

inclusivity and equality in small-scale fisheries

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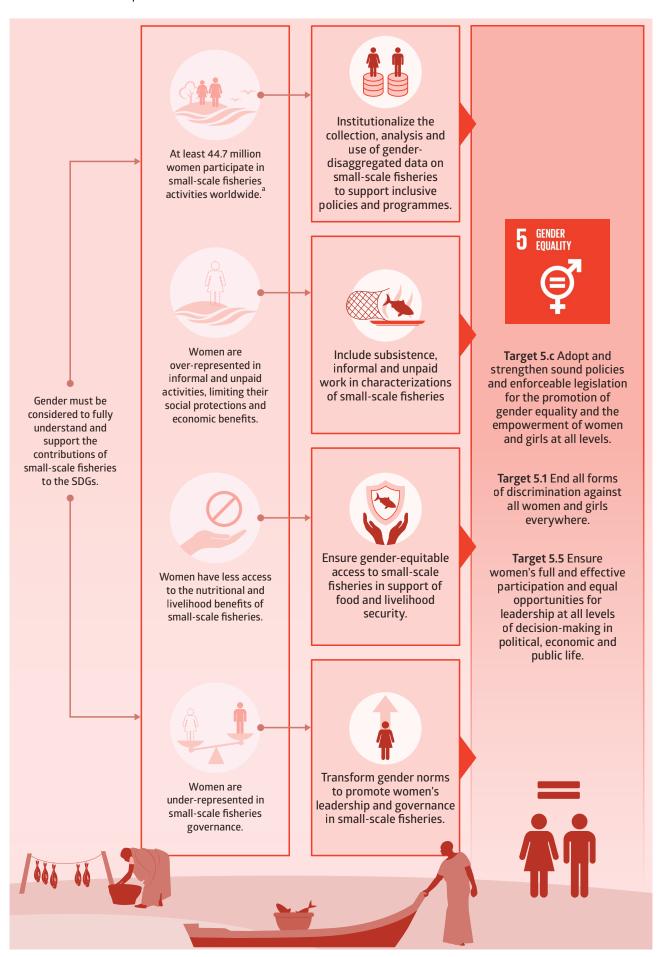
6.1 Key findings and messages

- An estimated 44.7 million women worldwide participate in small-scale fisheries value chains or engage in subsistence activities, which translates into 39.6 percent of the total people active in the subsector. Women represent 15.4 percent of total employment in the pre-harvest segment of the small-scale fisheries value chain (e.g. gear fabrication and repair, bait and ice provisioning, boat-building), 18.7 percent in the harvesting segment (including vessel-based and non-vessel-based activities), 49.8 percent in the post-harvest segment (e.g. processing, transporting, trading, selling) and 45.2 percent of the total actors engaged in small-scale fisheries subsistence activities.
- Women participate in small-scale fisheries most commonly through informal and unpaid activities, limiting their social protections and security. While this participation can be partially highlighted through estimates of engagement in subsistence activities, much of it continues to be systematically excluded from official fisheries data collection and analysis, and thus women's contributions are insufficiently considered in fisheries decision-making.
- Women are over-represented in intertidal, low-gear, invertebrate fisheries due to limitations in access to gear and fishing habitats. These fisheries are less likely to be defined as fishing, and thus may not be monitored, resulting in underestimations of catch, social importance and environmental impact.

- Women in many contexts have less access to smallscale fisheries, but also stand to significantly benefit from that access, with broad societal implications for food security and nutrition and poverty alleviation.
- Women continue to be under-represented in smallscale fisheries governance systems, and those who do participate are typically only able to engage in limited ways. Barriers include gender-blind small-scale fisheries policy, and lack of capacity to implement existing policy.
- The Illuminating Hidden Harvests (IHH) study illustrates that gender-disaggregated fisheries data are still rare, especially in official national-level fisheries statistics. Gender disaggregation should be the minimum requirement for all monitoring and research that informs fisheries policies and programmes. Gender-blind data or biased data collection methodologies overlook women in fisheries, obscuring the full contributions of smallscale fisheries towards the realization of the Sustainable Development Goals (SDGs) and towards achieving gender-inclusive fisheries policies and practices, as called for by the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines).

Figure 6.1 provides an overview of key pathways through which gender considerations in small-scale fisheries support their contribution to sustainable development.

Figure 6.1 Key pathways through which gender considerations support the contributions of small-scale fisheries to sustainable development



Note: a Reference year 2016.

6.2 Introduction

Small-scale fisheries cannot be understood without considering gender, and this requires confronting the continued absence of women in the already limited data available on small-scale fisheries (Kleiber, Harris and Vincent, 2015; Harper *et al.*, 2017). The first attempt to gauge the scale of women's engagement in small-scale fisheries globally was done in the 2012 Hidden Harvest study (World Bank, 2012). The findings in this study underscored the need for commitments to gender equity and equality, which have been further articulated in international policy guidance, specifically the SSF Guidelines and the SDGs (FAO, 2015). However, it has proven elusive to translate these into action, in particular the commitment to closing the gender data gap.

The gender data gap in small-scale fisheries is a sexist phenomenon whereby the vast majority of information gathered by fisheries management and related agencies and institutions refers only to men. This data gap persists because fisheries, as with many other sectors, are caught in a self-reinforcing, gender-blind²⁴ feedback cycle (Figure 6.2; adapted from FAO, 2017b). In this cycle, sexist data are both a product and a reinforcer of structures²⁵ that present a limited view of the contributions of the small-scale fisheries subsector to economies, food security and nutrition, and sustainable development (Lentisco and Lee, 2015). The gender data gap is not unique to small-scale fisheries. It has been documented at a global scale in many labour markets, and is identified as a major barrier to the realization of the SDGs (Buvinic and Levine, 2016). Investigating how sexist data are perpetuated, and more importantly where these data are being challenged in smallscale fisheries, can elucidate best practices for data collection processes that are gender-aware and gender-inclusive, and also take into account other intersecting identity characteristics such as age, class, race and religion (Box 6.1; Figure 6.3). These practices can add insights on means to strengthen small-scale fisheries contributions to sustainable development.

This chapter seeks to address the challenge sexist data present and outline the opportunities associated with gender-inclusive small-scale fisheries structures. It does so by assessing gender-related gaps and barriers that persist in the collection and analysis of small-scale fisheries data, with

examples that highlight pathways towards gender inclusivity and equality, as critical information for the implementation of the SSF Guidelines and for fully understanding the contributions of small-scale fisheries to the SDGs. Specifically, the chapter focuses on answering the following:

- What are the gendered patterns of participation in the pre-harvest, harvesting and post-harvest segments of small-scale fisheries value chains? What types of activities are recorded, and which are missing from small-scale fisheries economic analyses?
- What species do women and men harvest, using what gear types and in which habitats? Which species are included, and which are missing from the analysis?
- How does gender determine access to the nutritional and livelihood benefits of small-scale fisheries? What are the current data limitations to understanding differences in access to these benefits?
- How is gender addressed in small-scale fisheries governance in terms of representation, distribution of authority and mechanisms of accountability? What are the monitoring gaps to assess gender equity in governance?

In responding to these questions, the chapter illuminates a fuller picture of the contributions from small-scale fisheries as they relate to four thematic areas of the SDGs: economics, environment, nutrition and governance. It concludes by returning to the challenge of sexist data structures to identify key actions to catalyse the transition from "gender-blind" to "gender-inclusive" small-scale fisheries research, policy and practice.

This chapter is informed by qualitative and quantitative data from three main sources: 58 country and territory case studies (CCS), IHH employment datasets for 78 countries, and input from 28 IHH gender advisors. Together these sources were used to identify gaps and barriers to collecting and reporting gender-inclusive small-scale fisheries data, while also illuminating what is known about gender and small-scale fisheries. The data sources are described in Annex A; Table 6.1 outlines which sources were used to answer questions across each thematic area.

²⁴ This can include policy documents that do not address gender, but also research and development that ignores the roles, rights and responsibilities associated with women and men as well as power dynamics between women and men, and girls and boys (Kleiber *et al.*, 2019).

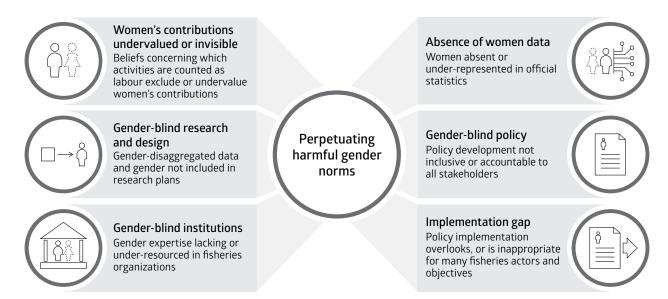
²⁵ These structures include data collection, monitoring and evaluation systems, policies, institutions, and norms that characterize and govern small-scale fisheries.

²⁶ See glossary of IHH terms.

²⁷ To integrate gender across the IHH study, a team of 28 gender advisors (79 percent women, 21 percent men) with national or regional expertise from around the world was assembled (see Annex A for a list of countries and names).

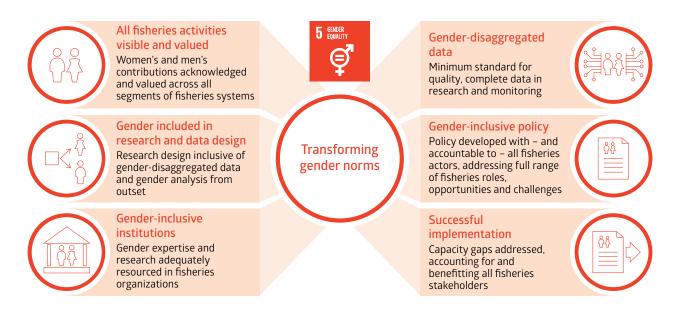
Figure 6.2 Cycle of gender blindness that is reinforced by a policy, research and social environment that perpetuates gender disparities and inequality

Entrenched gender blindness



Source: Framework first inspired by: FAO. 2017. *Towards gender-equitable small-scale fisheries governance and development: a handbook.* N. Biswas, ed. Rome. Framework further informed by a workshop on capacity and capability indicators for the integration of gender into small-scale fisheries: Kleiber, D., Cohen, P., Gomese, C. & McDougall, C. 2019. *Gender-integrated research for development in Pacific coastal fisheries.* Program Brief: FISH-2019-02. Penang, Malaysia, CGIAR Research Program on Fish Agri-Food Systems. https://digitalarchive.worldfishcenter.org/bitstream/handle/20.500.12348/2826/FISH-2019-02.pdf.

Figure 6.3 Cycle of gender inclusivity and equality that is reinforced by an enabling environment where policy, research and social structures and systems are intent on reducing gender disparities and increasing gender equity in fisheries



Source: Framework first inspired by: FAO. 2017. Towards gender-equitable small-scale fisheries governance and development: a handbook. N. Biswas, ed. Rome. Framework further informed by a workshop on capacity and capability indicators for the integration of gender into small-scale fisheries: Kleiber, D., Cohen, P., Gomese, C. & McDougall, C. 2019. Gender-integrated research for development in Pacific coastal fisheries. Program Brief: FISH-2019-02. Penang, Malaysia, CGIAR Research Program on Fish Agri-Food Systems. https://digitalarchive.worldfishcenter.org/bitstream/handle/20.500.12348/2826/FISH-2019-02.pdf.

Box 6.1

Gender and disaggregated data

Sex and gender describe different but related things.^a While sex is usually used to describe biological traits of female and male animals, gender describes the socially defined roles, responsibilities and behaviours that are assigned to women and men. Sex and gender are both complex and nonbinary, and they interact with each other. The understanding of how they are defined and used by science and culture is rapidly evolving. However, in a broad sense, assuming that gender and sex are the same reinforces the error that gender roles are based in biology and therefore unchangeable.

Social rules involving gender influence how women and men interact with their natural environment and with socioeconomic systems. This includes their ability to participate in and benefit from small-scale fisheries as well as influencing how they are managed, which varies greatly with circumstance. In recognition of this, gender is central to understanding the multiple dimensions of small-scale fisheries and their contribution to sustainable development.

The term "gender-disaggregated" is used to describe any data that include information on women and men. It is recognized that some practitioners prefer to refer to this type of data as sex-disaggregated, to distinguish it from other more in-depth and nuanced types of gender analysis that take into account contextualized and culturally grounded relationships. Indeed, it is acknowledged that binary disaggregation by gender is a baseline requirement for data quality, but it is not sufficient for full gender analysis.

Gender does not merely shape the different roles and relationships that men and women tend to have in informal and formal activities associated with small-scale fisheries. It also affects the opportunities and responsibilities they are given, and the challenges and risks they face, in relation to all aspects of sustainable development. Moreover, the ways in which gender is understood affect the power and agency women and men experience in governing and managing fisheries, in pursuing opportunities to improve well-being or economic performance in fisheries value chains, and in accessing productive assets (e.g. parts of fishing grounds, gear types or vessels, or infrastructure such as markets). Research and development initiatives that have a proper understanding of gender and its influence on other economic, environmental, nutrition and governance aspects of small-scale fisheries, are better positioned to secure or improve the contributions of small-scale fisheries to sustainable development.

Note: a D'Ignazio, C. & Klein, L.F. 2020. Data feminism. Cambridge, USA, MIT Press.

Table 6.1 Data and methods used for gender analysis of different thematic areas

Thematic area	Data sources	Methods		
Economics	Country and territory case studies (CCS); labour force surveys; household income and expenditure surveys; censuses; input from gender advisors	Feminist approach to data science: investigating multiple data sources and uncovering bias ^a		
Environment	CCS; input from gender advisors	"Foot fisheries" (i.e. fishing without a vessel) used as an imperfect proxy for fishing activities in which women tend to participate ^b		
Nutrition	Input from gender advisors	IIntersectionality ^c		
Governance	Input from gender advisors; CCS; Duke University database of civil society organizations	Gender-inclusive governance, gender mainstreaming ^d		

Notes: **a** D'Ignazio, C. & Klein, L.F. 2020. Data feminism. Cambridge, USA, MIT Press. **b** Kleiber, D., Harris, L.M. & Vincent, A.C.J. 2015. Gender and small-scale fisheries: a case for counting women and beyond. Fish and Fisheries, 16(4): 547–562.**c** Cooper, B. 2016. Intersectionality. In: L. Disch & M. Hawkesworth, eds. The Oxford handbook of feminist theory, pp. 385–406. Oxford, UK, Oxford University Press. **d** FAO. 2015. Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. Rome.

6.3 Participation by women in small-scale fisheries value chains and subsistence activities

From bookkeeping and provisioning for fishing trips, to informal processing and transport and sale of fish and invertebrates, many small-scale fisheries activities are neither enumerated nor remunerated, and these activities tend to be disproportionately done by women (Gopal et al., 2020). Without these activities and inputs (i.e. informal employment and unpaid work, including care work), essentially all fishing operations and communities would not function, and fish would not make it to market or consumers. Yet, many of these activities continue to be invisible to policymakers and managers. This is because fisheries continue to be mainly considered from the harvesting (and environmental) perspective and to some extent the market for the product, but rarely include the full picture of actors and activities, including the entire fisheries value chain, subsistence fishing and processing, and all relevant inputs.

Of the 58 CCS included here, 25 had some (but often limited) gender-disaggregated data. Data extracted from labour force surveys and household income and expenditure surveys (rather than fisheries surveys) provided a more comprehensive set of genderdisaggregated data to understand gendered patterns of participation in small-scale fisheries. These data suggest that women represent 15.4 percent of total employment in the pre-harvest segment of the small-scale fisheries value chain (e.g. gear fabrication and repair, bait and ice provisioning, boat-building), 18.7 percent in the harvesting segment (including vessel-based and non-vessel based activities), 49.8 percent in the post-harvest segment⁵ (e.g. processing, transporting, trading, selling) and 45.2 percent of total actors engaged in subsistence fishing and processing. Overall, data collected for this study suggest that 44.7 million women worldwide participate in small-scale fisheries employment along the value chain or engage in subsistence activities (harvesting and processing), meaning that women represent an estimated 39.6 percent of total participation in the subsector (Table 6.2). While this number appears to be less than the previous global estimate of 46 percent from the Hidden Harvest study (World Bank, 2012), this latest estimate is more broadly based, as it involves a much larger dataset of countries and different estimation approaches. However, the figures presented here likely still underestimate the contributions from women in small-scale fisheries because of overall limitations in the availability of small-scale fisheries data.

Gendered patterns of participation in fisheries are dynamic, with gender roles and responsibilities shifting over time in relation to social, economic and environmental pressures and trends (Gustavsson, 2020; Thomas *et al.*, 2021). However, in many

Women's work is often excluded from fisheries data collected by the Department of Fisheries. This is particularly the case for processing, but also the other kinds of 'shadow work' that sustain fishermen.

(J.L. Johnson, Gender Advisor for Ugando personal communication, 2020)

contexts, fisheries-related activities are segregated along gender lines with other identity factors intersecting to determine who does what and where (Pedroza-Gutiérrez, 2019). Input from gender advisors in the IHH study indicated a commonly observed pattern where men are involved in full-time and year-round fishing activities, whereas women's involvement tends to be in occasional, seasonal and unpaid/informal activities, often labelled an extension of their domestic responsibilities.

Some of the barriers to collecting gender-disaggregated fisheries data identified in this study involve a lack of institutional capacity, such as low funding, no gender training for staff, and not enough women researchers. The structural focus is on fishing and the market, but women are not assumed to be key players in the sector; hence the collection, analysis and dissemination of gender-disaggregated employment data is given lower priority.

6.3.1 Pre-harvest segment

Data reflecting the scope and scale of participation in pre-harvest activities, such as making/repairing nets and gear and bait acquisition, are limited in official datasets, especially those activities performed by women. For example, in Galicia, Spain, net-weavers (who are predominantly women) are not recognized or represented in fisher guilds or accorded labour rights (E. Ojea, 2020, Gender Advisor, Spain). By contrast, in Chile some national-level data exist for pre-harvest segment employment, disaggregated by gender, while in one region of Brazil official data include the number of women engaged in gear repair and bait acquisition (Brazil and Chile CCS). Where pre-harvest employment data exist, whether disaggregated or not, the numbers likely under-represent women's contributions due to the invisibility and devaluation of certain activities and employment. For instance, in Nigeria, net-making is considered an extension of women's reproductive or household activities and is therefore not included

Table 6.2 Global estimates of small-scale fisheries (SSF) participation by gender for pre-harvest, harvesting, post-harvest and subsistence activities in inland and marine subsectors in 2016, extrapolated from 78 labour force and household-based surveys

Activity		Total	Women	Men	% women
Pre-harvest	Marine + Inland	1726 030	266 064	1 459 966	15.4
Harvesting - commercial	Inland	14 598 317	2 932 685	11 665 632	20.1
	Marine	12 863 038	2 208 733	10 654 305	17.2
Subsistence (harvesting and processing)	Inland	35 997 415	15 941 880	20 055 535	44.3
	Marine	16 839 732	7 919 975	8 919 757	47.0
Post-harvest	Processing	7 492 211	3 646 122	3 846 089	48.7
	Trade	23 521 133	11 805 858	11 715 275	50.2
Total	SSF	113 037 876	44 721 316	68 316 560	39.6

Note: Informal and unpaid activities including care work are not fully captured by the data sources and thus these estimates do not convey the totality of women's contributions to small-scale fisheries.

in censuses of fisheries employment (K. Fakoya, 2020, Gender Advisor, Nigeria). Due to the informal and unpaid nature of many pre-harvest activities, these are often not valued or considered as work, and are therefore not recognized or recorded as fisheries employment. In the United Kingdom of Great Britain and Northern Ireland, "women often do the 'paperwork', value added-tax (VAT) returns, crew settling and other administration for fishing businesses including online aspects" (M. Gustavsson, 2020, Gender Advisor, United Kingdom of Great Britain and Northern Ireland), yet these are rarely considered in estimates of fishing costs, which focus on costs of crewing vessels but not the work involved in getting those crew on board, fed and paid.

6.3.2 Harvesting segment

The fisheries where women participate most tend to be dispersed, with the activity carried out on foot and using minimal gear (Harper et al., 2020). For many countries in this study, these fisheries were poorly captured in terms of data collection and monitoring. Gender norms often restrict women from participating in harvesting activities, especially boatbased fishing, where fisheries data collection efforts tend to be focused. Thus the fishing activities where women participate most are systematically excluded, resulting in gender-biased employment data in many contexts. However, some countries in the study revealed small-scale fisheries employment data that

were more gender-inclusive. For example in Peru and the Philippines, inland fishing activities dominated by women such as gleaning and seaweed harvesting are included in the official data, disaggregated by gender. For Peru, small-scale fisheries data provided by the Instituto del Mar del Perú (IMARPE) have been disaggregated by gender since 2012, when IMARPE and the Instituto Nacional de Estadística e Informática (INEI) joined forces with the Peruvian Ministry of Production (PRODUCE) to conduct the country's first census of small-scale fishers (Guevara-Carrasco and Bertrand, eds., 2017). The availability of these data has made gender analysis of Peruvian seafood value chains possible (Christensen et al., 2014) and provides an example of mainstreaming gender-disaggregated data collection through coordination across agencies that collect and analyse demographic and fisheries data.

6.3.3 Post-harvest segment

The segments of the fish value chain where women are most present and visible are processing, marketing and trading, although men also participate to varying degrees. In Kerala, India, "women are primarily involved in post-harvest activities as labourers in prawn peeling, home-based and wage labourers in fish drying, and as fish traders. A small number work as auctioneers and export agents (i.e. procure products for exporters)" (H. Hapke, 2020, Gender Advisor, India). In the United Republic of Tanzania,

Zanzibar, over the last two decades the number of women fish traders in local markets has increased substantially, such that they are now commonly seen there in equal numbers to men (Fröcklin et al., 2013; M. Torre-Castro, 2020, Gender Advisor, United Republic of Tanzania). Nevertheless, structurally, many fisheries agencies continue to focus on production, and thus the data lack accurate representation of postharvest activities, especially those associated with the small-scale subsector. An exception to this is India's National Marine Fisheries Census, where, although not counted under the category of "fisher", women are enumerated in the table of "fishing allied activities", i.e. fish marketing, making or repairing nets, curing/ processing, peeling, labourer and others (Central Marine Fisheries Research Institute, 2010).

6.3.4 Subsistence harvesting and processing

Many small-scale fishing activities are not counted as "employment" in fisheries data because they are not market-oriented, nor are they done in exchange for pay or profit. Here, these contributions have been partially captured through data extracted from labour force surveys and/or household income and expenditure surveys, which indicate that globally 23.3 million women participate in marine and inland harvesting and processing activities for subsistence, representing 45.2 percent of all those engaged in

subsistence activities in the subsector.²⁸ Participation by women in subsistence activities is highest in Africa and Oceania where women represent 56.8 percent and 50.4 percent, respectively, of all those participating in small-scale fisheries, without remuneration, to feed their families. Because subsistence activities are informal and unpaid. women's participation is under-represented in fisheries datasets that focus on commercial species and paid work. For example, in Ghana and the Gambia, women glean for oysters and shellfish in estuaries, but data representing these activities are not reflected in national fisheries statistics (Bilecki, Torell and Owusu, 2015; Njie and Drammeh, 2011; UNCTAD, 2014; A. Fent, 2020, Gender Advisor, the Gambia). Likewise in processing, activities that take place in plants and factories may be recorded in national employment datasets, but those that take place in informal or private spheres are not. Examples of this are found in Rio Grande, Brazil, where women work in sheds or backyards at home, processing occasionally whenever they have fish (L. Hellebrandt, 2020, Gender Advisor, Brazil); and in the United Republic of Tanzania, where women occupy informal market spaces (M. de la Torre-Castro, 2020, Gender Advisor, United Republic of Tanzania). These spaces are not captured in the data, especially where surveys have not been adapted to local contexts, but they still constitute an important part of small-scale fisheries value chains.

6.4 Women's fishing activities: methods, habitats and species

Women and men engage in small-scale fisheries activities all over the world (Kleiber, Harris and Vincent, 2015). But, as the following quotes illustrate, the types of fishing they engage in varies greatly, shaped by context-specific societal expectations of women and men (Frangoudes and Gerrard, 2018; de la Torre-Castro *et al.*, 2017; Lentisco and Lee, 2015; Short *et al.*, 2020; Thomas *et al.*, 2021), as well as differential access to fisheries resources including capital, gear, and fishing grounds (Wosu, 2019).

Mirroring the gender data gaps in small-scale fisheries employment data, how fishing and fishers are defined and valued often renders women invisible (Kleiber, Harris and Vincent, 2014; Smith and Basurto, 2019). Boat-based, gear-driven fishing activities that are income-earning and full time are often elevated in data collection and policy priorities, precisely overlooking the contribution of women and other marginalized groups (Kleiber, Harris



The intertidal zone is for women, the coral reef is for men. Shells are for women, fish are for men.

(Siar, 2003)

and Vincent, 2015; Thorpe *et al.*, 2014; Williams, 2015). Taken together, this leads to women's fishing contributions being largely unaccounted for in official fisheries data (Harper *et al.*, 2017). Moreover, from an environmental perspective, this also results in underestimations of catch volume and species targeted, as well as the habitat impacts of women's fishing activities (Harper *et al.*, 2020; Kleiber, Harris and Vincent, 2014).

²⁸ See Chapter 5 for more detail on these estimates.

Gleaning shellfish is women's major fishing activity because it can be done close to home, takes relatively little time, requires no costly fishing equipment and may be done in the company of children.

(Tekanene, 2006)

6.4.1 Fishing methods and gear used

The CCS data on fishing methods, effort, catch volume and species caught were not gender-disaggregated because it was assumed the data were not likely to be available. However, the data on women's fisheries in the foot fisheries²⁹ category was used as a proxy, as previous work has found women are more numerous in these fisheries (Kleiber, Harris and Vincent, 2015; see Table 6.1). Foot fisheries include gleaning or gathering activities in coastal and inland shoreline habitats carried out with tools such as poles and hooks, but often just hands and feet, as well as those carried out from the shore using nets or lines, and sometimes traps.

As explained above, the biases in data collection processes mean that foot fishing was likely underreported in the CCS data, highlighting the scarcity of data on these fisheries, particularly in existing small-scale fisheries management systems. Of the 58 CCS included in this chapter, 17 provided data on foot fisheries. Drawing on information from the gender advisors, and from the broader gender and fisheries literature, an additional 20 CCS were found with some evidence of foot fishing that was not specifically captured in the datasets. For example, in Madagascar, all fisheries listed in the CCS data were classified as vessel fisheries, which overlooks the gleaning fisheries that have been documented in smaller studies, which are harder to access and extrapolate from (L. Robson, 2019, Gender Advisor, Madagascar). For a further 15 CCS, the data did not provide details that allowed for distinctions between vessel and foot fisheries, even though both are likely to occur. For example, in Kiribati the type of fishing was not characterized, but there is literature that documents gleaning fisheries there and in 11 other large ocean states in the Pacific (Kronen and Vunisea, 2009).

Women-dominated fishing methods and gear, such as foraging by hand, hand nets or beach seines, do not often involve a boat or other expensive gear, while fisheries dominated by men, such as longline and trolling, require boats and often a considerable investment in gear (Figure 6.4). Women and men's gear use overlaps considerably, but as explained by

one gender advisor, "most of the fishing methods done by women are also done by men; however, there are fishing methods that are exclusively used by men" (A. Ferrer, 2019, Gender Advisor, the Philippines). Some of the method categories used can hide gender distinctions. For example, divers and gleaners often use similar tools such as hands, spears, claps and/or tongs, and they may even fish in the same intertidal habitat: some during high tide, others at low tide. In other cases, the same gear can be used differently by women and men, with different ecological impacts. For example, mosquito nets are used by both women and men in Mozambique, but modifications to the nets, and the methods used to deploy them, make men's fishing practices more likely to result in ecological damage (Short et al., 2020).3

6.4.2 Fishing habitats

Women tend to fish in nearshore habitats such as estuaries, mangroves and intertidal areas, while men dominate offshore fishing habitats (Figure 6.5). As with fishing methods, there is considerable overlap and variation in habitat use between men and women. "Culturally, where women [are] allowed to participate in fishing, they are confined to fish in nearshore or shallow waters of rivers, lagoons, lakes, etc." (K. Fakoya, 2019, Gender Advisor, Nigeria), while "men utilize the whole seascape" (S. Fröcklin, 2019, Gender Advisor, United Republic of Tanzania). However, in some countries such as Fiji, cultural shifts have enabled women to fish in a wider range of habitats, target a wider diversity of species, use boats to fish, and transport fish to market to supplement household income (Thomas et al., 2021, 2020).

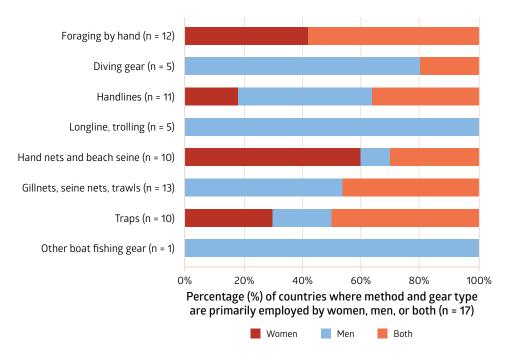
6.4.3 Species harvested

From the information gathered through the CCS, men appear to dominate finfish and arthropod (i.e. crab, lobster and shrimp) fisheries, while women dominate bivalve and gastropod fisheries (Figure 6.6). These gender differences are closely linked to where and how women and men fish, and how these overlap with the availability of aquatic species. The resulting differences in access to various species can in turn shape how women and men benefit from their fishing activities. For example, in the United Republic of Tanzania, Zanzibar, sea cucumbers are highly targeted by both men and women; however, all the species of sea cucumber with high market value are fished and sold by men (Eriksson et al., 2010; Eriksson, de la Torre-Castro and Olsson, 2012). In other contexts, such as the Central Philippines, the species targeted by women (such as shellfish) have the lowest economic value at one-fifth the value of fish, and almost one-tenth the value of crab and shrimp (Kleiber, 2014).

²⁹ Defined in this case as fisheries where the activity is done on foot, without the use of boats. It therefore includes but is not limited to activities such as those in coastal and inland fisheries in India, where women use their feet to gather clams or feel for fish.

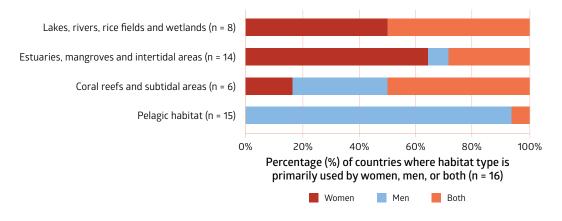
³⁰ Women's fishing methods, such as gleaning by walking on reef flats, may also cause ecological damage, so it should not be assumed that ecological damage is gendered.

Figure 6.4 Fishing gear used by women and men in 17 IHH country and territory case studies in 2020, by eight gear categories



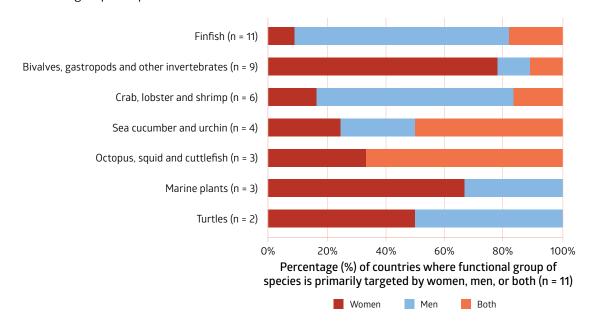
Notes: The sample size for each gear category is the number of countries with gender-disaggregated data on gear use. The information presented here was provided by IHH gender advisors.

Figure 6.5 Fishing habitats used by women and men in 16 IHH country and territory case studies in 2020, by four habitat categories



Notes: The sample size for each habitat category is the number of countries with gender-disaggregated data on fishing habitat. The information presented here was provided by IHH gender advisors.

Figure 6.6 Species primarily fished by women and men in 11 IHH country and territory case studies in 2020, by seven functional groups of species



Notes: The sample size for each functional group is the number of countries with gender-disaggregated data on fished species. The information presented here was provided by IHH gender advisors.

6.5 Beyond gender in understanding access to nutritional benefits of small-scale fisheries

Access to small-scale fisheries is not evenly distributed, and a lack of attention to gender and other identity factors in fisheries policy and practice may perpetuate such inequality (Ferguson, 2021). This section provides insights for understanding how social differences influence who has access to – and who subsequently benefits from – small-scale fisheries, illuminating the need to go beyond gender and focus on other aspects of identity when gathering data on small-scale fisheries actors and beneficiaries.

6.5.1 Nutritional benefits from smallscale fisheries

"Hidden hunger" refers to a deficiency in micronutrients often found among women of reproductive age and children under the age of five (O'Meara *et al.*, 2021). The nutritional value of fish, whether obtained from small-scale fisheries or other sources, plays a crucial role in addressing this hunger (see Chapter 7 on nutrition), especially for certain regions of the world (FAO, 2020d; Thilsted *et al.*, 2016) and certain populations (Bennett *et al.*, 2018). Women during certain life stages and young children experience greater nutritional needs than men, yet have insufficient access to fish from which to obtain these vital nutrients (O'Meara *et al.*, 2021), and this can have ripple effects across generations. Some evidence highlighted in this study by the gender

advisor for Nigeria indicates that, "compared to women, men characteristically derive more nutritional benefits [from small-scale fisheries] because they are served the greatest portion of the fish in the household" (K. Fakoya, 2020, Gender Advisor, Nigeria), a finding that is in line with an earlier study of intrahousehold fish consumption and distribution in the country (Gomma and Rana, 2007). Previous work has highlighted the variation in nutrient content of fish and aquatic foods (FAO, 2020d), and now there is increased focus on equity issues and access to aquatic foods (Blue Food Assessment, 2021b; Hicks et al., 2019). However, there is still a lack of data on access to the food security and nutritional benefits of small-scale fisheries disaggregated by gender and other identity factors, data which are paramount for developing targeted programmes that can improve women's access to these critical benefits.

6.5.2 Beyond gender in understanding differential access to small-scale fisheries benefits

Insights shared by gender advisors from 17 CCS suggest that access to small-scale fisheries is influenced by gender but also by intersecting identity factors, such as ownership of capital, land or equipment; age; class; ethnicity; education; kinship ties, social networks or

cooperative membership; marital status; migration status; religion; and indigenous identity. These factors vary greatly across contexts. For example, in the Gambia, class, ethnicity, marital status, migration status and age are highly relevant in shaping access to fisheries opportunities and their associated benefits (A. Fent, 2020, Gender Advisor, the Gambia). Likewise in coastal Kenya (Matsue, Daw and Garrett, 2014) and Lake Victoria (Medard, 2012), marital status is a factor in employment, as seen in the high proportion of female fish processors who are single, divorced or widowed. In Malawi, less-educated, resource-poor women fish traders are concentrated in smaller rural markets and face greater barriers to obtaining fish (Nagoli, Binauli and Chijere, 2018). Similarly, in Bangladesh, Muslim women fishers from wetland regions have inferior access to semi-urban markets than Hindu women fishers from the coast (Deb, Emdad Hague and Thompson, 2015). Furthermore, a high

proportion (80 percent) of marine and inland catch in small-scale fisheries is mediated by licensing (see Chapter 8 on governance), which requires fishers to navigate bureaucratic processes where gendered roles and responsibilities in many cases put women, and especially certain groups of women, at a disadvantage for gaining recognition as small-scale fishers while also fulfilling their domestic responsibilities. In these cases, membership in fisheries organizations may be a critical entry point for overcoming barriers to access.

Taken together, these insights reinforce the need to explore gender further and beyond to understand the multiple, overlapping and compounding factors that differentiate people's abilities to participate in and benefit from small-scale fisheries, including the potential for small-scale fisheries to support food security, and especially to prevent further marginalization of those already at risk of malnutrition.

6.6 Women in small-scale fisheries governance

[W]omen have not had a strong voice in fisheries management and governance, but not for lack of trying.

(H. Hapke, Gender Advisor for India, personal communication, 2019)

As seen in this study, women's access to small-scale fisheries decision-making forums is often limited. The number of women and men participating in decisionmaking and governing institutions is not often tracked. The IHH governance cluster (see Section A.1.2.3 in Annex A) documented 707 fisheries civil society organizations (CSOs), of which 127 (18 percent) provided genderdisaggregated data on leadership or membership (see Chapter 8). Among these 127, the proportion of women members ranged from < 1 percent to 100 percent (mean = 44 percent, median = 35 percent). However, it may be that gender-disaggregated data is more likely to be collected in institutions that are more gender-inclusive, meaning that these CSOs may not be representative of the other 580 that did not provide genderdisaggregated data.

This study only found a very small amount of quantitative gender-disaggregated data on the representation of women as leaders and members of small-scale fisheries organizations. However, the IHH gender advisors were able to provide qualitative information on the barriers to women's participation as well as their agency in decision-making processes.

At the national level, five of the gender advisors found strong engagement from women in small-scale fisheries governance. In the Philippines, Saint Vincent and the Grenadines, and Spain, women occupy 46–70 percent of national and regional fisheries leadership positions.

While no numbers were available for Greenland, "women play a majority role in the management of fisheries and their governments" (H. Snyder, 2019, Gender Advisor, Greenland), which reflects the overrepresentation of women in Greenland government positions overall. In Peru, women's participation was also described as extensive.

At the subnational organizational scale, numbers from Malawi (43 percent women) also indicate significant levels of participation from women in governance. Likewise, in Nigeria and Ghana women's involvement is concentrated in post-harvest organizations, where they dominate (Aduomih, 2019; Akintola and Fakoya, 2017; Bilecki, Torell and Owusu, 2015). However, in Senegal, women's inclusion in the Local Artisanal Fishery Councils is limited because women's roles, and thereby their right to leadership representation, are limited to the post-harvest segment (USAID, 2017), illustrating that strong representation of women in one segment does not necessarily translate into overall inclusion in small-scale fisheries decision-making overall.

The gender advisors identified several access barriers for women in small-scale fisheries governance. First is the assumption that women do not fish, and are therefore at best peripheral stakeholders in fisheries governance (C. Pedroza, 2019, Gender Advisor, Mexico). This is then reflected in male-dominated fisheries organizations and further reinforced by development policies that are narrowly focused on fisheries production (N. Gopal and H. Hapke, 2019, Gender Advisors, India). Additionally, social and cultural norms can suppress women's voices and hinder their active participation (A. Choudhury, 2019, Gender Advisor, Bangladesh), making it more difficult for them to have an influence on patriarchal systems (S. Mangubhai, 2019, Gender Advisor, Fiji).



In the cases where women are engaged in management and governance processes, this is often in a limited capacity. In Bangladesh, a gender focal point has been appointed to each ministry, but this role does not have decision-making power (A. Choudhury, 2019, Gender Advisor, Bangladesh). Similarly, in Mexico, there are women researchers in the national fisheries institute, but very few in decision-making positions (C. Pedroza, 2019, Gender Advisor, Mexico). Even women who do occupy leadership positions may not have the ability or interest to prioritize policies that support women's involvement in fisheries (J.L. Johnson, 2020, Gender Advisor, Uganda). The lack of women's participation in governance was also noted in Madagascar, where women are peripheral in decision-making processes, and management measures effectively deny them access to their fisheries (Baker-Médard, 2017).

6.6.1 Gender in fisheries policies and implementation

In this study, 17 gender advisors described how gender was included in their national fisheries policies. Of those, nine advisors reported having fisheries policies that were gender-blind, meaning that gender was not mentioned in any way in the document. Gender-blind fisheries policies often are not gender-neutral in their effect on women and men. In many cases this is due to the fisheries that are included under the purview of a given fisheries

policy, as some leave out sectors where women most often work (see Chapter 8). For example, in Brazil, unemployment benefits are only given to those who fish, and do not include "fishing support activities" such as fish processing, where women tend to work (L. Hellebrandt, 2019, Gender Advisor, Brazil). This exclusion of women's activities from the scope of fisheries rights and regulations has direct impacts on the benefits women receive. For example, previously in France, women's informal contributions to fisheries, such as administration, repairing fishing gear and selling fish, did not accrue the same state benefits as fishing (Frangoudes and Keromnes, 2008). This was then changed by the Collaborative Spouse Status Act, and women engaged in these activities are now eligible to receive the same retirement benefits as the men who fish. Norway offers another example, where policies to allow for younger entrants into the quota system effectively eliminate women, because women are less likely to have the capital to buy boats until they are too old to meet the age requirements (Gerrard and Kleiber, 2019).

Gender-blind policies can also reinforce a status quo of exclusion. For example, in Mexico, by law women and men have the same rights, but the national fisheries policies are gender-blind, and hence do not include language on gender equity. In many cases men use this omission of gender equity language to exclude women from fishing and governance activities (C. Pedroza, 2019, Gender Advisor, Mexico). In Nigeria, while there is no gender policy specifically



for fisheries, policies targeting women in fisheries are embedded in broader agriculture and food production sectors, such as the Women in Agriculture policy responsible for extension and advisory services. However, these interventions have focused mainly on the post-harvest activities that are assumed to fulfil women's needs. Hence this has only reinforced the status quo of women remaining in their traditional roles and socially acceptable domains, such as that of the household (Fakoya, 2020).

Three gender advisors reported having national fisheries policy documents that included the words "gender" and/or "women", but that failed to provide – and further mandate – for inclusion or equity. For example, in Uganda, the national fisheries policy mentions women six times but only in generalities, as a nod to their needed inclusion. Moreover, the policy does not include any clear guidance as to what is meant by inclusion, nor how it should be achieved (J.L. Johnson, 2019, Gender Advisor, Uganda). This reflects a pattern also found in the Pacific Region where integration of gender commitments within national-scale fisheries policies tends to be diluted, tokenistic and largely aspirational (Lawless *et al.*, 2021).

The remaining five gender advisors reported having national fisheries policies that included language that addresses gender equity or equality. For example, Bangladesh's Department of Fisheries 2006 National Fisheries Strategy has a subsection devoted to gender, and outlines strategies such as targeting women for training and fisheries

development opportunities, and in the collection of gender-disaggregated data. In Malawi, the overall government policy aims to include women, youth and men in all spheres of work without any discrimination (Manyungwa, Hara and Chimatiro, 2019). This is reflected in the Department of Fisheries policy, where one priority area is to increase focus on social development and decent employment in small-scale fisheries as well as promote gender equality as a prerequisite for the socioeconomic improvement and empowerment of small-scale fishing communities (Government of Malawi, 2016). In India, the National Policy on Marine Fisheries is the first fisheries-related instrument to make note of gender equity (N. Gopal, 2019, Gender Advisor, India). Finally, in Spain, some local-level policies, such as in Galicia, include artisanal fisheries regulations that are more gender-inclusive, with instruments to address gender violence, reach gender balance, and prioritize access of women to under-represented fishing practices (D. Salgueiro Otero, 2019, Gender Advisor, Spain).

Even in cases where policies address gender equity and equality, systemic and institutional barriers to implementation typically remain (Mangubhai and Lawless, 2021). For example, in Ghana and Malawi, gender strategies and policies have been unable to contend with larger systems of gender inequity. Malawian women do not own assets such as boats, engines and fishing gear, which is largely a result of unequal inheritance and legal rights – even on assets owned by their male relatives (Nagoli, Binauli and Chijere, 2018).

6.7 Committing to gender inclusivity and equality in small-scale fisheries

6.7.1 Moving away from gender-blind approaches to small-scale fisheries

As illustrated in this study, gender-disaggregated fisheries data are still rare, especially in official national-level statistics. Data collection methods are commonly gender-blind or gender-biased, which tends to overlook the contributions of women (Kleiber, Harris and Vincent, 2015). In turn this leads to policies, programmes and management being designed with only men's experiences and roles in mind. For data collection to accurately represent the experiences of the millions of people (men, women and children) involved in and/or dependent on small-scale fisheries, specific, targeted categories are required. The ways in which fisheries activities and workers are defined is critical, as these directly influence where future efforts, energy and resources are to be focused. "Without the right categories, the right data can't be collected. And increasingly, without the right data, there can be no social change" (D'Ignazio and Klein, 2020). The lack of genderdisaggregated data limits opportunities to improve livelihoods, food security and nutrition, and agency in governance, resulting in gender inequalities becoming more deeply entrenched or widened. To advance gender equality and counteract the structural devaluation of women and their contributions, knowledge and priorities, a foundational shift is required to acknowledge and value all small-scale fisheries actors and their management needs.

6.7.2 Reframing small-scale fisheries to include all activities and actors

Using labour force surveys and household income and expenditure surveys from 78 countries, this study found that 44.7 million women worldwide participate in small-scale fisheries value chains or subsistence activities (Table 6.2), representing 39.6 percent of the total number of people employed or engaged in the subsector. The study approach highlighted aspects of small-scale fisheries that are less visible, such as foot fishing and informal trade, which are also dominated by women. In focusing on these activities, the study has helped to rebalance commonly skewed national views of fisheries and food systems so that they include all activities and actors, both women and men. This is a needed precursor to other, deeper changes that would progress gender equality, as is called for by the SSF Guidelines and SDG 5.

6.7.3 Embracing gender-inclusive approaches throughout all dimensions of small-scale fisheries

Prioritizing gender equality in fisheries not only changes how fisheries are understood (e.g. which activities are important, who contributes, who benefits, who gets to make decisions), it also changes how fisheries institutions, research and actions are shaped. This requires acknowledgement of and engagement with existing power structures that currently reinforce the status quo, including genderblind approaches to small-scale fisheries (Figure 6.2). The shift to a gender-inclusive approach (Figure 6.3) is fundamental to operationalizing the human rightscentred vision of the SSF Guidelines, which provides a leading example of how strong integration of SDG 5 (Gender equality) with all other SDGs is required for the equitable governance of natural resources. While there is no single or "correct" entry point for this shift, several key actions are outlined below that are necessary in making the transition. If acted upon, these actions would accelerate meaningful progress towards gender equality in small-scale fisheries, as articulated in the SSF Guidelines and SDG 5.

1. Start with gender disaggregation as a minimum requirement. The guest to

understand the full scope and value of small-scale fisheries is inextricably linked to efforts to uncover, catalogue and quantify the contributions of women and men in this subsector. Gender-disaggregated data is a minimum requirement for quality, complete data, as is recognized in the SSF Guidelines (FAO, 2015). This minimum requirement was reinforced in 2021 by the FAO Committee on Fisheries, which "reaffirmed the importance of FAO's role in collecting, analysing and disseminating statistics on fisheries and aquaculture, including gender-disaggregated data when possible, and requested FAO to inform Members on additional needs to improve data collection systems, in particular for small-scale and artisanal fisheries and aquaculture" (FAO, 2021d). However, gender-disaggregated data are not sufficient to explain the patterns that emerge in how men and women contribute to and benefit from small-scale fisheries. Deeper gender research is also required to identify the (frequently invisible) norms, relations and beliefs held by individuals and societies that constrain or enable women and men differently, including the ability to access, participate in and

benefit from fisheries and the management thereof (Lawless *et al.*, 2019; Wosu, 2019). To understand these gendered patterns there is a need to dig deeper into invisible "rules of play". This will require the collection of qualitative data that is sensitive to local circumstances, using standardized but flexible protocols and purposive sampling techniques, and designed and adapted locally by gender experts (Locke *et al.*, 2017). Research approaches should also specifically identify access barriers to resources and governance structures that women and men face along the fisheries value chain (Cole *et al.*, 2020; Kaminski *et al.*, 2020).

2. Re-evaluate how small-scale fisheries are characterized and studied. To ensure that all types of fishing activities are captured in data collection and monitoring processes, it is important to include fishing methods or gear (including foot fishing) that women typically employ (Kleiber, Harris and Vincent, 2015; Kronen and Vunisea, 2009). Likewise, sampling should include the entire fisheries value chain and subsistence activities, which requires the quantification of all pre- and post-harvest segments and activities, whether these are paid or unpaid (Harper et al., 2020). Accordingly, this chapter has highlighted those fisheries activities and actors that are usually hidden from policy- and decisionmakers. Yet more work is still needed to uncover the full extent of the employment and subsistence activities involved in small-scale fisheries, including care work, which will require inclusive data sampling strategies in order to succeed. For example, local knowledge should be included in the research design process so that survey questions use correct terminology, and both women and men should be surveyed to prevent gender-biased data collection. In addition, to ensure both women and men are comfortable providing information, both need to be trained as data collectors (Adeokun and Adereti, 2003). Other inclusive data sampling strategies include collecting data from randomly selected individuals or households (again being careful not to only ask men), and discussing with women and men the nature of their pre-, post- and harvesting activities to inform sampling strategy design (i.e. survey timing, respondents, geographics).

3. Enhance capacity for gender-inclusive small-scale fisheries data collection and analysis. While commitments to gender equality and the empowerment of women are increasing (e.g. within the SSF Guidelines and in national fisheries policies), actual gender-inclusive practices within fisheries institutions and organizations remain limited. In order to provide an enabling environment for impactful actions on gender equity and equality, the gender capacity gaps in the institutions and agencies tasked with the management of small-scale fisheries (at multiple scales of governance) need to be addressed, especially in the data collection

process. The integration of gender throughout this process requires buy-in and support from the entire institution. Having requirements that all research involving humans include a gender analysis is one way to accomplish this, but this also requires monitoring to verify those requirements are being met. Progress on developing capacity and on commitments to advancing gender equality should be assessed through gender audits that employ institutional reflexivity exercises and processes (Danielsen et al., 2018). For example, the IHH study recorded the gender of its research team, helping to inform improvements on future processes (see Chapter 8). Furthermore, to support the integration of gender into small-scale fisheries research and management, gender experts (both women and men) should be included as part of research, management and practitioner teams. Women hired in other roles (fisheries scientists, economists, etc.) should not be expected to be gender experts, and gender experts should not be expected to focus on internal equity issues. Furthermore, it is essential that these experts be hired at a level where they have enough authority within the organization to successfully advocate for gender inclusion in research.

4. Develop policies and actions that are guided by the ultimate goal of gender equity and equality, as articulated by the SSF Guidelines (FAO, 2017b; Kleiber et al., 2017). The urgency for understanding and addressing gender within the small-scale fisheries subsector is reinforced by commitments made in international, national or subnational policies. Policies that do not mention women or gender at all may still have disproportionate impacts on women or men. Gender-inclusive policy, on the other hand, sets clear priorities and goals for gender equity and equality in terms of the governance and livelihood aspects of small-scale fisheries. This kind of policy aligns with human rights-based approaches, as seen in the SSF Guidelines (FAO, 2015) as well as regional policy guidelines (SEAFDEC, 2018). Ensuring that policies are inclusive and reflect a shift towards greater equity and equality requires clear commitments, principles and strategies. Hence gender equity and equality needs to be made an explicit goal in policy and/ or activity design, implementation and evaluation (CGIAR, 2017). Otherwise, there is a risk that genderinclusive policy will only be considered important if it furthers other goals (Lawless et al., 2021), or that women's inclusion will be compartmentalized - and then ignored. Moreover, making the goal of gender equity and equality explicit increases the likelihood of implementing the necessary actions, strategies and monitoring needed to achieve it.

Required citation for this chapter:

Harper, S., Kleiber, D., Appiah, S., Atkins, M., Bradford, K., Choudhury, A., Cohen, P.J., de la Puente, S., de la Torre-Castro, M., Duffy-Tumasz, A., Fakoya, K., Fent, A., Fröcklin, S., Gopal, N., Gough, C., Gustavsson, M., Hapke, H.M., Hellebrandt, L., Ferrer, A.J., Johnson, J.L., Kusakabe, K., Lawless, S., Macho, G., Mangubhai, S., Manyungwa-Pasani, C., McDougall, C., Ojea, E., Oloko, A., Pedroza, C., Randrianjafimanana, T., Rasoloniriana, R., Robson, L., Romeo, C., Salgueiro-Otero, D., Snyder, H., Soejima, K. 2023. Towards gender inclusivity and equality in small-scale fisheries. In: FAO, Duke University & WorldFish. 2023. *Illuminating Hidden Harvests: the contributions of small-scale fisheries to sustainable development*. Rome, FAO; Durham, USA, Duke University; Penang, Malaysia, WorldFish.