

# Why Gender Matters for Sustainable Fisheries and Aquaculture

Nikita Gopal

Extension, Information and Statistics Division

ICAR-Central Institute of Fisheries Technology, Cochin

## Introduction

Gender is a very important developmental issue and this is reflected in the inclusion of with Gender Equality as a key SDG (SDG5- Gender equality, with a goal to achieve gender equality and empower all women and girls) (<https://sdgs.un.org/>). The targets address several facets of inequality that women face in communities and societies around the world, including systemic ones that need interventions to ensure that the core principle of gender equality is achieved. While examining the progress in achieving the targets, it can be observed that while there have been positive changes, the progress on structural issues at the root of gender inequality is insufficient. And it is often these structural issues that continue to perpetuate gender inequalities. There are various forms of societal, legal, political and economic discrimination that continue to disadvantage women. Policies that address larger developmental needs like poverty and unemployment often tend to be gender neutral or rather gender-blind, while in fact needs, impacts and potential solutions may all be gender specific. Added to this, global shocks, either natural or man-made, exacerbate inequalities further as the recent COVID-19 pandemic has shown (World Economic Forum<sup>1</sup>, 2021). Strategies to combat disruptions and shocks, just like policies, also are generally gender neutral, leading to further disadvantaging women. Gender equality is also a guiding principle in the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (FAO, 2005).

Though several decades of research and advocacy have gone into bringing these issues to the forefront, there is still the need for greater understanding, recognition and action. Overall, India ranks 140 among 156 countries in the Global Gender Gap Index 2021. Further in the sub-indices, India is ranked 151 in the Economic Participation and Opportunity, 114 in Educational Attainment, 155 in Health and Survival, and a positive indicator in Political empowerment where it is ranked 51. The report further observes that economic opportunities for women are extremely limited in India (22.3%) and the gender gaps tend to widen together with seniority levels (World Economic Forum<sup>2</sup>, 2021). Some of the data could also be missed as there is no mechanism to count women's work, like in fisheries and aquaculture sectors. Data point out that in India about 50% of adult population in marine fishing communities are women and about 30% are employed in the sector. This is probably underreporting or a reflection of the data-insufficiency, as the same data set indicates that about 60% of wild seed collectors and 70% of allied workers are women. The allied sector is diverse and has several types of activities all of which are crucial inputs to the functioning of the fish value chains like net making and mending, traditional processing, marketing and commercial seafood processing etc. Globally, 50% of the 120 million in capture fisheries are women and out of 59.5 million people in the primary sector in fisheries and aquaculture, 14% in marine and 20% in inland sectors are women (close to 15 million women). Also about 90% of processing workers and 60% of fish vendors are women. In inland fisheries catch estimates the

underreporting is by about 70%, which was highlighted in the Illuminating hidden harvests work (Harper et. al., 2022).

### **Women in fisheries and aquaculture – data invisibility and policy blindness**

Fisheries and aquaculture are food production systems where women's activities are vital in India, just as in several other parts of the world. There has been an increase in academic and advocacy work in the recent past on gender in aquaculture and fisheries. There are studies being undertaken, associations being formed in various parts of the world taking up advocacy on gender issues in the sector and gendered impacts being included in most programme implementation. Yet, women continue to be invisible, increasingly marginalised and are facing the associated challenges that come with this exclusion and marginalisation. In small scale fisheries about one on four workers are women. Their fish work makes important contributions to food, nutritional and income security of households. Considering that women in the fisheries and aquaculture sector would probably form one of the lowest rungs of labour force they face greater inequalities and their contributions continue to be invisible. The poor recording of sex-disaggregated data has been a recurring issue, and is one of the key areas needing strengthening, not just in India but globally (GAFS, 2018). Data is fundamental for zeroing in on the issues and for supporting policies and guiding programmes. Fisheries and aquaculture related policies are generally aimed at increasing fish production and schemes and programmes are tailored to achieve that goal. Mechanisation/modernization, commercial aquaculture, mariculture and other capital intensive programmes are implemented for this. Both public and considerable private investments fuel this growth. These policies, programmes and schemes do not look at gendered impacts. And when women are not specifically integrated or thought about in these programmes, there is exclusion, which may not be intentional but is definitely a fact. When the commercial aquaculture started, women engaged in small scale aquaculture in small backyard ponds and who collected seed from the wild began to be side-lined. Their labour was found suitable in some activities, but very few of them could take advantage of the transformation and become aquaculturists having tenure rights over the farms. When ponds or reservoirs are leased out for fishing also, these are mostly to fishermen cooperatives or groups and though women are actively engaged in fishing in reservoirs they have no legal claim as fishers. The same applies to other development activities, like modernisation of markets, which does not take gender-specific needs into consideration in the development process; or upgradation of traditional processing methods like drying etc.

### **Recognising women's work in fisheries and aquaculture**

In fish value chains, women are found in all nodes, unlike previously considered to dominate only post-harvest. While they are rare in industrial fishing, their contribution to fish production is significant in small scale fisheries (Harper et. al., 2022). This is also true in inland fish production and in aquaculture where women are involved in several key production activities. Women in several countries are engaged, along with the menfolk, in harvesting fish (Gopal and Ananthan, 2021) and later also marketing the harvested fish.

There is sparse documentation of this and very little recognition of these types of fishing activities in fish production data. This in turn leads to lack of recognition of women as fishers

and thus leads to exclusion from production oriented and welfare programmes and schemes implemented by the State. Women themselves do not feel that the work they do is actually a contributor to fish production and perceive it as supplementary to the fishing activities that the men are engaged in.

Women dominate fisheries post-harvest. Women are key links in fish reaching the consumer as they engage in fish retailing. Traditionally when fishing was still small scale women were key players in landing places with their work starting right from sorting catches to marketing fish and processing excess fish through traditional methods like drying, smoking, fermenting and pickling. Much of this work however was seen as extension of reproductive roles and was not considered economic activity (except for marketing which brought in cash incomes). The dried fish they help produce also had economic value, however marketing of this is generally taken over by men, and women deal with sale of smaller quantities. The traditional fermenting is still a women centric and the products have been an important ingredient in household diets ensuring protein availability, but marketing at commercial scale is now being carried out by men.

### **Ensuring equality in access – technology, credit, markets, skill upgradation, opportunities**

Access to resources, technology, credit, markets and opportunities is essential to benefit from any economic activity. Traditional access that women had to common property resources like the fish, the beaches and economic activity spaces like markets is also being slowly lost. This is partly because of technology driven transformations in the sector which have bypassed fisherwomen. In marine fisheries for instance, fishing has become mechanized and is now carried out in farther and deeper waters over several days. Landings have also become centralised and harbour oriented from what was essentially at one time carried out in beaches near fishing villages. Though there are still several smaller beach landing centres, bulk of the landings have shifted to harbours, which are out of bounds for the women as they are located far away from fishing villages, commuting to which is additional expenditure. Women have also poor access to credit excluding them from the auctioning process. Women have thus been marginalised and now occupy fringe spaces in the points of first sale and have lost traditional access rights that they had to the fish which they used for household purposes as well for marketing domestically and processing if in excess and unsold. They now wait for their turn to source fish from larger traders or wholesalers before they can engage in marketing. Primary fish markets in India have space limitations considering the number of people frequenting them especially during peak landings which are generally confined to a few hours. All the jostling and pushing around also makes it physically perilous and unsafe for women.

Women in traditional aquaculture also made important contribution to household food security by producing for the family, besides for the market. Commercial aquaculture is basically monoculture or restricted to few commercially important species and is not available for the households of the labour force engaged in the activities. There are attempts to integrate tradition indigenous species into aquaculture systems so that these can be used for household consumption (Rai et. al., 2014), which can be adopted more widely in government schemes.

In formal wholesale and retail fish markets, which are owned by local bodies like municipalities or corporations or village governance bodies, and auctioned to private individuals, women have been relegated to insignificant places. There is growing male domination in fish retailing, and the women have to compete with the traders who can source frozen fish from other states and have a network to distribute them as also source fish locally due to links with the auctioners at the points of first sale. The marketing process may have become more efficient with the entry of bigger players with better resources and the demand in one place is being met by supply from another. However, women vendors who usually source fish on a day-to-day basis and deal in smaller volumes and operate in restricted areas are the ones being pushed out. Even today, basic facilities in markets like toilets are still non-existent; and rules like tax collection are arbitrary and opaque. These clearly disadvantage the women. Other externalities mentioned like inaccessibility of fish due to centralization of landings as opposed to landings closer to fishing villages, had already pushed women to the fringes of the distribution channels. Their bargaining power is also low and women vendors often get lower prices for the fish than male vendors (GAFS, 2018). Issues like harassment including difficulty in accessing public transport are common.

Dried fish production was primarily a women's job which was generally taken up during periods of excess catches that could not be absorbed into the fresh fish marketing chains. Sun drying on beaches was commonly practised and the dried fish sold during lean seasons for additional income and also used for household consumption. Beaches today have multiple uses and several stakeholders and the women are losing access to them. There is also sea erosion as a result of climate change and other anthropogenic activities. The shrinking spaces have made it difficult for women to engage in their traditional occupation. This has also led to nutritional insecurity of fisher households as they do not have sufficient access to fish to meet household food needs. This applies to both fresh and dried fish. While several technological innovations have been introduced for improving fish drying, like use of mechanical driers, the reach of these technologies to women is again constrained due to factors discussed above; lack of access to credit, training and technology.

Women also dominate seafood processing managing all floor-level processing activities. They are the backbone of the export-oriented industry globally. Disadvantages in wages and working conditions are common, and migrants who have very little say or negotiation skills dominate the labour market. The work is categorised unskilled and that is used as a reason to suppress wages, with it being linked to piece/count or weight processed. The physical conditions are also taxing having to spend hours in cold and wet conditions which are potentially hazardous.

### **Where are the voices of fisherwomen?**

Issues can come to the forefront only if the affected parties are allowed and have a space to voice them. No amount of advocacy on their behalf has an impact as much as when they speak for themselves. This can come about only if women have greater participation in decision-making at all levels. Often social and cultural norms impede women's participation, especially in matters that require decisions to be taken, whether at household or community levels. These norms are often difficult to change but have come about through legal provisions by the State.

For eg. the Panchayati Raj Act [The Constitution (Seventy-Third Amendment) Act, 1992] in India ensued that women got representation in local governance in India. This saw a change in women's participation in the political sphere, though several grass-roots level implementation issues remained and the question is whether it has brought about real change in socio-economic and political conditions (Mohanty, 1995). However over the years it has been noticed that the provisions of the Act has brought in several women to the forefront of local governance. A similar pattern is not reflected in women's participation in fisheries management related institutions, mainly because it is considered a male domain. Most cooperatives have male dominated management with women hardly finding space as board members participating in decision making (Gopal et al., 2017). It is important to have legal provisions to include women in organisations/institutions and affirmative action to implement them. Women can bring in their perspectives and understanding, including on resource management and conservation, especially their knowledge in small scale fisheries. Degradation and loss of biodiversity adversely affects fishing communities and women's perspectives are also equally important for sustainable development which has long term impacts on sustaining livelihoods and poverty reduction. The impacts of and response to shocks are also always gendered (Defiesta and Badayos-Jover, 2014) and women need to be included in the search for solutions as some of their needs are unique, although some might be common. When disasters strike men often migrate in search of livelihood and the women are responsible for meeting family needs. These call for greater inclusion of women in decision-making processes. There are also other inter-sectionalities at play, which may include religion, class and caste, that complicates inclusion.

There is also poor organisation of women workers in fisheries and aquaculture, and they function in the informal economy which continues to be unregulated. Women thus face exclusion from state schemes that would have benefitted them otherwise. The SHG model has been implemented by states and women SHGs have been formed and encouraged to take up productive activities. Another form of organisation includes membership in fisher cooperatives. Even in cooperatives the extent of credit support that women receive is proportionately less than the men. While men receive credit for purchase of fishing implements, women's credit schemes are often smaller in scale and they continue the same biases that they face socially, with their work considered supplementary to men's work. Productive activities are expected or assumed to be smaller and just above subsistence levels, rather than entrepreneurial. NGOs fill this space but their activities though important, tend to have localised impacts. The fish enterprises that women run are thus smaller and have limited scope for expansion commercially. Small scale vending or processing does not offer them the economies of scale to expand through further investments for upgradation. When the fishing and fish processing begins to get bigger, it is the men who dominate such

While women represented 39 per cent of world employment, only 27 per cent of managerial positions in the world were occupied by women in 2018, up only marginally from 26 per cent in 2015. The proportion of women in management has increased since 2000 in all regions except in least developed countries.

Source: <https://sdgs.un.org/goals/goal5>

enterprises. In a study on top levels of management in seafood factories, it was found that only 4 % of women reached the very top as CEOs (WSI, 2020), and even at levels below that they were in a minority. At the floor-level, ‘unskilled’ work was done almost entirely by women, both local and migrant. This floor-level work offers low wages and has no job security, with most women being hired on contractual basis.

### **Potential solutions and Action – integrating gender**

Actions have to be looked at from various levels. An overarching policy to achieve the larger goal of gender equality in fisheries and aquaculture, for ensuring equity in opportunities and benefits from the sector is essential. Empowerment in terms of choices that are available to fisherwomen with regard to their livelihoods, involvement in decisions regarding the sector as a whole, and a say in matters that have a direct or indirect bearing on their lives is to be ensured.

From the policy perspective, before developing policies, programmes and schemes the existing activities and the actors (women and men) need to be clearly delineated and identified, and the impacts on each of these activities and actors needs to be assessed to factor-in alternatives. This can prevent the marginalisation of fisherwomen from fish value chains, as is increasingly being observed. Policies are always data driven and the invisibility of women stems from the lack of supporting data on their involvement in the sector. The need for collection of sex-disaggregated data in fisheries and aquaculture has been pointed out in several studies. Even when International bodies like FAO have mechanisms to collect such information, responses from nations are not uniform or adequate in many cases. At national level mechanism has to be evolved to streamline data generation so that there is standardisation and robustness is ensured leading to better policy and management decisions.

Legally there is also need for formal recognition as fish workers and equal access to benefits that will accrue from government schemes and from the activities that they are engaged in. Welfare Schemes require formal recognition as fishers and by excluding a large section of the community from this legal recognition, prevents equity in sharing of benefits that women are entitled to. There is need to ensure tenure rights for women in fishing and fish farming. This extends to rights to fish in reservoirs and other water bodies. Improving access to technology, capacity building, credit and other resources is required to ensure women’s engagement in economic activity in fisheries and aquaculture. Job security, equal opportunities for growth, opportunities for collectivisation and action are all important.

Marketing is a domain where women work in large numbers. Streamlining marketing activities and infrastructure, and ensuring women safe and secure access to these spaces is very important. Sufficient access to credit to enable participation at all levels of marketing including primary markets is also to be ensured. To enable women to compete with male counterparts, skill development in using 2 and 3 wheelers that can extend there are of operation and can also be time saving is essential and specific State schemes are required for this. Access to modern marketing technologies and strategies is also essential that requires capacity building. Women are already on their own using mobile phones to reach consumers, but they can be equipped to enter into the e-marketing space. Women vendors need to ply their trade in safe and secure environment and this requires strong legal protection. Licensing

for fish vending work is to be introduced. Just like in marketing, in other activities along fish value chains, safe work spaces must be ensured so that women can carry out activities with dignity and confidence. New collectives or increased participation in existing collectives need to be built through State or non-State supported actions, so that the voices of women are reflected in decision-making in fisheries and aquaculture on all aspects as all activities affect the participation of women, either directly or indirectly.

## References

1. Defiesta, G. D., & Badayos-Jover, M. B. (2014). Do catastrophes exacerbate gender bias? An analysis of coastal women's experiences of economic marginalisation in a disaster context. *Asian Fisheries Science*, 27(Special Issue), 97-109.
2. FAO .(2005). voluntary-guidelines-small-scale-fisheries  
[\\_https://www.fao.org/voluntary-guidelines-small-scale-fisheries/en/](https://www.fao.org/voluntary-guidelines-small-scale-fisheries/en/)
3. GAFS.(2018). Fishing for Equality: Why gender matters in aquaculture and fisheries  
<https://www.genderequality.genderaquafish.org/>
4. Gopal, N. and Ananthan, P.S. (2021). workers in small scale fisheries in India, paper presented at the webinar 'Women Work in Fisheries, Too!', November 29, 2021, organised by GAF Section and SUFIA Project of the USAID Regional Development Mission Asia, ICAR-CIFT and SOFTI
5. Gopal, N., Jeyanthi. P, Chandrasekar V. , Arathy Ashok .(2017). Assessment of Role and Impact of Fisheries Co-operatives in Enhancing the Livelihood and Resource Management Capabilities of Fisher folk in India, Report of the NABARD funded project on Fisheries Co-operatives, ICAR-CIFT
6. Harper, S., Kleiber, D. and Gopal, N. (2022). A first look at findings on gender and small-scale fisheries by the Illuminating Hidden Harvests project, SPC Women in Fisheries Information Bulletin #35, March 2022, p.4-5
7. <https://sdgs.un.org/goals/goal5>
8. <https://www.india.gov.in/my-government/constitution-india/amendments/constitution-india-seventy-third-amendment-act-1992>
9. Inaotombi, S. H. A. I. K. H. O. M., & Mahanta, P. C. (2016). Fisheries related traditional knowledge of Meitei community of Manipur, India. *Asian Fish Sci*, 29, 181-91.
10. Mohanty, B. (1995). Panchayati Raj, 73rd constitutional amendment and women. *Economic and Political Weekly*, 3346-3350.
11. Rai, S. U. N. I. L. A., Thilsted, S., Shrestha, M. K., Wahab, M. A., & Gupta, M. C. (2014). Carp-SIS polyculture: A new intervention to improve women's livelihoods, income and nutrition in Terai, Nepal.
12. World Economic Forum<sup>1</sup>.(2021).
13. WSI (International Organisation for Women in the Seafood Industry).(2020). Women in top seafood management: modest improvement\_ <https://womeninseafood.org/>