

Youth in small-scale fisheries and aquaculture

There is unrealized potential for decent and meaningful livelihoods for youth in small-scale fisheries and aquaculture. This finding is especially important as youth are increasingly engaged in non-standard, informal and less secure opportunities, and as youth unemployment rises.¹ However, successful engagement of youth in small-scale fisheries and aquaculture requires that policies, investments and other interventions be informed by an understanding of the livelihood opportunities and challenges faced by youth.

The International Water Management Institute (IWMI) and WorldFish assessed youth participation in small-scale fisheries, aquaculture and associated value chains in Africa, Asia and the Pacific, drawing on the voices of youth in Bangladesh, Cambodia, Egypt, Myanmar, Nigeria, the Solomon Islands, Tanzania and Zambia. A critical review of literature, supplemented by interviews, was complemented by two empirical studies of the opportunities and challenges for youth participation in aquaculture in Nigeria and the livelihood aspirations and realities of youth in small-scale fisheries in Myanmar.

Three main objectives guided the research:

1. To assess the participation of youth in fisheries and aquaculture, and the associated opportunities and challenges.
2. To analyze how we engage with youth in selected countries, and associated learnings.
3. To identify (i) policy and investment recommendations and (ii) future research priorities, with an overall purpose of improving benefits to youth from small-scale fisheries, aquaculture and associated value chains.

Key messages

- Youth is considered to be the transition period between childhood and adulthood, and as such encompasses a diverse group of individuals. Differences in gender, caste, class, sexuality and ability influence livelihood aspirations, opportunities and challenges.
- Empowered and innovative youth are essential to the future of small-scale fisheries and aquaculture. Thus, it is crucial to understand how youth can engage with the sector to access decent and meaningful livelihood opportunities.
- Issues of intersectional and intergenerational equity must be addressed to improve youth access to assets, finance, knowledge and decision-making power. Young women and youth from poor or landless households often face additional burdens or are more acutely affected, but differences due to other intersectional identities have yet to be fully understood.
- Efforts to improve youth engagement requires a coherent and integrated response from governments, private companies, development partners, research institutes and youth organizations.

Understanding youth participation in fisheries and aquaculture

The “diversity of youth”

Youth is widely considered to be the period between childhood and adulthood, but the defining age cohorts adopted by countries and organizations differ widely, generally falling between the ages of 15 to 35. However, defining youth by age

¹ “Youth” in this statistic refers to the age cohort between 15 and 24 years. ILO. 2020. Global Employment Trends for Youth 2020: Technology and the Future of Jobs. Geneva, International Labour Office. http://www.ilo.org/global/publications/books/WCMS_737648/lang--en/index.htm

alone can be misleading as it is influenced by many factors including age, education, employment, legal and marital status, and other intersectional identities including gender, sexuality, caste, class and ability. For instance, young people from poorer households often begin working earlier, and may even be the primary income earners in a household, convoluting the perception of youth.² In other contexts where men typically get married at an older age than women, young men may be considered as youth longer than young women. Thus, youth is better understood as a stage of life that differs with context.

These different identities shape livelihood aspirations, including perceptions of what is possible, opportunities and challenges for youth. Our findings show that in Africa, Asia and the Pacific there is a significant disparity between youth livelihood aspirations and realities. As such, youth unemployment levels remain stubbornly high—30 percent in North Africa, 19 percent in South Asia, 11 percent in Southeast Asia and the Pacific, 10 percent in East Asia and 9 percent in sub-Saharan Africa.¹ This makes it especially important to understand how youth can engage with small-scale fisheries and aquaculture to access decent and meaningful livelihood opportunities.

Barriers to youth engagement

Youth face unique challenges in agri-food system livelihoods, which are often amplified by other intersectional identities. Their opportunities are often concentrated in segments of small-scale fisheries and aquaculture value chains that are informal and poorly paid and, as such, stigmatized, or they assume supportive roles within household production. In addition, social divisions of labor can be strongly gendered—young men tend to produce fish, where they may assume some power but also high physical or financial risk, while young women tend to process and trade fish, where, despite their strong involvement, they often lack influence and are exposed to other exploitative conditions.

Youth typically do not own the assets required for production, including boats and nets for fisheries or land for aquaculture, that are often transferred intergenerationally. These constraints restrict the access of youth to financial services and technical advice. Additionally, increasing youth enrollment in formal education, though beneficial in many ways, can reduce exposure to ecological and traditional forms of knowledge related to livelihoods in small-scale fisheries or aquaculture.

In situations where youth do have rights to appropriate resources, they may have to negotiate power structures to gain access. This can be especially difficult in societies where decision-making is dominated by the affluent or most experienced, as youth participation and leadership are often obstructed. This challenge is intensified for young women, who are often restricted further by cultural and social norms.

These challenges likely contribute to declining interest among youth in agri-food system livelihoods,³ though the dynamics are poorly understood.

Better knowledge must underpin intervention

Youth livelihoods in small-scale fisheries and aquaculture remain a heavily understudied area. This often leads to simplistic narratives about how young men and women engage with these sectors that do not accurately capture youth livelihood realities, a disconnect

compounded by the lack of youth participation in most decision-making processes. These depictions are then used to inform policies, which often fail to recognize young people as agents in their own right and impose an external vision of how their needs are to be met.

Policies aimed at increasing youth employment in fisheries and aquaculture tend to focus on: (i) capacity development interventions or (ii) supporting youth entrepreneurship. While the former approach can help bring youth into the labor market, it is criticized for focusing on individual shortcomings instead of underlying mechanisms that exclude youth, including structural barriers and discrimination. Regarding the latter approach, the mechanisms by which support for youth entrepreneurship increases youth employment in fisheries and aquaculture remain poorly understood.

The inherent diversity of youth influences how they engage with small-scale fisheries and aquaculture, and agri-food systems in general. However, many livelihood challenges experienced by youth are also shared with other social groups, including women and others termed “vulnerable.” More understanding is needed on how, where and why these challenges impact youth differently from other social groups to develop better targeted responses.

Data is sparse concerning youth livelihood opportunities and challenges in small-scale fisheries and aquaculture and the benefits derived from participation, especially for young women. Collection of this data is essential to provide a basis for improving youth engagement and can help better align interventions with pro-youth outcomes.



Regional context provides key insights

Nigeria's experience with youth in aquaculture

The Nigerian government has [invested in developing aquaculture](#) value chains to increase equitable employment opportunities for youth and enhance the competitiveness of the sector. However, less than 2 percent of youth engaged in agri-food systems are employed in aquaculture.

The IWMI's recent study focused on the states of Oyo, Ogun, Lagos and Anambra, where aquaculture is dominated by small-scale producers and further development can improve livelihoods and food and nutrition security. Higher youth participation in aquaculture was seen where fish demand was high, favorable policies and appropriate infrastructure were in place, and support from social networks and opportunities to develop skills existed.

² Blum R and Boyden J. 2018. Understand the lives of youth in low-income countries. *Nature* 554:435–37. <https://doi.org/10.1038/d41586-018-02107-w>

³ Leavy J and Hossain N. 2014. Who wants to farm? Youth aspirations, opportunities and rising food prices. *IDS Working Papers* (Vol. 2014). <https://doi.org/10.1111/j.2040-0209.2014.00439.x>

The nature of youth participation depended heavily on their access to resources, resulting in two main participation strategies. Youth who pursued an “investment-based” strategy engaged in capital-intensive segments of the value chain, like production and processing, and could leverage strong social networks to access land and cover initial costs. Youth taking a “risk-management-based” strategy sought opportunities in pre-production, traditional processing and marketing, where they often used information and communications technologies to reduce post-harvest losses.

These participation strategies help identify the role of assets and networks in youth participation in aquaculture. Improving youth access to assets and finance, updates to transportation and power supply infrastructure, and capacity development around digital marketing are expected to facilitate better youth inclusion in the Nigerian aquaculture value chain.

Lessons from Myanmar’s small-scale fisheries

In Myanmar’s Ayeyarwady Delta, poor or landless households historically participated in small-scale fisheries and agricultural wage labor. However, inland fisheries remain largely marginalized by national-level development efforts that prioritize rice production in the delta, which severely impacts fisheries productivity and intensifies local economic and social disparities.

The IWMI’s study of one fishing community in the delta found that the livelihood aspirations, opportunities and challenges of youth are strongly influenced by these historical and structural inequalities. Despite the recent collective organization of fishers, small-scale fisher households are still marginalized, as decision-making and financial gains are dominated by a few large-scale fishers. Although youth aspire to alternative and more profitable livelihoods, especially as connectivity to urban areas increases, issues of intergenerational poverty and marginalization⁴ continue to shape access to education and other employment opportunities.

Traditional gendered norms and identities are another important determinant of livelihood aspirations and realities in the delta. For many young women, livelihood opportunities have transitioned from rural wage labor to urban garment factories. Though urban employment has its own risks and challenges, livelihood opportunities for many young men remain rural, often in opposition to their aspirations, and increasingly precarious in neighboring fisheries.



While fisheries do feature in the livelihood realities of many youth in the delta, it remains a livelihood associated with poverty and low social status. Meaningful attempts to improve youth livelihoods in fisheries must recognize the importance of small-scale fisheries to the poor or landless and the scope of agri-food systems beyond rice. Knowledge about intergenerational inequality and structural constraints to decent and meaningful livelihoods should also inform [integrated planning](#) of rural development and natural resource management for equitable and sustainable agri-food systems.

Creating space for youth in small-scale fisheries and aquaculture

Governments, private companies, development partners and research institutes all play key roles in enhancing youth participation in small-scale fisheries and aquaculture. Findings from the review and empirical studies indicate that to develop appropriate policies and investments (i) youth must be recognized as a diverse group with differing livelihood aspirations, opportunities and challenges, (ii) issues of intersectional and intergenerational equity, especially regarding access to assets and resources, must be addressed and (iii) the meaningful participation of youth in decision-making processes must be facilitated and legitimized.

Addressing current challenges faced by youth

Addressing the current challenges faced by young men and women in small-scale fisheries and aquaculture is crucial to inclusive development of the sector. Governments and development partners can [help reduce challenges](#) by facilitating evidence-based

- land distribution or tenure arrangements that allow youth to access productive natural resources;
- establishment of cooperatives that improve youth access to land and water rights, inputs, markets and financial services;
- [updates to curricula and training tools](#) and the creation of relevant positions in higher education;
- development and enforcement of protections from exploitative employment conditions;
- formation of organisations that create a formal pathway for youth to engage in decision-making processes.

Moving forward, it is important to understand how increasingly liberalized and globalized economies may pose new and evolving challenges for youth participation.

Developing opportunities for youth

Creating decent and meaningful opportunities for youth will require collective action by governments and private companies. We find particular potential in

- [downstream segments of the value chain](#), including processing, value addition and trading, that do not require assets needed for production. In some cases, processing and value addition can be done from home, which may facilitate greater inclusion of young women or more stability in times of crisis (e.g. COVID-19);
- a thriving aquaculture sector, as it generally contributes to non-seasonal [employment generation for youth](#).⁵ However, support for the sector, government and otherwise, must be inclusive of small-scale farms and farms that largely employ young women and men.

⁴ Kolding J, Bavinck M and Bene C. 2014. Small-scale fisheries: Importance, vulnerability and deficient knowledge. In Garcia S, Rice J and Charles A, eds. *Governance for Marine Fisheries and Biodiversity Conservation*. Blackwell-Wiley. <https://doi.org/10.1002/9781118392607.ch22>

⁵ Hishamunda N, Bueno P, Menezes AM, Ridler N, Wattage P and Martone E. 2014. Improving governance in aquaculture employment: A global assessment. FAO Fisheries and Aquaculture Technical Paper No. 575. Rome: FAO.

Any action taken to create new opportunities in small-scale fisheries and aquaculture must be assessed through an intersectional lens so that youth and their other social identities, including gender, are not inadvertently marginalized.^{6,7}

Alignment with youth aspirations

Inclusive, equitable and sustainable development of small-scale fisheries and aquaculture may better satisfy youth livelihood aspirations. Governments, private companies and research institutes can contribute to changing youth perceptions of the sector through

- increased integration of information and communication technologies, perhaps through more sophisticated record keeping, the creation of virtual markets, and wider access to technical advice and training opportunities.⁸ However, not all youth have equal access to these technologies because of high costs, unreliable connectivity and limited literacy, issues that often place young women at a greater disadvantage than young men;
- the development of an enabling environment for youth entrepreneurship, including supportive policies and opportunities for knowledge and skill development.

While examples of technology- or entrepreneurship-driven improvements in youth engagement exist, further work is required for validation of these linkages.

⁶ Gray L and Kevane M. 1999. Diminished access diverted exclusion: Women and land tenure in sub-Saharan Africa. *African Studies Review* 42(2):15–39. <https://doi.org/10.2307/525363>

⁷ Al Rashdi KM and Mclean E. 2014. Contribution of small-scale fisheries to the livelihoods of Omani women: A case study of the Al Wusta Governorate. *Asian Fisheries Science* 27S:135–49.

⁸ United Nations Department of Economic and Social Affairs. 2013. Youth and ICT. Fact Sheet. ITU and UN-Habitat under UNDESA. www.un.org/esa/socdev/documents/youth/fact-sheets/youth-icts.pdf

⁹ Indika Arulingam, a research officer at IWMI, is helping draft the 16th High Level Panel of Experts report titled, "Promoting youth engagement and employment in agriculture and food systems." The final report is expected to be released in June 2021.

Closing research gaps

Further research in the following areas is expected to help inform efforts to empower and retain youth in meaningful small-scale fisheries and aquaculture livelihoods:

- Improve understanding of **the diversity of youth as it affects how, where and why youth engage**.
- Investigate **how economic, political and social shifts** at local to global scales, including in the post-COVID-19 context, **change how youth participate and benefit** from these sectors.
- Analyze how governance and policies impact youth involvement to **improve alignment with pro-youth outcomes**.
- Develop **targeted, evidence-based interventions to address challenges and create opportunities** for decent and meaningful employment for youth.

To strengthen national and international discourses, the IWMI, WorldFish and partners will continue to engage with and provide evidence to (i) the Committee on World Food Security's High Level Panel of Experts on Food Security and Nutrition to [promote youth engagement and employment in agriculture and food systems](#)⁹ and (ii) [One CGIAR](#) to develop meaningful livelihood opportunities for youth in the labor force.

Authors

Carolyn Fry,¹ Indika Arulingam,¹ Likimyelesh Nigussie,¹ Sonali Senaratna Sellamuttu,¹ Malcolm C. M. Beveridge² and Nisha Marwaha²

Affiliations

¹ IWMI

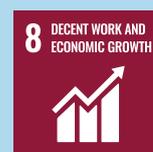
² WorldFish

Acknowledgments

The strategic brief is published by the CGIAR Research Program on Fish Agri-Food Systems (FISH), led by WorldFish in partnership with the International Water Management Institute, Wageningen University & Research, James Cook University and the University of Greenwich. FISH is a multidisciplinary research for development program, designed in collaboration with partners and stakeholders, to develop and implement research innovations that enhance the contribution of small-scale fisheries and aquaculture to reducing poverty, increasing food and nutrition security, and improving natural resource systems. Please visit fish.cgiar.org for more information.

This brief is one in a series of synthesis products published in 2021 to share key learning, outcomes and impacts from the FISH program. It is intended to stimulate actions and investments into fish and aquatic foods to realize their role in the transformation of food, land and water systems in a climate crisis. We extend thanks to all the contributors of this research and the reviewers of this brief.

This is a contribution to the following:



Citation

This publication should be cited as: Fry C, Arulingam I, Nigussie L, Senaratna Sellamuttu S, Beveridge MCM and Marwaha N. 2021. Youth in small-scale fisheries and aquaculture. Penang, Malaysia: CGIAR Research Program on Fish Agri-Food Systems. Program Brief: FISH-2021-05.

Creative Commons License



Content in this publication is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0), which permits non-commercial use, including reproduction, adaptation and distribution of the publication provided the original work is properly cited.

© 2021 CGIAR Research Program on Fish Agri-Food Systems.