

## Overcoming gender inequalities in fish supply chains to inform policy and action

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“Gender equality thinking should not focus just on the numbers of women and men in fish supply chains”, said Gifty Anane-Taabeah (Ghana), the final panelist on Overcoming Gender Inequalities in Fish Supply Chains. The panel and two presentation sessions (Markets and Value Chains for Small Aquaculture Enterprises and Looking at Fish Supply Chains with a Gender Lens) were held on the first day of the 2012 conference of the International Institute of Fisheries Economics and Trade (IIFET) in Dar Es Salaam, Tanzania. Rather, Gifty contended, “the overall aim should be how to empower women and men in supply chains to boost overall productivity”.

This report draws on insights from a rich set of papers, panelists’ remarks and audience contributions from the three IIFET conference sessions, plus others from the session called Too Big to Ignore: Enhancing Visibility and Possibilities in Small-Scale Fisheries. The three fish supply chain sessions were convened and supported by the AquaFish Collaborative Research Support Program (CRSP), under the leadership of Hillary Egna who co-chaired the sessions with Meryl Williams.

The 2012 conference, the first IIFET conference held in Africa, was also the first to highlight gender in such a substantive way, although occasional studies relating to gender/women were presented in past conferences. “When I think back to when I joined IIFET in 1985, and now I look out at so many African women as new socio-economic role models here at IIFET 2012, I really feel that IIFET has come a long way on addressing gender”, said Stella Williams (Nigeria). Yet, she cautioned, much more is needed as technology and economic changes in traditional fisheries have eroded women’s role and contributions, which continue to be under-represented in statistics, studies and society. “But”, she emphasised, “we should never lose sight of what women can do. Although gender alone is not sufficient in explaining differences between management outcomes in different countries — none of which abides by the Code of Conduct

for Responsible Fisheries they have all voted for — we have evidence that women are not only victims of technological and global change, but do seize opportunities to stand their ground and bounce back. Satisfactory societal and conservation outcomes depend critically on greater equity and improved institutions”.

The IIFET 2012 gender papers covered global studies and work in West and East Africa and Asia. The contributions came from government policy-makers, academics and government researchers. They also drew on many different streams of scholarship, focusing economic and social analysis of value chains on development in aquaculture and fisheries and on poverty in small-scale fisheries. Gender differences in resource access rights, division of labour, access to capital and credit, measures of empowerment that affect power relations in the value chain and the concentration of power in the hands of certain actors and parts of the value chain were examined for fish products from tilapia and dagaa to groupers and tuna.

### Gender and fish value chains

“Women pervade fisheries in their roles as workers in fisheries, markets and processing plants and in non-fishery activities including as mothers who give birth to successors, as caregivers for the family, as connecting agents of social networks, among others and agents who share fisheries culture among the generations”, Achini De Silva of Sri Lanka reminded us. She reported on work done alongside the FAO-NORAD global small-scale fisheries value chain project. The study’s gender framework analysed 10 country/fishery/aquaculture cases for gender disaggregated activity profiles, access and control profiles, and analyses of factors and trends. Common patterns emerged in the intersection of gender and income/education. Less educated, resource poor women were concentrated in the low value end of the value chains; resource rich males and a limited number of educated, resource rich females occupied the upper end. Access to

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resources was key to design the women's role in the fishery value chain. Women are less engaged in modern value chains which have fewer nodes than the traditional complex and lengthier value chains. When women depart from fisheries to go to money earning positions elsewhere, the existence of local fishing cultures and industries is diminished.

## Africa

### West Africa

"Nigerian women are, and have been from very early times, the backbone of fresh and dry fish marketing. They do vending in rudimentary fish markets as well as carry fish for door to door sale", said Abiodun Oritsejemine Cheke, the Deputy Director in charge of Fish Trade, Federal Department of Fisheries, Nigeria Ministry of Agriculture and Rural Development. Recognising the importance of women's efforts, the Government has helped organise nearly all women vendors into cooperative societies, but a major ongoing constraint is lack of affordable finances for the cooperatives. To overcome this bottleneck, she announced that, through the Federal Ministry of Agriculture and Rural Development and the Central Bank of Nigeria, the Government announced it would extend the Nigeria Incentive-Based Risk sharing system (NIRSAL), presently used for agricultural lending, to the women in the various fish value-chain activities.

Funmilola Agbebi presented the results of a study of people in five fishing communities in Ilaje and Ese- Odo Local Government areas of Ondo State, South Western Nigeria. The study area falls within the oil producing states and all those interviewed were permanent settlers, not new immigrants. Fish value chain activities were the primary or secondary money earning occupations of most of the women. The activities, however, were beset by many problems, from supply, price and infrastructure difficulties, and the families existed at barely above the poverty level in this area, often referred to as the richest part of Nigeria.

In Ondo State, Nigeria, fresh fish marketing is predominately (73%) women's business, Lydia Adeleke found in a study of 45 marketers. The marketers were mainly young and although fresh fish marketing is profitable, it is concentrated and inequitable. The market suffers from several constraints, especially the high cost and variable supply of products, and would benefit from creation of gender-sensitive cooperatives.

### East Africa

The Kenyan Government has given national priority to aquaculture development and the sector is starting to develop strongly. Some of the

reasons were presented in papers on two studies. In one, Kwamena Quagrainie applied business guru Michael Porter's five forces industry analysis (threat of new competition, threat of substitute products or services, bargaining power of customers or buyers, bargaining power of suppliers and intensity of competitive rivalry) to the tilapia (chiefly *Oreochromis niloticus*) and catfish (*Clarias gariepinus*) aquaculture value chains in Kenya and concluded that women stood to gain most by the opportunities in the fish marketing segment of the value chain. The sale of fish enhances community relations and creates a stable source of income and food, and female participants had greater flexibility and liquidity for their operations. Women had less competitive advantage as input suppliers, fish farmers, or combined input suppliers and farmers.

In Kenya, women are also given opportunities in the public-private partnerships called Aquashops — conveniently located one-stop input supply and extension shops in farming areas. According to studies reported by Sammy Macharia, partnerships between women and between women and men have developed a variety of models and approaches to deliver essential services including linking clearly labeled inputs and products to markets and information technology services.

As a panelist, Nancy Gitonga provided a broad, gender-based overview of the Kenyan fish supply chain, noting that production is dominated by men and, although women are not permitted to go fishing due to cultural taboos, they can own fishing vessels. Kenyan women's strengths are in processing and marketing. Women are considered good fund managers, yet, in the fish sector, women's activities are often viewed through a welfare lens whereas men's are projected as businesses. Policies are needed to elevate the decision-making roles of women and to remove discrimination.

Sebastian Chenyambuga reported that in Morogoro Region, Tanzania, low aquaculture production of Nile tilapia (*O. niloticus*) is done in ponds owned by small-scale farmers. The ponds, which have been used at subsistence scale from at least 1949, are all owned by men, but women work to some extent in all the production phases and dominate the processing of the product for local sale (about 70% of the production).

In 10 fish markets scattered around Zanzibar Island, Sara Fröcklin and co-workers found that gender was a key dimension in fish trade. First, there was a major gap in terms of economic resources. Many of the male traders have been able to start up their enterprise with savings, while a majority of the women used micro-credits and loans as the initial source of funding. Gender inequalities were also found in terms of capital used and income

generated from fish trading activities; male traders earned almost twice as much per day compared to their female counterparts. Second, women travelled long distances to buy and sell fresh and sundried fish, often in the villages, whereas men tended to buy closer to home and sell at higher prices in the main markets, or occasionally within the tourist sector. Third, as a result of low capital, lack of cold storing facilities and limited number of customers, women traded mainly in lower value fish species. Men on the other hand dominated the trade with high-value species such as tuna, king fish, barracuda and sharks. Fourth, none of the female traders were members of any kind of fish trade related association, nor had knowledge about such a thing, whereas about one third of the men were involved. There was an overall wish for a committee, similar to a fisheries committee, targeting fish traders specifically. In conclusion, all traders reported that fish trade has improved their living standards and also benefitted the community. However, most of the female respondents still shared little decision-making power and a majority found it hard to compete with male traders at market spots, particularly in times of declining fish catches and increasing prices.

In Lake Victoria, the small sardine-like cyprinid *Rastrineobola argentea* and other related species (variously called dagaa in most countries, mukene in Uganda, and omena or the Lake Victoria sardine in Kenya) are now the second most important commercial species, after Nile Perch (*Lates niloticus*). With the growth of aquaculture and other demands for affordable fish, the value chains for this species are undergoing rapid transformation. Much dagaa is now lost by poor handling and post-harvest problems.

The east and central African trade in dagaa, reported Mwanahamis Salehe of Tanzania, has increased since 2006 and grown from two countries (Kenya and Rwanda) to eight countries in 2011, including Cambodia and Malaysia. The majority of exporters are men, but women are 12% of the exporters in Tanzania. Much better processing, business and management skills are required to avoid the nutritional and economic wastage currently undermining the trade.

In Uganda, sun-dried mukene (or dagaa, *R. argentea*) is predominately (80%) used for animal feed, according to Margaret Masette. Boat owners, fishers, processors and traders each operate at a number of scales and different gender disparities were found in the different stages of the value chain, largely related to the labour and capital intensity of the stage. Thus, for example, women dominated in carrying fish from fishers to processors because no capital was required, but workers of both genders operated in the artisanal and the industrial processing stages

where more capital was required. Fishers and processors earned the least profit from the value chain, whereas regional traders captured the highest profit rates (70–83%) and the lion's share of the total profit, from making the highest investments.

### Asia

Gender-based fish value chain analysis, according to Debabrata Lahiri, requires “understanding women's position in a value chain and what constraints women face means not only looking at the value chain but also at women's intra-household bargaining position and broader social processes”. In a study of Indian value chains for Indian major carps, tilapia, hilsha and shrimps, Lahiri found that women do not perform all the functions along the value chain, and where they do take part, their value addition is less than that of their male counterparts due to the lesser amounts of product they handle.

In three coastal regions of Kerala State, India, Shyam Salim studied women's economic, social, political and legal empowerment to create an overall Fisherwomen's Empowerment Index and applied it to women fish retailers, fish vendors, dried fish marketers and value-added fish producers. In terms of overall empowerment, the value added producers were highest and dry fish makers the lowest. The fisherwomen were more empowered than women in the agricultural sector. In terms of empowerment dimensions, political empowerment was highest and legal empowerment lowest.

### Gender and climate change in communities dependent on small-scale fisheries

In the IIFET session on small-scale fisheries (Too Big To Ignore), Lasse Lindström and co-workers from Stockholm University presented new studies in East Africa focusing on adaptation and climate change research relevant for helping coastal communities achieve social justice. He echoed the observation by Archbishop Desmond Tutu in the Human Development Report 2008 that “adaptation” is a euphemism for “social injustice”. The poor are exposed to the harsh realities of climate change in their everyday lives. Gender issues are usually ignored in both coastal fisheries and climate change. The research presented stressed the need for empirical analyses that are well anchored in the situation on the ground and that consider social and ecological aspects; and address gender issues at the individual level. Additionally, different strategies such as resilience, reworking, and resistance were highlighted as important to analyse and to link to transformative agency or agency requiring collective responsibility for change. The research is taking place in Zanzibar, Tanzania and in Inhaca Island in Mozambique to allow for comparison.

Paul Onyango turned the IIFET 2012 conference theme (Visible Possibilities) on its head and examined poverty in Lake Victoria fishing communities through the lens of “invisible possibilities”, which he decomposed into visible absences and invisible presences. Visible absences — what we perceive is missing in peoples’ lives that may make them seem poor — often overshadow the view of invisible presences — the characteristics of people that are their values and strengths. Forms of self-respect such as the way women fish traders dress proudly when conducting their businesses, voluntary pooling of assets such as fishing boats by fishermen, sorting out conflicts at the beach level, and many other negotiations are the base of social capital that is never noticed. The challenge for the fishing communities is how to combine and use the invisible assets to create wealth in the community.

### Reflections on the gender and value chain presentations

In the IIFET 2012 panel discussion on “Overcoming Inequalities in Fish Supply Chains to Inform Policy and Action”, panelist Theodora Hyuha of Uganda highlighted four points. In the first, new technologies, she stressed that “women fish farmers have to learn the new technologies. Yet, when extensionists approach farmers, they usually go to men first and so women are left to learn from second hand information”. The second point that emerged from several presentations was that the aquaculture sector in Africa is still often just for subsistence. To develop, finance is needed, but women are often restricted to micro-finance options as they have limited collateral, although they are good creditors.

In Uganda, over 90% of women honour their obligation to pay back the loans, as opposed to men who often evade paying back the big loans they secure. Third, we have tended to treat women as a homogeneous group whereas we need to distinguish those doing well and those needing a hand. Finally, the education system in most countries is gender neutral, implying that both boys and girls will have equal access. However, the reality is different. Girls face more constraints than boys, such as a family preference to pay school fees for a boy in the family whenever the financial resources are scarce. Further, girls are brought up to believe that science subjects are hard and meant for boys.

Sara Frocklin also pointed out that a strong theme coming out of the sessions was that organisations for women in the fish value chain were often weak or lacking. To help strengthen their positions and capacity, women fish traders need formal places to meet, and opportunities for training and getting to know each other and their collective needs.

Sebastian Mathew of the International Collective in Support of Fishworkers recommended that we consider a human rights based approach to unleash the power of women to fulfill the multiple social, health, reproductive and business roles expected of them in today’s coastal communities. Stella Williams pointed out that in Africa, women are being used more and more in peace-making efforts. In India, Shaym Salim highlighted the superior performance of women in funds management and in delivery of outcomes in Self Help Groups. Lasse Linstrom pointed out that we had talked quite a lot about women and men but children and youth in fisheries should also be recognised as they play large roles in many households. Mundis Maris, who Stella Williams was representing, does target the youth in its work, and it is finding that parents do not want their children to go into fisheries, but to become professionals if possible. Mundis Maris also reaches people through art and creativity.

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The International Institute for Fisheries Economics and Trade (IIFET, <http://oregonstate.edu/dept/iifet/>) is an international group of economists, government managers, private industry members, and others interested in the exchange of research and information on marine resource issues. IIFET organises biennial conferences; IIFET 2012 was held in Dar es Salaam, Tanzania, with the theme Visible Possibilities: The Economics of Sustainable Fisheries, Aquaculture and Seafood Trade. IIFET 2012 was co-organised by the University of Dar es Salaam ([www.udsm.ac.tz](http://www.udsm.ac.tz)) and IIFET.

The mission of the Aquafish Collaborative Research Support Program (CRSP, <http://aquafishcrsp.oregonstate.edu/>) is to enrich livelihoods and promote health by cultivating international multidisciplinary partnerships that advance science, research, education, and outreach in aquatic resources. Bringing together resources from United States of America and host country institutions, the AquaFish CRSP strives to strengthen the capacities of its participating institutions, to increase the efficiency of aquaculture and improve fisheries management in environmentally and socially acceptable ways, and to disseminate research results to a broad audience.

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