

Youth Livelihoods in Aquaculture in Ghana

Why context, aspirations and mobility matter for designing effective aquaculture interventions

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October 2026



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Acknowledgments

This work was conducted as part of the CGIAR Sustainable Animal and Aquatic Foods Program. We would like to thank all funders who supported this research through their contributions to the CGIAR Trust Fund (www.cgiar.org/funders/).

Suggested citation

Appiah, Sarah; Arulingam, Indika; Everisto Mapedza; Marie-Charlotte Buisson; and Giulia Zane. 2026. Youth Livelihoods in Aquaculture in Ghana: Why context, aspirations and mobility matter for designing effective aquaculture interventions. International Water Management Institute.

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Front cover photo: Langbinsi Aquaculture Group member degutting fish during a training exercise (photo by Sarah Appiah/IWMI).

Back cover photo: Female members of the Nansoni Group sorting fish (photo by BigPoint GH).

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This publication has been prepared as an output of the CGIAR Sustainable Animal and Aquatic Foods Program and has not been independently peer reviewed. Responsibility for editing, proofreading, and layout, opinions expressed, and any possible errors lies with the authors and not the institutions involved.

Contents

Summary	3
Why this matter	3
Study Approach and Context:	3
Key Findings	4
Policy Recommendations	5
References	6

Summary

Ghana is promoting aquaculture as a livelihood for young people, yet programs often treat youth as a single group. This brief draws on a qualitative study with young women and men in five communities in Ghana's Western and North-East Regions. It discusses how the complex intersections in socioeconomic and ecological contexts, the other livelihood options available to young women and men, and their education and employment aspirations shape the different ways in which they pursue income-generating opportunities in aquaculture. In the Western Region, young people viewed aquaculture as a short-term income opportunity and a stepping-stone towards other non-farm livelihood and education opportunities within the village and beyond. In the North-East Region, they saw it as a longer-term complement to farming that could ease dry-season income gaps. The brief highlights that youth aquaculture programs will work better when they are designed around these local realities.

Key messages

- Young people engage with aquaculture in different ways: in one region it is a stepping stone, in the other a lasting complementary livelihood.
- Local non-farm options, education plans, land access and gender roles explain these differences.
- Gender roles persist: men dominate production while women dominate processing and trading, even where programs target both.
- One-size-fits-all youth programs risk poor uptake. Support should be tailored to each region and to different groups of young people.

Why these matters

Governments and development agencies increasingly seek to engage young people in agrifood systems (Engström et al. 2025; Glover and Sumberg 2020). This responds to a perceived lack of interest in farming among rural youth, linked to wider access to education, stronger rural–urban connections and declining farm profitability (Elias et al., 2018; White, 2012). In Ghana, these efforts include the Ministry of Food and Agriculture's Youth in Agriculture Program (Avura and Ulzen-Appiah 2016) and the Ministry of Fisheries and Aquaculture Development's Aquaculture for Food and Jobs (AFJ) program, launched in 2018 to train 10,000 young people in small-scale fish farming¹.

Policy debates often ask whether young people will stay in agriculture. Yet rural youth livelihoods are fluid: young people combine activities and move between sectors and between rural and urban areas (HLPE 2021). How they engage with aquaculture depends on the full range of opportunities they see within and beyond agrifood systems (Sumberg et al. 2020). Programs that overlook these realities risk offering support that young people do not want or cannot use.

Study Approach and Context

The study, conducted under the CGIAR Sustainable Animal and Aquatic Foods (SAAF) Science Program, examined young people involved in two aquaculture initiatives:

- **North-East Region:** an [aquaculture pilot](#) led by IWMI with the Fisheries Commission of Ghana and the CSIR-Water Research Institute, started in 2023.
- **Western Region:** an intervention funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and implemented by the Fisheries Commission of Ghana.

¹ <https://www.myjoyonline.com/akufo-addo-launches-aquaculture-for-food-and-jobs-programme-2/>

Using an aspirations lens, the team held interviews and focus group discussions in five communities: three in the Western Region and two in the North-East Region. Participants were largely young men and women aged 18-35 years who were either members of the aquaculture farmer groups or had expressed interest. In total, 143 participants were engaged through FGDs and in-depth interviews, comprising 87 males and 56 females. The aspirations perspective was used to examine how socioeconomic and ecological conditions, livelihood alternatives, education, employment and mobility shaped young people's views of aquaculture. At the time of the study, Western Region groups completed at least three production cycles, while the North-East pilot was in its first; this difference in experience may also have shaped perceptions.

Two contrasting contexts

Ghana has a marked north-south divide. The North-East Region has an agrarian economy that depends on a single rainy season, with few non-farm alternatives and higher poverty rates relative to other regions of Ghana (Bawa, 2019; Abdul-Razak and Kruse, 2017; Ghana Statistical Service, 2025). The Western Region supports year-round cultivation of several cash crops (Ministry of Food and Agriculture (MoFA), 2011), is more urbanized and has a more developed rural non-farm economy (Diao et al. 2019). Men from the north have long migrated south during the dry season (Rademacher-Schulz et al. 2014), and young women also migrate to southern cities to work as market porters, known as *kayayei*. The Ghana Statistical Service reported approximately 421,000 young people in the Western Region and 138,000 in the North-East Region in 2021, based on its population projections (Ghana Statistical Service, 2024).

Table 1. How the two study contexts compare

	North-East Region	Western Region
Main livelihoods	Rain-fed farming: soybean, rice and groundnut for sale; maize and yam for home use	Cocoa, rubber, coconut, cassava and food crops farming and fishing in coastal areas; plantation wage labour, trading and <i>okada</i> (motorbike taxi) driving (among young people)
Non-farm options	Few, especially in the dry season; nearest market is 30-40 minutes away by motorbike	Many short-term options in and near the villages
Mobility	Seasonal dry-season migration, mostly by men and some young women	Migration to towns to save for education or a business
Education plans	Tertiary education seen as a distant hope	Tertiary education central to near-term plans
Land access	Young men farm their own plots from an early age	Youth are 'helpers' on parents' farms; land often only through sharecropping or rental
How youth see aquaculture	A long-term complement to farming that smooths seasonal income	A short-term way to build capital for other goals

Key findings

Western Region: aquaculture as a stepping stone

Young people in the three Western Region communities came from farming households but saw themselves as helpers on their parents' farms rather than as farmers. Most viewed farming negatively and took part for lack of alternatives. Young men drove *okada* and young women traded, and many hoped to migrate to urban areas to save for further education or a business. Participants were positive about aquaculture's income potential but saw it as a means to an end: a quick way to build capital before moving on, consistent with Anyidoho et al. (2012)'s finding in farming areas in Ghana where young people perceived farming as a means of capital accumulation towards non-farm primary occupation

North-East Region: aquaculture as a complement to farming

In the two North-East communities, young men began farming their own plots early and identified as farmers. Few local income options existed, particularly in the dry season, and many young men migrated south; married women who stayed grew vegetables irrigated from the dam. Young people who had completed senior high school hoped for tertiary education but placed it in a distant future. Most expected to remain tied to farming in the village and valued aquaculture as one of the few viable options offering steadier, less seasonal income alongside it.

What explains the difference

- **Livelihood alternatives.** Where short-term non-farm work is available, aquaculture competes with other options and is treated as temporary. Where options are scarce, it is valued as a lasting addition to farming.
- **Education.** Tertiary education shapes near-term plans in the Western Region. In the North-East, even young people pursuing it expected to stay connected to farming.
- **Land access.** Early access to land in the North-East strengthens farming identities and rural futures. In the Western Region, land is harder for young people to obtain.
- **Gender.** Agricultural production in Ghana follows gendered divisions of labour (Yeo et al. 2024). Although both interventions aimed to involve young women and men across the value chain, men dominated production while women dominated processing and trading in both regions consistent with the fisheries literature (Appiah et al. 2021).

Despite the diverse pathways through which young people engage in aquaculture, several common constraints were highlighted as a limitation to entry, growth and long-term participation in the sector

Key Constraints to Youth Participation in Aquaculture.

- Limited access to start-up capital and affordable credit.
- Difficulty obtaining quality fingerlings and other production inputs.
- High feed costs, which reduce profitability.
- Inadequate technical support and extension services, particularly in the North-East Region where aquaculture remains relatively underdeveloped

Policy Recommendations

1. **Avoid one-size-fits-all youth aquaculture programs** — interventions must be context-specific, aspiration-sensitive, and gender-responsive. Tailor support to regional realities: retention strategies may be needed in urban-oriented regions, while agrarian regions require stronger long-term business capacity. For instance, in the North-East Region, link aquaculture with crop farming and help young people reach distant markets
2. **Ensure Continuous training and Extension support:** Provide training that continues beyond the first production cycle. Build skills over time, from managing water quality and fish health to designing, installing and maintaining pond- and cage-based systems.
3. **Tailor access to finance.** Develop innovative youth and gender-responsive financing mechanisms that reduce barriers to entry and support investments in aquaculture equipment, pond installation, fish processing, and transport across different segments of the value chain
4. **Promote gender-responsive youth engagement.** Design aquaculture interventions that recognize the different roles, opportunities, and constraints faced by young women and men across the value chain, ensuring equitable access to training, finance, inputs, technologies, and market opportunities.

5. **Strengthen value chain integration** (production, processing, and marketing) to expand entry points for youth in aquaculture and the wider agrifood system. Interventions should be gender responsive

A practical pathway for context-responsive youth aquaculture

1. Understand	2. Segment	3. Tailor	4. Learn and adapt
Map aspirations, opportunities, mobility, land access and gendered responsibilities.	Identify distinct groups and the role aquaculture could play in each group's livelihood strategy.	Align production models, skills, finance, assets and market support with those pathways.	Track diverse outcomes and adjust support as aspirations and enterprises change.

Suggested next steps for project design and scaling

- Use these findings to review the design assumptions of youth aquaculture programs across Ghana's regions.
- Co-design support packages with young women and men, producer groups, extension services, market actors and local authorities.
- Pilot and compare differentiated models, tracking how young people's expectations and roles change over successive production cycles.

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