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Determinants of the intention to practise aquaculture after graduation among university students of aquaculture and fisheries in Ogun State, Nigeria

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Abstract

This study examined the factors influencing the intention to practise aquaculture (ITPA) among university fisheries students in Ogun State, Nigeria, after graduation. A multistage procedure was employed to select 198 fisheries students from two universities offering aquaculture and fisheries-related courses within the study area. Data were obtained via a questionnaire administered via the Kobo Collect application. The data were analysed using frequency, percentage, mean, standard deviation, and binary logistic regression. The results revealed that the students' mean age was 24.3 years, and that 60 % of them were females. The majority (97.0 %) were single, and 21.8 % indicated that their parents were involved in aquaculture enterprises. The results also showed that 91.4 % intended to practise aquaculture after graduation, with 60.8 % preferring to start a feed milling enterprise. The motivations for ITPA after graduation included the desire to create jobs (93.6 %), and persuasion by parents and relatives (94.1 %). Those who did not intend to practise aquaculture reported lack of access to loan facilities (94.1 %), and a lack of professionalism (88.2 %) as demotivating factors. Additionally, 94.9 % had a positive perception of youth involvement in aquaculture, but required further training in pond construction ($\bar{x} = 1.57 \pm 0.64$), and fingerling production/breeding ($\bar{x} = 1.58 \pm 0.65$). The perception of youth involvement in aquaculture was found to be a significant predictor of students' ITPA ($\beta = 0.116$, $p < 0.05$) with an odds ratio of 1.123. It was concluded that the intention of fisheries students' intention to practise aquaculture after graduation was significantly influenced by their perception of youth involvement in aquaculture rather than by personal characteristics. It is recommended that stakeholders should provide fisheries graduates with access to land and financial support.

Keywords: Aquaculture enterprises, de-motivators, fisheries education, intention to practise, motivators, personal characteristics

1 Introduction

In the 1960s and 1970s, Nigeria's economy relied heavily on agriculture (Omorogiuwa *et al.*, 2014), which was a major source of national revenue. The country was recognised internationally for exporting cotton, cocoa, shelled groundnuts, and palm oil (Ojebiyi *et al.*, 2015). Agriculture held strong potential to provide employment for the nation's rapidly growing youth population (Glover and Sumberg, 2020). In recent years, concerns have intensified over the need to diversify Nigeria's economy away from dependence on oil (Nigerian Bureau of Statistics [NBS], 2021; Anyanwu, 2025).

Aquaculture has emerged as one of the fastest-growing segments of the agricultural sector, driven by the decline in natural fish stocks (Olaoye & Ojebiyi, 2018). Overfishing

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in the artisanal fisheries subsector has made aquaculture a key strategy for combating protein malnutrition (Ogunji & Wuertz, 2023). In 2015, total fisheries production was estimated at 1,027,000 tonnes, while fish imports were valued at approximately USD 1.2 billion (Subasinghe *et al*., 2021). With abundant land suitable for fish production, the sector holds considerable potential to meet the growing population's fish demand (Ogunji & Wuertz, 2023; Saba *et al*., 2024). However, maximising this potential requires increased participation across all areas of the industry (Adelodun, 2015).

Aquaculture remains a viable and profitable business in Nigeria, as shown by growth in domestic fish production, the number of fish farmers, and production rates (Subasinghe *et al*., 2021). Beyond its economic benefits, aquaculture offers attractive features for youth, such as mechanised technologies, organised farmer associations, and professional bodies. Nonetheless, youth represent only a small fraction of active aquaculture producers (Nigussie *et al*., 2024), and high inter-regional fish transport persists to meet demand.

The sector offers young people opportunities to earn livelihoods, build wealth, and contribute to food and nutrition security (Ifejika, 2015). With job prospects spanning production, marketing, processing, feed manufacturing, value-added products, equipment fabrication, software development, extension, and advisory services, aquaculture should be regarded as a professional career path rather than solely a rural poverty alleviation measure. Nigerian higher education institutions—universities, polytechnics, and colleges of agriculture - offer courses in aquaculture and fisheries management (Federal University of Agriculture [FUNAAB], 2025), enabling youth to acquire professional training. Yet, fish production has never met national demand (Chinonyerem *et al*., 2020), and many fisheries graduates do not engage in the sector despite the available opportunities.

Information on youth involvement in aquaculture, particularly among Aquaculture and Fisheries Management students, remains limited. This gap persists despite government investment in training them for the fisheries workforce and prior studies on youth willingness to participate in agriculture (Inegbedion & Islam, 2021; Ojebiyi *et al*., 2015; Omotosho *et al*., 2020). Addressing this gap, the present study examines factors influencing university fisheries students' intention to work in aquaculture after graduation. Specifically, it investigates their intended aquaculture branches, motivating and discouraging factors, perceptions of youth involvement, training needs, and anticipated challenges.

2 Materials and methods

This study was conducted in Ogun State, one of Nigeria's rapidly developing states located in the southwestern part of the country. The participants in the study were aquaculture and fisheries undergraduate students in Ogun State. A multi-phase process was used in this study. Two universities – Olabisi Onabanjo University (OOU) and Federal University of Agriculture, Abeokuta (FUNAAB) – were purposively sampled in Stage 1 since they both provide programmes pertaining to aquaculture and fisheries. Students from the chosen universities who studied aquaculture and fisheries management were specifically chosen for this study in stage two because of its applicability. Since they are nearing the end of their academic programme and are in the process of deciding what career path to take after graduation, final year and SIWES(1 – insert ref. The Students Industrial Work Experience Scheme (SIWES) is a Skills Training Programme designed to prepare and expose Students of Universities, Polytechnics, Colleges of Technology, Colleges of Agriculture and Colleges of Education for the Industrial Work situation they are likely to meet after graduation - https://www.siwes.itf.gov.ng/Identity/LandingPage/siwes) students were selected for this study in stage 3. A complete census of all SIWES and final-year university students was conducted in the last phase. For this study, interviews were conducted with 198 students in total (132 from FUNAAB and 66 from OOU).

Data were collected from students via a questionnaire administered through the Kobo Collect application. The responses submitted were then downloaded, cleaned and coded before undergoing further analysis using the Statistical Package for the Social Sciences (SPSS) version 23.0. Descriptive and inferential statistics were applied to the data, and the results were presented in the form of frequency tables and charts.

3 Results

3.1 Personal characteristics of students

The results regarding the personal characteristics of FUNAAB and OOU students are presented in Table 1. In terms of age, it was revealed that the majority of students at both universities were in the ≤24 age bracket. Regarding sex distribution, the results indicated that aquaculture and fisheries courses are predominantly chosen by female students, with a higher proportion of female students at OOU than at FUNAAB. Furthermore, the findings revealed that most students at both institutions were single and received an estimated monthly allowance of between N10,001 and N50,000. The

majority of students at both institutions reported that their parents were not involved in the aquaculture business. While just 54.5 % of FUNAAB students chose aquaculture as their course of study, almost all of their OOU counterparts indicated otherwise. The distribution of students by current academic grade reveals that most of those sampled were in the second class categories (upper and lower divisions).

Table 1: *Percentage distribution of students by personal characteristics at Federal University of Agriculture, Abeokuta (FUNAAB) and Olabisi Onabanjo University (OOU).*

Personal characteristics	*FUNAAB (n = 132)*	*OOU (n = 66)*	*ALL (n = 198)*
Age (years)			
≤24	69.0	87.9	75.3
25–30	29.5	12.1	23.7
>30	1.5	0.0	1.0
Sex			
Male	43.2	33.3	39.9
Female	56.8	66.7	60.1
Marital status			
Single	96.2	98.5	97.0
Married	3.8	1.5	3.0
Estimated monthly allowance (Naira)			
≤10,000	12.2	11.9	11.1
10,001–50,000	72.9	79.7	68.6
>50,000	14.9	8.4	20.2
Parental involvement in aquaculture			
Yes	22.9	19.7	21.8
No	77.7	80.3	78.2
Aquaculture as choice course of study			
Yes	54.5	7.6	38.9
No	45.5	92.4	61.1
Current grade			
First class	4.5	4.5	4.5
Second class upper	43.9	43.9	43.9
Second class lower	37.9	43.9	39.9
Third class	6.8	3.0	5.6
Pass	6.8	4.5	6.1

*10,000 Naira = 15.77 USD at the time of the study.

3.2 Intention and motivation to practise aquaculture

Almost all students (94.9 %) had a positive perception of youth involvement in aquaculture, with similar proportions at both institutions. Binary logistic regression analysis revealed that this perception was the sole significant positive predictor of students' intention to practise aquaculture after graduation ($p < 0.05$), whereas socio-demographic characteristics were not significant ($p > 0.05$) (data not shown). The odds ratio revealed that a one-unit increase in favourable perception of youth involvement in aquaculture increased the likelihood of pursuing the enterprise by 12.3 %, emphasising the pivotal role of positive perceptions in shaping career intentions.

Table 2: *Percentage distribution of students by intention to practise branches of aquaculture at FUNAAB and OOU University.*

Branches of aquaculture	*FUNAAB (n = 121)*	*OOU (n = 60)*	*ALL (n = 181)*
Fingerlings/fry production	51.2	60.0	54.1
Grow out/ broodstock production	61.2	46.7	56.4
Fish processing	42.1	58.3	47.5
Feed milling	62.8	53.3	59.7
Consultancy	29.8	45.0	34.8
Fishery extension	66.9	48.3	60.8
Marketing	26.4	33.3	28.7

Most students (91.4 %) expressed the intention to practise aquaculture after graduation, with 91.7 % of FUNAAB students and 90.1 % of OOU students indicating this intention. Over half intended to engage in key branches of aquaculture, including fingerlings/fry production, grow-out/broodstock production, feed milling, and fishery extension (Table 2). Additionally, more than half of OOU students expressed interest in fish processing, whereas fewer FUNAAB students preferred this area.

Table 3: *Percentage distribution of students by motivators of intention to practise aquaculture at FUNAAB and OOU University.*

Motivators	*FUNAAB (n = 121)*	*OOU (n = 60)*	*ALL (n = 181)*
Training received encouraged me to want to practise fish farming	64.7	51.5	59.5
Aquaculture is a profitable/lucrative enterprise	10.3	11.4	10.7
Persuasion by parents and relatives	97.3	87.9	94.1
Aquaculture is simple and easy to start up	20.8	13.6	18.2
Unemployment rate is very high	65.0	51.0	59.7
Desire to be self employed	81.1	67.4	76.5
Desire to be a job creator not job seeker	99.0	91.4	96.3
Access to land	94.9	91.4	93.6
Access to credit facilities	47.3	45.7	46.7

Table 4: *Percentage distribution of students by de-motivators of intention to practise aquaculture at FUNAAB and OOU University.*

De-motivators	*FUNAAB (n = 121)*	*OOU (n = 60)*	*ALL (n = 181)*
Aquaculture is not a recognised profession	90.9	66.7	82.4
Aquaculture is capital intensive and expensive to start	45.5	66.7	52.9
It is a risky venture	27.3	83.3	47.1
Strong aversion to aquaculture	12.7	100.0	82.4
Lack of professionalism	81.8	100.0	88.2
Lack of access to credit loan facilities	36.4	83.3	52.9
Non-availability of markets for fish produce	81.8	66.7	76.5
Non-availability of storage facilities	90.9	100.0	94.1
I am not confident managing an aquaculture business alone	45.5	83.3	58.8
Non-availability of processing facilities	54.5	83.3	64.7
A better job is awaiting me after graduation	63.6	33.3	52.9
Discouragement from parent(s)	18.2	16.7	7.6
Some aquaculture graduates remain unemployed years after graduation	72.7	50.0	64.7

3.3 Motivators and de-motivators of students' intention to practise aquaculture

Career motivations included prior training, parental/relative persuasion, high youth unemployment, perceived profitability of aquaculture, desire for self-employment, aspiration to create jobs, and access to land (Table 3). These factors were important for students at both institutions, although proportions were generally higher among FUNAAB respondents.

About 9 % of students did not intend to engage in aquaculture. The main de-motivators included lack of professionalism, limited storage facilities and market access, low professional recognition, and unemployment among some aquaculture graduates. While patterns were similar across institutions, OOU students were more likely to perceive aquaculture as risky, whereas FUNAAB students were more likely to anticipate a better job after graduation (Table 4).

3.4 Training needs of students

Training needs, presented as mean and standard deviation (Table 5), indicate that students required more training in fingerlings production/breeding, pond construction, fish processing, fish marketing, and pond maintenance. Although both institutions prioritised similar areas, FUNAAB students reported higher training needs than OOU students.

3.5 Envisaged challenges of aquaculture and fisheries students

Table 6 shows challenges envisaged by students, including lack of capital, limited access to credit facilities, and inadequate access to suitable land and perennial water sources. Both FUNAAB and OOU students reported similar proportions.

Table 5: *Distribution of students by training needs at FUNAAB and OOU University.*

	FUNAAB (n=132)		*OOU (n=66)*		*ALL (n=198)*	
Training needs	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*
Site selection	1.52	0.69	1.45	0.64	1.50	1.07
Pond construction	1.61	0.63	1.47	0.65	1.57	1.05
Fish species	1.41	0.75	1.38	0.74	1.40	1.07
Fish marketing	1.51	0.69	1.51	0.65	1.51	1.11
Fish processing	1.47	0.67	1.52	0.63	1.52	1.15
Fingerlings production/ breeding	1.58	0.65	1.58	0.67	1.58	1.12
Pond maintenance	1.51	0.71	1.50	0.69	1.51	1.11

Table 6: *Percentage distribution of students by envisaged challenges of fisheries students at FUNAAB and OOU University.*

Envisaged challenges	*FUNAAB (n = 121)*	*OOU (n = 60)*	*ALL (n = 181)*
Non-availability of capital	93.2	95.5	93.9
Lack of access to perennial source of water	79.5	83.3	80.8
Inadequate access to suitable land	80.3	83.3	81.3
Lack of access to credit loan facilities	87.1	89.4	87.9

4 Discussion

The findings indicated that aquaculture and fisheries-related courses in Ogun State were predominantly taken by younger students, mainly female, single, and whose parents were not involved in aquaculture. Despite their youth, these students are mature enough to make informed career decisions. Similar observations regarding students' age, gender, and marital status were reported by Ojebiyi *et al.* (2015), Barau & Adesiji (2018), and Precious & Abubakar (2019). In contrast, Abdulshakur & Sulaiman (2021) reported male dominance among agricultural students in some

northern Nigerian universities, likely reflecting regional differences in access to higher education for girls, as secondary school completion is rarer in northern Nigeria. The predominance of unmarried students suggests that career decisions, including the intention to practise aquaculture, are largely independent of spousal or partner influence, as most undergraduates prioritise completing their studies before marriage.

Most aquaculture and fisheries students (91.4 %) expressed the intention to practise aquaculture after graduation, with similar proportions at FUNAAB (91.7 %) and OOU (90.1 %). This aligns with previous studies (Ojebiyi *et al*., 2015; Omotosho *et al*., 2020; Akintayo & Lawal, 2016) showing that students in agriculture-related courses are generally willing to pursue careers in their field. Students' intention to engage in aquaculture offers potential benefits for national economic growth and food security. Apart from launching their own businesses, academically high-achieving students may also secure paid employment in the public or private sectors. As final-year students transition from education to the workforce, their intentions are shaped by personal goals, exposure to academic instruction, and perceived career prospects.

Students showed a preference for fingerlings/fry production, grow-out/broodstock production, feed milling, and fisheries extension. This is consistent with Ifejika *et al*. (2015), who reported that grow-out/table-size production was a top choice among young aquaculture entrepreneurs. The popularity of these branches may be due to higher perceived returns on investment and greater visibility of successful practitioners.

Motivators for pursuing aquaculture included prior training, parental and relative persuasion, high youth unemployment, perceived profitability, self-employment aspirations, desire to create jobs, and access to land (Barau & Adesiji, 2018; Ojebiyi *et al*., 2015). These findings align with the Social Cognitive Career Theory, which posits that self-efficacy beliefs, outcome expectations, and career goals interact with socio-economic status, gender, culture, social support, and perceived barriers to influence educational and professional choices (Blanco, 2011, cited in Akosah-Twumasi *et al*., 2018). This suggests that aquaculture and fisheries students have substantial potential to contribute to the economy and enhance food and nutrition security through post-graduation engagement in the sector.

Conversely, students unwilling to pursue aquaculture cited reasons previously reported in the literature, including the industry's lack of recognition, unemployment among graduates, availability of better jobs, and inadequate processing, storage, and marketing infrastructure (Inegbedion & Islam, 2021). Societal perceptions of an enterprise therefore influence its attractiveness as a career option.

The overall positive perception of aquaculture among students supports findings by Abdulshakur & Sulaimon (2021), who noted favourable views among final-year agriculture students in northern Nigeria. However, Olushola *et al*. (2016) reported unfavourable opinions among students at Kogi State University, likely due to the inclusion of new students lacking sufficient training. By contrast, the current study surveyed only final-year and SIWES students who had completed at least four years of rigorous classroom and hands-on training.

Despite comprehensive theoretical and practical instruction, students indicated a need for additional training to operate aquaculture businesses optimally after graduation. This reflects the evolving nature of aquaculture value chains, where continuous learning is necessary regardless of prior education or experience. Similar findings were reported by Ajala *et al*. (2017), who observed that even experienced fish farmers in Lagos State required training in pond maintenance and fingerling care. Interruptions in academic programmes, such as strikes by the Academic Staff Union of Universities, may contribute to gaps in students' understanding; nevertheless, this does not diminish the quality of prior training received.

Insufficient access to productive resources, including land, infrastructure, and credit facilities, also emerged as a constraint on students' willingness to practise aquaculture. These findings corroborate reports by Balana & Oyeyemi (2022) and Bassey *et al*. (2016), who identified poor infrastructure and limited access to land and credit as barriers to smallholder aquaculture in Nigeria. Such limitations may explain why some graduates choose not to pursue careers in aquaculture.

In summary, students' attitudes towards aquaculture as a career are greatly affected by how they perceive the involvement of young people in the sector. Those with a positive attitude are more likely to intend to practise aquaculture, suggesting that showcasing successful youth engagement could inspire career interest. Key motivators include aspirations for self-employment, job creation, and the high youth unemployment rate. In order to support these intentions, the government and other stakeholders should facilitate access to land, funding and other resources. Meanwhile, departments offering aquaculture programmes should implement awareness campaigns that emphasise the economic, social and environmental benefits of aquaculture as a viable and attractive career option.

Conflict of interest

The authors declare that they have no conflict of interest.

References

Abdulshakur, M. M., & Sulaiman, U. (2021). Determinants of youths' intention in agribusiness using theory of planned behavior. *Journal of Agripreneurship and Sustainable Development*, 4(1), 159–164.

Adekunle, T. A., Adeagbo, A., Olabode, O. B., Sharafa, A. F., Nwafor, S. A., Bankole, D. O., Bamidele, N. A., & Ikenweiwe, N. B. (2024). Investigation on secondary school students' choice of aquaculture as an entrepreneurial study in Abeokuta South, North and Odeda LGAs, Nigeria. *Journal of Aquatic Sciences*, 39(2), 239–249.

Adelodun, O. B. (2015). Participation of youth in aquaculture. *Journal of Aquaculture Research and Development*, 6, 386.

Ajala, A. O., Kolawole, E. A., Owolabi, A. O., & Faseyi, S. A. (2017). Analysis of training needs of fish farmers in Ikorodu Local Government Area of Lagos State, Nigeria. *Nigerian Journal of Animal Production*, 44(5), 132–140.

Akintayo, O. I., & Lawal, B. O. (2016). Willingness of youth to practise agriculture: Implications for farm succession and sustainable farming systems in Nigeria. https://ifsa.boku.ac.at/cms/fileadmin/IFSA2016/IFSA2016_WS52_Akintayo.pdf.

Akosah-Twumasi, P., Emeto, T. I., Lindsay, D., Tsey, K., & Malau-Aduli, B. S. (2018). A systematic review of factors that influence youths career choices: The role of culture. *Frontiers in Education*, 3, 1–15.

Anyanwu, S. (2025). Diversification and revitalization of Nigeria economy. https://fmino.gov.ng/diversification-and-revitalization-of-nigeria-economy/.

Balana, B. B., & Oyeyemi, R. A. (2022). Agricultural credit constraints in smallholder farming in developing countries: Evidence from Nigeria. *World Development Sustainability*, 1, 100012. doi: 10.1016/j.wds.2022.100012.

Barau, A. A., & Adesiji, G. B. (2018). Socioeconomic determinants influencing the willingness of agriculture undergraduates to participate in agripreneurship in Northwest Nigeria. *International Journal of Agricultural Management and Development*, 8(1), 25–34.

Bassey, N. E., Edet, M. E., & Agom, D. I. (2016). Impact of institutional funding on agricultural labour productivity in Nigeria: A co-integration approach. *Agricultural Science Research Journal*, 6(2), 49–55.

Blanco, . (2011). Applying social cognitive career theory to predict interests and choice goals in statistics among Spanish psychology students. *Journal of Vocational Behavior*, 78, 49–58. doi: 10.1016/j.jvb.2010.07.003.

Bosompem, M., Dadzie, S. K. N., & Tandoh, E. (2017). Undergraduate students' willingness to start own agribusiness venture after graduation: A Ghanaian case. *Contemporary Issues in Entrepreneurship Research*, 7, 75–105.

Chinonyerem, N. T., Uzoma, O. C., Okechukwu, A. J., & Ndikom, O. C. (2020). Gap analysis evaluation of Nigeria's fish demand and production: Empirical evidence for investment in and policy development for offshore mariculture practices. *International Journal of Fisheries and Aquatic Studies*, 8(3), 384–394.

Federal University of Agriculture, Abeokuta [FUNAAB] (2025). Department of Aquaculture and Fisheries Management. https://funaab.edu.ng/section/aquaculture-and-fisheries-management/.

Glover, D., & Sumberg, J. (2020). Youth and food systems transformation. *Frontiers in Sustainable Food Systems*, 21(4), 101–112.

Ifejika, P. I. (2015). *Assessment of fish farmers' mobile information behaviour towards mobile phone innovative platform services in selected states of Nigeria*. Ph.D. thesis LAUTECH, Ogbomosho, Oyo State, Nigeria.

Ifejika, P. I., Asadu, A. N., Enwelu, I. A., Sanni, A. O., Nwabeze, G. O., & Omeje, J. E. (2015). Determining youth choice of enterprise in aquaculture production for job creation in Abia State, Nigeria. *Nigerian Journal of Fisheries*, 12(1), 891–897.

Inegbedion, G., & Islam, M. M. (2021). Willingness and motivation of Nigerian youth to pursue agricultural careers after graduation. *Journal of Agripreneurship and Sustainable Development*, 4(1), 159–164.

Nigerian Bureau of Statistics (2021). Statistical data on Nigerian economy and development. http://www.nigerianstat.gov.ng/.

Nigussie, L., Minh, T. T., & Sellamuttu, S. (2024). Youth inclusion in value chain development: A case of aquaculture in Nigeria. *CABI Agriculture and Bioscience*, 5, 44. doi: 10.1186/s43170-024-00243-0.

Ogunji, J., & Wuertz, S. (2023). Aquaculture development in Nigeria: The second biggest aquaculture producer in Africa. *Water*, 15(24), 4224. doi: 10.3390/w15244224.

Ojebiyi, W. G., Ashimolowo, O. R., Odediran, O. F., Soetan, O. J., Aromiwura, O., & Adeoye, O. (2015). Willingness to venture into agriculture-related enterprises after graduation among final year agriculture students of Federal University of Agriculture, Abeokuta. *International Journal of Applied Agricultural and Apicultural Research*, 11(1&2), 103–114.

Olaoye, O. J., & Ojebiyi, W. G. (2018). Marine fisheries in Nigeria: A review. In *Marine ecology – Biotic and abiotic interactions* (pp. 155–173). Available online: http://dx.doi.org/10.5772/intechopen.75032.

Olushola, J. S., Onuche, U., & Abubakar, H. (2016). Perception of Kogi State University agricultural students on farming as a career. *International Journal of Sustainable Agricultural Research*, 3(4), 72–81.

Omorogiuwa, O., Zivkovic, J., & Ademoh, F. (2014). The role of agriculture in the economic development of Nigeria. *European Scientific Journal*, 10(4), 133–147.

Omotosho, A., Asani, E., Ayegba, P., & Ayoola, J. (2020). Impact of agricultural education on students' career choice: A survey. *International Journal of Emerging Technologies in Learning*, 15(3), 51–61.

Precious, C. E., & Abubakar, S. J. (2019). Determinants of Nigerian youths' choice of career in agriculture: A case of Zamfara State. *Journal of Business Management & Accounts Studies*, 2(1), 1–8.

Saba, A. O., Eyo, V. O., Elegbede, I. O., Fakoya, K. A., Ojewole, A. E., Dawodu, F. O., Adewale, R. A., & Amal, M. N. A. (2024). Sustaining the blue bounty: Fish food and nutrition security in Nigeria's evolving blue economy. *AIMS Agriculture and Food*, 9(2), 500–530. doi: 10.3934/agrfood.2024029.

Subasinghe, R., Siriwardena, S. N., Byrd, K., Chan, C. Y., Dizyee, K., Shikuku, K., Tran, N., Adegoke, A., Adeleke, M., Anastasiou, K., Beveridge, M., Bogard, J., Chu, L., Fregene, B. T., Ene-Obong, H., Cheong, K. C., Nukpezah, J., Olagunju, O., Powell, A., Steensma, J., & Phillips, M. (2021). Nigeria fish futures: Aquaculture in Nigeria – Increasing income, diversifying diets and empowering women. Report of the scoping study. Penang, Malaysia: WorldFish. Program Report: 2021-16.