality of life interview (as was done in the WeD research, using the WeD-QUAL tool) although this is not detailed within this handbook (see www.welldev.org.uk/research/methods-toolbox/qol-toolbox.htm and also Camfield 2006 for further detail).
### ‘Global’ Person Generated Index of Quality of Life [GPGI]

<table>
<thead>
<tr>
<th>Step 1: Identifying aspects of life that are important for living well here</th>
<th>Step 2: Scoring Satisfaction in Each Area</th>
<th>Step 3: Spending Points – what needs to be changed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>We would like you to think of the areas of your life that are most important for you to be able to live well in this community.</td>
<td>In this part we would like you to score your level of satisfaction in the areas that you mentioned in step 1. This score should show how you felt about this area of your life over the past MONTH. Please score each area using this scale:</td>
<td>If you were able to change these areas of life what would you seek to change?</td>
</tr>
<tr>
<td>These can be things that you:</td>
<td>5 = Excellent - Exactly as you would like to be 😊</td>
<td>We want you to ‘spend’ 10 points to show which areas of your life you feel are most important to change in order to improve your overall quality of life.</td>
</tr>
<tr>
<td>- need to have</td>
<td>4 = Good - Close to how you would like to be 😊</td>
<td>Spend more points on areas you feel are most important for you to change and less on areas that you feel are not so important.</td>
</tr>
<tr>
<td>- need to be able to do</td>
<td>3 = OK, but not how you would like 😞</td>
<td>You don’t have to spend any points on each area (i.e. you can choose to spend no points on one or more areas).</td>
</tr>
<tr>
<td>- the sort of person you need to be</td>
<td>2 = Poor but not the worst you could imagine 😞</td>
<td>You can’t spend more than 10 points in total.</td>
</tr>
<tr>
<td>- important people or things to know about</td>
<td>1 = Bad - The worst you could imagine 😞</td>
<td></td>
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</tbody>
</table>

Please tell us up to five areas in order of IMPORTANCE

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</tbody>
</table>
**Case study – Sri Lanka**

**Fig. 5. Wellbeing domains described by fishermen as being important for living well (n=10)**

Fig 5. Highlights the wellbeing domains stated by fishermen in Rekewa lagoon, as being important for living a good life, alongside average satisfaction scores. Important domains for life satisfaction, which fishers seem to be fairly satisfied with, include income, religious devotion, and having good neighbours. Religion is an important part of Buddhist life and has been frequently linked to wellbeing (Jha 2011). There was general dissatisfaction with the domains of ‘community behaviour’, ‘health’, ‘fishing gears’, and access to ‘vehicles/ transportation’. Explanations given by interviewees highlighted that dissatisfaction with community relates to a lack of respect from younger generations and community violence, which is often fuelled by alcohol abuse.

“Liquor addiction is a crucial factor that decides the direction of a fisher’s life. Most of the fishers think liquor and drugs are essential items for their lives. They justify it, as drugs and liquor are mental and physical pain killers. They take liquor to forget their problems, but liquor and drugs decay their entire lives”. (Interviewee 11)

The problem of excessive alcohol consumption is common in fishing communities worldwide (Westaway et al 2007, Busby 1999). These comments around alcohol and violence in Rekewa can also potentially be connected to findings in part 1 (Table 1) which demonstrates that people’s basic need for physical security (indicated by experience of physical violence) is denied in a significant number of cases.
Dis-satisfaction with access to vehicles and transportation reflects a lack of public transport options throughout Rekewa, which presents a significant barrier for transporting fish to market, as well as substantial transportation costs (hiring 3-wheelers) for many households. Having a vehicle can open up opportunities to diversify from fishing into fish trading, as the interview extract below suggests, and can also mean the avoidance of exploitation by middle-men traders:

Fishing gear inadequacy is another aspect of dissatisfaction. Many fishers (as is commonly found throughout fishing communities) aspire for enhanced fishing capacity; larger boats that can cover wide expanses of ocean and more efficient gears. Of most surprise however, was the dissatisfaction with health, given that health care is relatively good in Sri Lanka, and the availability of nearby hospitals and free health care access. The poor quality of national health care services was sometimes mentioned in interviews, however, fishers in the area also suffer substantially from back pain and damage to limbs caused by the hauling of boats onto the beach (see extract below), and it is this aspect of ill-health which seems to dominate:

“In my young age I was not concerned about my health... I would drag the boat to land without asking help of others. Due to this malpractice my vertebra column is now damaged and I have severe back pain. Therefore, I cannot fish in the deep sea. I cannot be satisfied about my health. I have to work at least twenty years more until my son can do a job. But already my strength has deteriorated and I have become a patient. Doctors advise me to take bed rest for at least six months. If I do that, no one will give money for my family. My family totally depend on me therefore I have to work hard continuously without concern of my pain. (Interviewee 19)
This methods handbook has outlined how a 3-dimensional approach to study wellbeing can be operationalized through specific methods and tools, and discussed illustrative findings in the context of a Sri Lankan small-scale fishing community. Each method helps to unpack and explore one of the 3 dimensions of wellbeing. This focus on human needs and areas where they are being unmet (such as economic security and education), the range of social relationships that can facilitate or restrict the pursuit of wellbeing (such as the complex role of fish traders), and subjective perspectives on wellbeing according to criteria set by fishermen themselves, provides a powerful multi-dimensional vision of a person’s quality of life. Whilst wellbeing may at first appear an abstract concept, which is difficult to put into practice, our experience of discussing the nature of wellbeing with fishermen in Sri Lanka revealed that the concept was easily understood by respondents, and generally encouraged an engaging and fruitful debate. In particular, giving people the space to name their own criteria of assessment (in the GRA and GPGI tools) may help stimulate a sense of fuller participation than that provided by many existing approaches that use pre-determined wellbeing assessment criteria.

A particular strength of the wellbeing approach seems to be its capacity to highlight the social nature of wellbeing in fishing communities. We see the importance of social relationships with others in the achievement and denial of several wellbeing aspects – for example, the role of family relationships which support and enable a fisherman to do his work without worry when he is at sea (leaving his family onshore), and the inter-dependencies of fishermen in terms of reliable crew, safety at sea, and efficient working on shore (net mending and fish sorting). We also gained insight into the negative influence of relationships, particularly for those in debt and who are heavily reliant upon middlemen for the sale of their catch. The high value attributed to owning one’s own vehicle is explained here, as it is not just an economic indicator but also provides a route to freedom to make decisions about how to market their catch.

A 3-dimensional analysis of wellbeing illuminates possible areas of focus for development policy and a deeper understanding of some of the motivations behind human behaviour, which is useful for fisheries management. For example, dealing with the concerns of back injuries from landing boats could be tackled through better provision of boat landing facilities, but with due attention to the concerns of other fishers in the area/beach users whose livelihoods may be disrupted by harbour development. Social wellbeing may also be supported by efforts to encourage reduced alcohol consumption, and to understand the impacts for the many affected victims of alcohol abuse and community violence. Whether or not these development activities are considered to fall within the remit of fisheries management remains to be seen, but an argument can be made that
fisheries sustainability and poverty reduction can be mutual goals (Coulthard et al 2011). Furthermore, agendas of marine conservation (which, in Rekewa lagoon, include substantial turtle conservation interests) as well as general fisheries sustainability, might win greater buy-in and support from local fishers, if they can re-align with improving the quality of people’s lives as a whole, rather than a sole focus on the marine resources on which those lives depend.

References


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