

A Snapshot:

"Imagine how happier we would be, how much freer to be our true individual selves, if we didn't have the weight of gender expectations."

Chimamanda Ngozi Adichie, from the book *We Should All Be Feminists*

Aquaculture and Small-Scale Fisheries play an important role in the livelihoods and diets of Nigerians

Aquaculture and small-scale fisheries contribute to ~2% of the national GDP

Fish and aquatic foods in Nigeria are supplied from imports (45%), capture fisheries (38%), and aquaculture (17%)

Average national fish consumption is ~11.2 kg/person/year (~ 50% of the global average).

(Subasinghe et al., 2021)

Gender in the spotlight in Nigeria

In aquaculture: Women and men are involved in all nodes of the aquaculture value chain (Velieu et al., 2009), but the value chain activities are highly gendered. Women are more involved in post-harvest activities, while men tend to dominate in fish farming activities (Adeoye et al., 2020; Turner et al., 2000; Okwukenye, 2020; Muhammad et al., 2016; Jaji, 2014). Men dominate roles such as fingerlings providers, other input providers (e.g., fish feeds), fish producers, wholesalers, and exporters, which tend to be higher profit roles. Women are primarily engaged at present as fishmongers, processors, and retailers (WorldFish & BoP Innovation Center, 2018), which are generally lower-profit activities (Subasinghe et al., 2021).

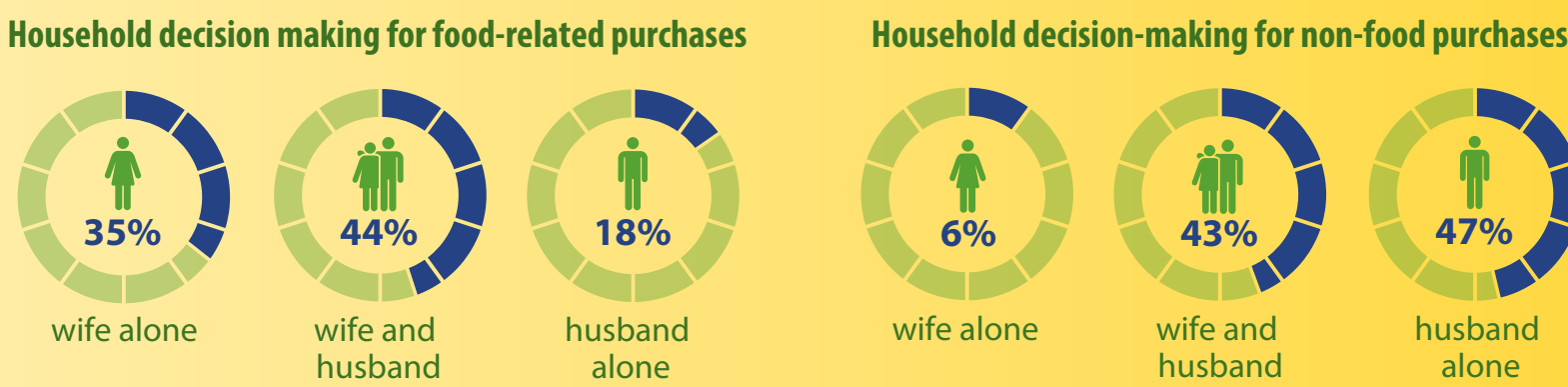
In small-scale fisheries: While men are mostly involved in the harvest sector of small-scale fisheries, women dominate the post-harvest activities, inclusive of hazardous fish value chain processes such as fish smoking (Shehu Latunji Akintola & Fakoya, 2017). In addition, women are also involved in pre-harvest activities and cooperative societies, especially those who undertake wholesale business, they are therefore able to finance fishermen by providing the needy fisherman with supply of fish inputs such as netting materials, engines and sometimes boats (Jenyo-Oni, 2007).

Women's contributions may be undercounted in national statistics and undervalued more broadly, however, as some of the work women do, such as net repairing, is seen as part of their household duties (Akintola et al., under review). Their contribution in fish value chains, and agricultural activities in general, is not proportionate to the benefits they get. This mainly emanates from the deep-rooted gender inequalities in social, cultural and economic factors, alternatively this can be referred to as the gender norms and practices (Omeje et al., 2021 Gbigbi, 2021; and Weeratunge-starkloff & Pant, 2011).

Key message:

Women play an important role in aquaculture and small-scale fisheries value chains, but the opportunities available to them are of lower profit compared to men and involve workplace health hazards.

In the household: Household decision-making power over incomes and household resources is gender imbalanced toward men, limiting women's agency. For instance, in married couples, while the wife has slightly more autonomy in food-related purchases, almost 50% of the time the husband alone makes the decisions about non-food purchases (Byrd et al., 2021). These gender-related barriers result in reduced opportunities for women to engage with and benefit from the post-harvest fish value chain on par with men.



When fish is consumed, men are sometimes given twice as large of a serving, compared with women. For example, in Lagos and Niger states, men consumed 24 kg/person/year, while women consumed 12 kg/person/year of fish (Gomna & Rana, 2007). However, during certain physiological stages (such as pregnancy and lactation) many women have a hard time meeting their nutrient needs (Adu-Afaruwah et al., 2017); thus they may need servings of fish equal to the men in the household.

Key message:

Power imbalances within households mean that women often suffer from a lack of autonomy in decision making and sometimes have inequitable access to the critical nutritional benefits of fish.

Gender inequality in fisheries and aquaculture must be urgently addressed from the household to the sector scale

Bottlenecks identified to achieving gender parity from aquaculture and small-scale fisheries perspectives	Proposed recommendations	Expected outcome
Social-cultural norms intertwine with value chain inefficiencies to curtail women's empowerment and gender equality by hindering their opportunities to participate and benefit from fish farming. For instance, gender divisions of labor often overburden women with reproductive roles, limiting their participation in fish farming due to time constraints (WorldFish and BoP, 2018; Omeje et al., 2020 and Tran et al., 2021).	Integrate gender transformative approaches (GTA) into sector programs and innovation processes (Promundo-US & CGIAR Research Program on Aquatic Agricultural System, 2016). These exercises engage men, women and boys and girls in safe, locally driven reflection in order to identify and address constraining gender norms and practices.	More equitable sharing of unpaid care and domestic work between genders in the household. Women will have additional time to pursue economic activities, including participating in the fisheries sector, if they so choose.
Lack of autonomy and decision-making power among women in the household (Byrd et al., 2021). Further, although women provide labor in fish farming activities, men who usually are the pond owners, are the main decision makers in several activities related to fish farming (Krujissen et al., 2018; Adebo & Alfred, 2008).	GTA (as above) and diversifying sources of income among women who rely on aquaculture or small-scale fisheries as their means of livelihoods, e.g., involvement in poultry/livestock keeping, tailoring clothes, owning a small to medium size shop, among others. Farmer groups are also an ideal opportunity for male and female to access credit and training with more ease, as have been evidenced in the Erwe Fish Village model (Abdullahi et al., 2015).	More equitable and collaborative decision making about aquaculture, finances, among others within households, as men are made aware of the inequalities they create in their households (through GTA). Women will be financially empowered and be able to retain a greater share of earnings from fishing and other activities.
In fish farming, women receive lower profits than men who are in the same business (Oyinbo & Mohammed, 2015; Ummuna et al., 2020; Olanike & Gbenga, 2013; Omi, 2021; Tran et al., 2021).	Form fish farming women's groups, and provide space for women in the groups to farm together. This has the potential to increase income and participation of women in farming (Olajunju et al., 2021; Omeje et al., 2021; Omi, 2021).	The income of women who are involved in fish farming will increase, reducing the gender gap in revenue collection from fish farming between men and women fish farmers. This also may entice more women to enter into fish farming.
Women have insufficient access to capital, limited access to land, inputs and other assets (Subasinghe et al., 2021).	Operationalize proven innovative savings and loans mechanisms targeted towards women, in order to allow more women to have their income to purchase their own assets/resources that they need to participate in the aquaculture and small-scale fisheries value chains (Promundo-US & WorldFish, 2016).	Women and men will be able to engage and benefit on a more equal footing in and along fish value chains, including in capital intensive roles.
Gender inequalities in accessing technical skills and knowledge for participation in the fishing industry (being able to participate at higher levels in production of fish/fishing and in the production of good quality processed fish products) (Subasinghe et al., 2021).	Increase opportunities for women to access technical skills and trainings of producing fish on their own, processing and marketing various fish products (WorldFish & BoP, 2018) through extension work, networks or cooperatives. These can both work around current mobility barriers (e.g., making trainings close to home) and aim to reduce barriers (through addressing imbalanced workloads, enhancing autonomy, enabling safe travel for women and girls).	Progress will be made on closing the profit gap between men and women in the fishing sector. Increased opportunities for engagement and knowledge sharing among women in the aquaculture and small-scale fisheries sector.

Citation:

Adam RI, Byrd K, Siriwardena S, Subasinghe R and McDougall C. 2021. Gender in Nigeria's aquaculture and small-scale fisheries value chains. Penang, Malaysia: WorldFish. Poster.

References:

Abdullahi MM, Adekoya B and Anyanwu PE. 2015. The Role of Cooperative Organizations in Fish Farm Development: A Case Study of Erwe Fish Farm Village Ijebu Ode Ogun State Nigeria. *Proceedings of 30th Annual Conference*, November 22-27. Abuja, Nigeria.

Adebo AO and Alfred SDY. 2008. Economic analysis of contribution of tilapia production and marketing to gender empowerment in Ondo and Ekiti states, Nigeria. In *8th International Symposium on Tilapia in Fish* (pp. 657-664).

Adeoye AS, Oke OO, Eniola O and Jatto KA. 2020. Assessment of gender roles in fish farming activities among rural. *Nigeria Agriculture Journal*, 51(2), 406-412.

Adu-Afaruwah S, Lartey A and Dewey KG. 2017. Meeting nutritional needs in the first 1000 days: a place for small-quantity lipid-based nutrient supplements. *Annals of the New York Academy of Sciences*, 1392(1), 18-29. doi: 10.1111/nyas.13328

Akintola Shehu L, Fakoya KA, Byrd KA, Westlund L and Cohen PJ. (n.d.). *The small-scale fishing industry in Nigeria: A snapshot*.

Akintola Shehu L and Fakoya KA. 2017. Small-scale fisheries in the context of traditional post-harvest practices and the quest for food and nutritional security in Nigeria. *Agriculture and Food Security*, 6(1), 1-18. doi: 10.1186/s40066-017-0110-z

Alawode OO and Oluwatayo IB. 2019. Development Outcomes of Fadam III among Fish Farmers in Nigeria: Evidence from Lagos State. *Evaluation and Program Planning*, 75(January), 10-19. doi: 10.1016/j.evalprogplan.2019.02.004

Byrd KA, Ene-Obong HN, Tran N, Dizyee K, Chan CY, Shikuku KM, Subasinghe R and Siriwardena S. 2021. *Dataset for the consumer study of the Nigeria Scoping Study*. doi: 10.7910/DVN/CNWS26

Gomna I, Eyo CO, Olajunju SO, Oluwasoyi KF, Alabi OF, Ganiy L and Ademuwagun AA. 2021. Assessment of participation level of rural women in fish farming in kaduna state, Nigeria. *Russian Journal of Agricultural and Socio-Economic Sciences*, 11(13), 141-149. doi: 10.18551/rjpas.2021-03.16

Omeje JE, Achike AI, Attahiru Mohammed Sule and Arene CJ. 2021. Gender Roles and Economic Differentials in Aquaculture of Kainji Lake Basin. *Research on World Agricultural Economy*. doi: 10.36950/rwae.v2i2.353

Omi S. 2021. Gender participation in aquaculture in lagos state, nigeria. *Ibadan Journal of Gender Studies*, nos 3 & 4.

Oyinbo O and Mohammed MO. 2015. Gender, water quality and catfish production for livelihood support: evidence from catfish farmers in Lagos state, Nigeria. *Troika Journal of Sciences*, 13(3), 222-227. doi: 10.15547/tjs.2015.03.004

Promundo-US and CGIAR Research Program on Aquatic Agricultural System. 2016. *Promoting Gender-Transformative Change with Men and Boys: A Manual to Spark Critical Reflection on Harmful Gender Norms with Men and Boys in Aquatic Agricultural Systems*.

Promundo-US and WorldFish. 2016. *The SILC-GTA Facilitation Manual: The Savings and Internal Lending Communities Plus Gender-Transformative Approach (SILC-GTA)*. <http://www.mangotree.org/files/galleries/SILC-GTA-Facilitation-Manual.pdf>

Subasinghe R, Phillips JM, Byrd KA, Tran N, Shikuku KM, Chan CY, Dizyee K, Nukpezah J, Steensma J, Fugere Z, Adekele L and Siriwardena S. 2021. *Nigeria Fish Futures: Report of the Scoping Study*.

Tran N, Shikuku KM, Cheong KC, Chan CY, Byrd KA, Dizyee K, Nukpezah J, Steensma J, Fugere Z, Adekele L, Subasinghe R and Siriwardena S. 2021. *Technical Report: Productivity and Profitability Performance of Aquaculture Production Systems in Nigeria*.

Turner RK, van den Bergh JCM, Söderqvist T, Barendregt A, van der Straaten J, Malby E and van Ierland EC. 2000. Ecological-economic analysis of wetlands: scientific integration for management and policy. *Ecological Economics*, 35(1), 7-23. doi: 10.1016/S0924-6460-0000164-6

Ummuna MO, Adebayo OA, Adedokun KM, Ibrahim AO, Sodiya OM, Ige O and Bussa N. 2020. Analysis of Gender Participation in Fish Farming in Borgu Local Government Area, Niger State, Nigeria. *KIU Journal of Social Sciences*, 6(4), 133-140.

Velieu A, Gessese N, Ragasa C and Okali C. 2009. Gender Analysis of Aquaculture Value Chain in Northeast Vietnam and Nigeria. *Agriculture and Rural Development Discussion Paper/44*. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/28276> License: CC BY 3.0 IGO

Weeratunge-starkloff N and Pant J. 2011. Gender and aquaculture: sharing the benefits equitably. *WorldFish Center Issues Brief*, 2011-32, 12 pp.

WorldFish and BoP. 2018. *Niches for female entrepreneurs in fish value chains in Nigeria*. Penang, Malaysia.

This research has been made possible thanks to the generous support of the Bill & Melinda Gates Foundation.