

# The value of gleaning: beyond food and income

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*Women in Timor-Leste collect coastal seafood for a range of reasons, reaching far beyond the dinner plate. Those reasons take on different importance in different parts of the year. Here, we explore the purposes for women's coastal gleaning based on our research publication "Gleaning: beyond the subsistence narrative" (Grantham et al. 2020). Recognising the diversity within fishing communities and the multiple reasons driving the action of gleaners can support more specific and effective fisheries management planning.*

To examine the plural (Box 1) and seasonal values of coastal gleaning, we undertook an exploratory case study with a community in Timor-Leste. We asked: (1) What are the seasonal characteristics of gleaning in the community? (2) Why do women glean and what values do they derive from gleaning? (3) How do values associated with gleaning change between seasons?

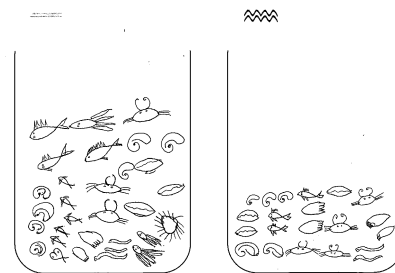
Gleaning, the manual collection of marine organisms from the intertidal zone, is a widespread small-scale fishery in the Global South. Gleaning is typically carried out by women, is often a social activity (Whittingham et al. 2003), and can contribute substantially to landings, income and food security (Chapman 1987; Kleiber et al. 2014). Despite its importance, gleaning is underrepresented in coastal research and management (Harper et al. 2013; Fröcklin et al. 2014; Kleiber et al. 2015). When gleaning is included in research and management, the focus tends to be on women's gleaning as a source of seafood for household subsistence. Although this focus is crucial for highlighting the importance of gleaning for food security, it does not capture the wider contributions of gleaning for women's well-being. More equitable and sustainable coastal decision-making relies on a more holistic perspective of gleaning and its socio-ecological relevance.

We set out to understand the well-being values of gleaning for women and how those values differ seasonally. Understanding how seasons affect the ways people interact with and benefit from coastal ecosystems is particularly important in the context of a changing climate and shifting seasonal conditions (Oppenheimer et al. 2019). Although the contribution of gleaning to livelihoods in the context of seasonal availability and accessibility of other coastal fisheries has been recognised (Tilley et al. 2021), previous empirical work has not examined seasonal changes in the social well-being values of gleaning.



A participant in one of the focus group activities

We used focus groups, surveys, and interviews to learn from the community. The focus groups were our main resource, and we designed these groups to be inclusive and targeted at women who gleaned. To ensure women who could not read or write were able to participate, we used non-written data collection methods, including drawing and picture-based



Drawing 1. An example of the drawings of seasonal gleaning catches in Timor-Leste (left: calm season; right: rough season).

## Box.1 Measuring multiple values

The research was underpinned by the knowledge framework of ecosystem services and well-being. As these fields develop, practitioners are moving beyond money or food as measures of value.

The study of ecosystem services is developing to account for the multiple and different ways that coastal ecosystems matter to people: attempts to recognise this variation are called plural value approaches (Lau et al. 2019; Blythe et al. 2020). These plural value approaches recognise factors such as differences in the ways that people of different genders interact with and benefit from coastal ecosystems (de la Torre-Castro 2019; Fortnam et al. 2019).

Progress in the well-being literature emphasises that well-being emerges from the interplay between three domains of a good life (White 2009): the material (assets and physical "stuff" that people have), relational (social interactions and governance that determine what people can do) and subjective (cultural values and perceptions that influence how people feel). This extended definition of well-being is fundamental for understanding and supporting meaningful relationships between people and nature as part of equitable and sustainable environmental management (Chan et al. 2011). In fisheries, using well-being approaches to represent societal values is central to building a more respectful definition of quality of life that extends beyond just the ability to meet basic needs (Camfield 2006; Weeratunge et al. 2014; Johnson 2018).

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activities (Fig. 1). The focus groups were kept small, with a total of 13 women participating in two separate focus groups.

Our results show that in Timor-Leste, gleaning activities and catches were seasonally variable; gleaning was more widespread and catches more abundant and lucrative at times of the year when the sea was calm compared to when the sea was rough.

The women explained to us that they gleaned for ten distinct but not mutually exclusive reasons. Five of the reasons related to the outcomes of gleaning (that is, as a means of sourcing seafood). The other five reasons related to doing the activity of gleaning (Fig. 2). The stated reasons for gleaning represent a spectrum of instrumental and relational well-being values. For example, catches can provide important material well-being benefits and when shared may also support social connections.

The women ranked the perceived relative importance of reasons for gleaning differently between individuals and seasons. Seasonal differences in reasons for gleaning reflect differences in the risks, challenges, and catches of gleaning and indicate that women’s value priorities change at different times of the year. For example, the importance of gleaning for income was lower in the rough season than the calm season because women rarely collect high-value groups, such as octopus, in rough weather.

In other words, ecosystem values change through time. The differences we found suggest that non-seasonal assessments may show only part of the story about why coastal ecosystems matter to people.

Our findings emphasise the need for a more complex understanding of how women’s interactions with coastal environments, such as through gleaning, are shaped by the pursuit of multidimensional well-being (Coulthard 2012). As well as providing an important source of seafood and material

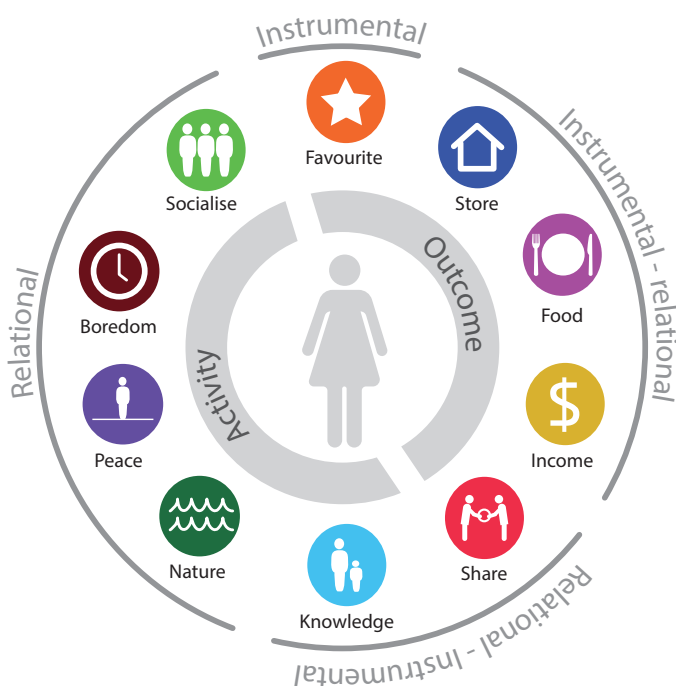
well-being, gleaning supports meaningful interactions with other people and nature. Notably, household food and income security – a core part of the subsistence narrative – were not a priority for all gleaners.

Our research demonstrates the need for socially and temporally disaggregated assessments of coastal ecosystem values. Recognising the diversity within fishing communities and specifically including gleaners, distinct from other small-scale fishers, in consultation and research can support more specific and effective management planning. Specifically, this research indicates the need to move beyond essentialised narratives of women’s contribution to their own and their family’s well-being. Failure to account for the diverse multidimensional well-being benefits derived from marine resources by different stakeholders, including women and gleaners, risks exacerbating inequalities and hardship (Coulthard et al. 2020). Research that links women’s choices and actions to multiple dimensions of well-being (beyond material) is needed to support a more nuanced representation of women’s needs, values, and preferences in coastal management.

This research has been published in an article titled “Gleaning: beyond the subsistence narrative” (Grantham et al. 2020). A more detailed description of the research methods and analysis and in-depth discussion is presented in the full article, which is available open access at <https://link.springer.com/article/10.1007/s40152-020-00200-3>.

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### Reasons for gleaning

- Favourite  
Find types of seafood they most enjoy eating, intended for their own consumption
- Store  
Find seafood to dry and store for later consumption by members of their household
- Food  
Find seafood intended for fresh consumption by members of their household
- Income  
Find seafood they can sell (dry or fresh)
- Share  
Find seafood to share with friends and family
- Knowledge  
Teach children how to glean
- Nature  
Enjoy the landscape and being on the beach
- Peace  
Time alone, away from the community, children and responsibilities
- Boredom  
Avoid being bored when they have nothing else to do
- Socialise  
Spend time with friends and family

Figure 2. Women in Timor-Leste reported ten distinct, although not mutually exclusive, reasons for gleaning coastal foods (reproduced from Grantham et al. 2020, CC BY 4.0)

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