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Factors Affecting The Livelihood Of The Small-Scale Fish Farmers (Seap Beneficiaries) In Oyo State, Nigeria

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Abstract
A study to identify constraints faced by small-scale fish farmers participating in Self-Reliance Economic Advancement Program (SEAP) in Oyo State was conducted. The study employed a multistage sampling technique to select 140 beneficiaries. Primary data were obtained using structured questionnaires and analyzed using descriptive statistics and Tobi regression. The study results showed that 90.71% of the respondents were male with mean age of 41 years. Most (74.29%) of the respondents were married with 99.29% having 1-4 household members. Most (56.43%) of the respondents also had secondary. The regression analysis revealed significant correlation between beneficiaries' livelihoods and factors such as age, primary occupation, membership of farmers' cooperative associations or groups, years of fish farming experience, and access to credit ($p< 0.01$, $p< 0.05$ and $p<0.10$). To build upon this findings, the intervention should be scaled up and out, with the SEAP intensifying efforts to replicate the programme and extend its reach to more farmers.

Keywords: *livelihood, farmers, fish, SEAP, small-scale*

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I. Introduction

Self-Reliance Economic Advancement Programme (SEAP) is a business oriented, non-profit sharing, non-political, non-religious and Non-Governmental Organization (NGO) that started operations in 1998 with voluntary membership but was officially registered in 2000. SEAP is dedicated primarily to economic empowerment of the undeprivileged, capacity building, and improvement of the socio-economic condition of the poor. SEAP is a committed organization to the promotion of Small and Medium Enterprises (SMEs) in Nigeria. SEAP has long be playing a pivotal role for small and medium-sized enterprises in the consolidation of viable market-oriented enterprise structures. SEAP seeks to promote sustainable livelihood for the less privileged in the society (SEAP, 2017).

Livelihood is a set of economic activities (activity of making, providing, purchasing or sell goods and services) involving self-employment or wage employment by using one's endowment to generate adequate resources for meeting the requirements of self and household. This is usually carried out repeatedly; as such it becomes a way of life (Abdullahi, 2015).

Despite the Federal Government's effort in introduction of many intervention agencies, all failed to meet the target of improving the livelihood of small scale fish farmers. Government at various level and non-governmental developmental agencies have tried their best to improve livelihood of small scale fish farmers, but despite these efforts, the livelihood of small scale fish farmers are yet to match the expectation (Olojede et al., 2020).The major aim of SEAP is to make people self-reliance rather than depending on white collar job through the provision of credit and the encouragement of personal savings. On realising the importance of small scale farmers in the study area, SEAP was introduced with the aim of improving their livelihood (Reconnaissance survey, 2021). There is infrequency of empirical information on the impact of participation in Self-Reliance Economic Advancement Programme (SEAP) on the livelihood of small scale fish farmers in Oyo State. Therefore, this research was carried out to know whether the aim of SEAP is being achieved or not. The specific objective of the study was to determine the factors affecting the livelihood of the small-scale fish farmers (seap beneficiaries) in Oyo State.

II. Methodology

The study was carried out in Oyo State is an inland State in south western Nigeria. Its capital is Ibadan, the third most populous city in the country and formerly the second most populous city in Africa (NBS, 2022). A three stage sampling procedures was used for this study. In the first stage, out of ten (10) Local Government Areas in Oyo State that benefited from the SEAP loan, six (6) Local Government Areas were randomly

selected. The Local Government Areas are; Ido, Atiba, Egbeda, Oluyole, Akinyele, and Iseyin. In the second stage, two (2) fish farming communities were purposely selected from each of the six Local Government Areas making up a total of 12 communities, these communities was selected because the fish farmers in the areas are well trained by SEAP and population of fish farmers is so high in the area compare to other communities. Reconnassance survey was conducted to identify the SEAP loan beneficiaries in the State. This was carried out with the help of SEAP officials. The third and final stage, the Slovian formula was used to get the sample size from the sample frame of small scale fish farmers (that is 215 sample frame).

A structured questionnaire was used to interview one hundred and forty (140) SEAP loan beneficiaries who benefited from the programme. Tobi regression Descriptive statistics such as frequencies, percentages, means and inferential statistics such as Tobit regression were utilized.

III. Results And Discussion

Demographic characteristics of Oyo State SEAP small scale fish farmers

Presented in Table 1 is the demographic characteristic of Oyo State SEAP small scale fish farmers. The result revealed that 90.71% of the respondents among the beneficiaries were male, while 9.29% were female. The distribution for the non-beneficiaries showed that 90.11% were male while 9.89% constituted female. This showed that the majority of respondents were male which means that males are more dominant in the fish farming business in the study area than females and more males participated in the SEAP. This confirmed the findings of Olojede *et al. (*2020), who affirmed that the fish farming is primarily a male-dominated activity in the study area than women. The low representation of females in small scale fish farming could be attributed to their involvement in off-farm activities such as food vendors, hairdressing, tailoring and petty trading.

The minimum and maximum age range of benefiting small-scale fish farmers was 41 and 70 years respectively and the minimum and maximum age of non-benefiting small-scale fish farmers was 43 and 70 years respectively. The mean ages were 41and 43 years of beneficiaries and non-beneficiaries respectively. Findings showed that most of the beneficiaries (38.57%) fall within the age bracket of 31-40 years while most of the non-beneficiaries (42.66%) fall within the age bracket of 31-40 years. These findings imply that the majority of the respondents belong to the active young and middle age. This simply explains the full involvement of the active age group in fish farming. This aligned with assertion of Akerele *et al*. (2019), who affirmed that fish farmers the study area are predominantly their middle age and active. The implies that the industry is characterized by energetic and capable individual who can handle the physical demands of farm operations. This is a positive indication for the sustainability and growth of the fish farming sector in the study area.

The majority of the beneficiaries (74.29%) and non-beneficiaries (77.62%) were married. This showed that there were many married farmers in the study area. This is in agreement with the findings of Akerele *et al*. (2019), who found that that most small scale fish farmers were settled family men and women with responsibilities. It is also in agreement with the assertion of Iroegbu *et al*. (2021) ,who found that most loans were given to married small sale fish farmers.

The result showed that the majority of the beneficiaries had secondary education (56.43%) followed by those with tertiary education (39.29%) and primary education (3.57%). The majority of the non-benefiting farmers (50.35%) had secondary level of education followed by those with tertiary education (46.15%) and primary education (3.50%). A higher percentage of benefiting farmers had secondary education compared to the non-benefiting farmers. Iroegbu *et al*. (2021) findings revealed that all the respondents have one form of formal education or the other, and it is very important to say here that the level of education influences their awareness in modern fish farming practice.

The maximum and minimum household size for both beneficiaries and non-beneficiaries were 6 and 0 respectively. Most of the beneficiaries (99.29%) and non-beneficiaries (99.30%) had 1-4 members in their household, only (0.71%) beneficiaries and (0.70%) non–beneficiaries had 5-8 members in their household. This is a negative indication that there would be need for more hired labour for farm work and it is not in agreement with Enimu *et al*. (2016) that upheld that the larger the family size, the more likelihood of sustainable labour, as these family members become part of the labour force. The result showed that a higher percentage of beneficiaries (92.14%) had access to credit compared non- beneficiaries (89.51%). This is not in agreement with assertion of Odunjo *et al*. (2018),who reported that most small scale fish farmers lacked access to credit due to shortage of loanable funds. Instead this study suggests that beneficiaries had better access to credit, potentially due to their involvement in the programme.

Findings from the study revealed that majority of the beneficiaries (62.9%) had access to extension service while 24% of non-beneficiaries had access extension service. The higher extensions contact would increase adoption of improved farm production technologies. The result in indicated that 58.7 % of the beneficiaries and 62.4% of non- beneficiaries were members of cooperative society. These findings with

assertion of Akerele *et al*. (2019), who noted that most small scale farmers in the study area are members cooperative society. The result showed the distribution of small scale fish farmers by years of experience in fish farming. The result showed that years of fish farming experience among the small scale fish farmers in the study area ranged from 60 to 40 years, with the majority of beneficiaries (48.57%) having 1-10 years of experience and non-beneficiaries (60.14%) having11-20 years of experience. This finding aligned with study of Okidim, and Obe-Nwaka, (2021), who noted that experienced fish farmers can effectively utilize credit facilities and are well versed in farming fundamentals.

The result from the table revealed that 35.71% of the beneficiaries and 23.08% of non-beneficiaries were engaged in fish farming as their main activity, while others were involved in alternative farming activities, civil service, artisan, or trading. The finding suggested that many small scale fish farmers in the study area rely on fish farming as their primary source of income, and may supplement their income with financial resources gathered from other occupations. This result contradicted the assertion of Okidim, and Obe-Nwaka, (2021) who affirmed that most of aquaculture farmers in the study area were part time fish farmers, highlighting the diversity of experience among small scale fish farmers. The result indicated that beneficiaries predominantly used inherited land(48.57%), while non-beneficiaries rely on personal land (47.55%). This finding highlight the disparities in the land access between the two groups. The result showed that the beneficiaries had higher average stock size of 4,752, while non-beneficiaries had average stock size of 3,241. The maximum and minimum stock size of the beneficiaries are 75,000 and 200 fish seedlings respectively while the maximum and minimum stock size for beneficiaries are 20,000 and 600 fish seedlings respectively. This implied that the credit facility from SEAP had positive influence on stock density of the beneficiaries.

Result showed that majority of both beneficiaries(83.6%) and of the non- beneficiaries (82.5%) predominantly used hired labour for farm work.. This contradicted the findings of Odunjo *e*t *al*. (2018) who asserted that mean household size of 5 people would make farming activities less laborious due to division of labour. The result presented in Table 1 showed that fish farming income of beneficiaries ranged from ₦200,000.00 to ₦18,000,000.00 with an average income of ₦2,145,714.00, while fish farming income of non-beneficiaries ranged from ₦150,000.00 to ₦5,000,000.00 with an average income of ₦1,178,671.00. Other agricultural activities generated income between ₦100,000.00 and ₦4,000,000.00 with an average of and average income of ₦1,256,014.00. The data revealed that beneficiaries tend have higher average income from fish farming compared to non-beneficiaries, consistent with findings of Olojede *et al. (*2020), that microcredit programmes can enhance small scale fish farmers' annual income and their total annual expenditure in the study area.

Table 1: Demographic characteristics of Oyo State SEAP small scale fish farmers

Variables	**Beneficiaries**		**Non-beneficiaries**	
Sex	**Frequency**	**Percent**	**Frequency**	**Percent**
Female	13	9.29	15	10.49
Male	127	90.71	128	89.51
Total	**140**	**100**	**143**	**100**
Age (years)				
21-30	27	19.29	13	9.09
31-40	54	38.57	61	42.66
41-50	32	22.86	33	23.08
51-60	20	14.29	26	18.18
61-70	7	5.00	10	6.99
Total	**140**	**100**	**143**	**100**
Mean	41		43	
Min	27		28	
Max	70		70	
Marital status				
Not married	14	10.00	12	8.39
Married	104	74.29	111	77.62
Divorced	18	12.86	15	10.49
Separated	4	2.86	5	3.50
Total	**140**	**100**	**143**	**100**
Level of education				
No formal education	1	0.71	0	0
Primary education	5	3.57	5	3.50
Secondary education	79	56.43	72	50.35
Tertiary education	55	39.29	66	46.15
Total	**140**	**100**	**143**	**100**
Household size of the respondents				
0-4	139	99.29	142	99.30
5-8	1	0.71	1	0.70
Total	**140**	**100**	**143**	**100**

Mean	2		2	
Min	0		0	
Max	6		6	
Access to credit				
No	11	7.86	15	10.49
Yes	129	92.14	128	89.51
Total	**143**	**100**	**143**	**100**
Access to extension services				
No	52	37.1	56	39.16
Yes	88	62.9	87	60.84
Total	**140**	**100**	**143**	**100**
Member of farmers' cooperative society				
No	57	40.71	54	37.76
Yes	83	59.29	89	62.24
Total	**140**	**100**	**143**	**100**
Years of fish farm experience				
1-10	68	68	33	23.08
11-20	57	57	86	60.14
21-30	10	10	22	15.38
31-40	5	5	2	1.40
Total	**140**	**140**	**143**	**100**
Mean	14		14	
Min	6		7	
Max	40		40	
Primary occupation				
Fish farming	50	35.71	33	23.08
Civil service	37	26.43	36	25.17
Artisan	27	19.29	32	22.38
Farming	24	17.14	41	28.67
Others	2	1.43	1	0.70
Total	**140**	**100**	**143**	**100**
Source of land				
Personal land	56	40.00	68	47.55
Inherited	68	48.57	56	39.16
Rented/ lease	16	11.43	19	13.29
Total	**140**	**100**	**143**	**100**
Stock size (stock density)				
Mean	4,762		4,762	
Min	200		200	
Max	75,000		75,000	
Primary Sources of Farm Labour				
Family	23	16.4	25	17.5
Hired	117	83.6	118	82.5
Total	**140**	**100**	**143**	**100**
Total Income from Fish Farming	**₦**		**₦**	
Mean	2,145,714.00		1,178,671.00	
Min	200,000.00		150,000.00	
Max	18,000,000.00		5,000,000.00	

Source: Field survey, 2024

Factors Affecting the Livelihood of the Small scale Fish Farmers (SEAP Beneficiaries)

The result in Table 4.19 presented the result of Tobit regression analysis, with a Pseudo R^2 of 0.0611 indicating that about 6.11% of total variation in livelihood is explained by the independent variables. Six of the fourteen independent variables had significant coefficients.

The coefficient of age (0.0565) was found to be positive and statistically significant at 1% level. This indicates that age positively influence the livelihood transformation of the small scale farmers. This means that, a unit increase in age leads to a 0.0565 increment in livelihood transformation, suggesting that older small scale farmers tend to have greater improvement in their economic well-being, potentially due to accumulated experience, skills and, social capital over the years. This is in line with the findings of Akerele *et al.* (2019), who concluded that a unit increase could be a positive transformation to the growth of small scale fish farmers in the study area.

The coefficient of access to credit (0.8939) was found to be positive and statistically significant at 5% level. This indicates that access to credit positively influence the livelihood transformation of the small scale farmers. This means that, a unit increase in access to credit leads to a 0.8939 increment in livelihood transformation, indicating that enhanced credit accessibility and enhance substantial improvement in the livelihood of the small scale fish farmers, enabling them to transform their economic circumstances and improve their overall well-being. This is confirmed by the findings of Iroegbu *et al*. (2021), who found that the access to loan helped the fish farmers to expand the scope of their operation, purchase more equipment to enhance their fishing activities, increase over-all output, increase revenue and enhance income.

The coefficient of primary occupation (0.6943) was found to be positive and statistically significant at 1% level. This indicates that primary occupation positively influence the livelihood transformation of the small scale farmers. This means that, a unit increase in primary occupation leads to 0.6943 increment in livelihood transformation, indicating that small scale fish farmers who have a primary occupation within or outside major occupation in fish farming tend to have greater improvement in their economic well-being, potentially due to diversified income streams and reduced dependence on a single livelihood source.

The coefficient of access to extension services (0.5973) was found to be positive and statistically significant at 10% level. This indicates that access to extension services positively influence the livelihood transformation of the small scale farmers. This means that, a unit increase in access to extension services leads to 0.5973 increment in livelihood transformation, implying that small scale fish farmers who receive guidance and support from extension service tend to have greater improvement in their economic well-being, potentially due to information disseminated by the extension agents in enhancing knowledge, skills, and technology adoption.

The coefficient of membership in farmers' cooperative society (-0.8737) was found to be negative and statistically significant at 5% level. This indicates that membership in farmers' cooperative society negatively influence the livelihood transformation of the small scale farmers. This means that, a unit increase in membership in farmers' cooperative society leads to -0.8737 reductions in livelihood transformation, indicating that small scale fish farmers who participate in cooperative society may face challenges in achieving livelihood advancements, possibly due to collective decision making processes, shared resources or restricted market opportunities. This contradict the assertion of Olojede *et al. (*2020), that a unit increase membership of cooperators will be transformed to increment in farmers livelihood development in the study area.

The coefficient of years of fish farming experience (-0.0540) was found to be negative and statistically significant at 10% level. This indicates that years of fish farming experience negatively influence the livelihood transformation of the small scale farmers. This means that, a unit increase in years of fish farming experience leads -0.0540 reductions in livelihood transformation, suggesting that small scale fish farmers with extensive experience in collective farming may face challenges in adapting to changing market condition, adopting new technology, or improving their livelihoods, leading to reduced economic mobility.

These findings indicate that age, access to credit, primary occupation, and access to extension service positively influence livelihood transformation, while cooperative society membership and years of fish farming experience negatively influence livelihood transformation.

Table 2: Factors Affecting the Livelihood of the Small-Scale Fish Farmers (SEAP Beneficiaries)

Variables	Coefficient	Std. Err	T	P>|t|
Sex	-0.0968	0.3772	-0.26	0.798
Age	0.0565***	0.0216	2.61	0.010
Total years of education	-0.0085	0.0347	-0.25	0.806
Marital status	-0.4313	0.4185	-1.03	0.305
Household size	-0.0119	0.1535	-0.08	0.938
Access to credit	0.8939**	0.4396	2.03	0.044
Membership in Farmers' Cooperative Society	-0.8737**	0.3442	-2.54	0.012
Years of Fish Farming Experience	-0.0540*	0.0317	-1.70	0.091
Primary occupation	0.6943***	0.2459	2.82	0.006
Source of land for fish farming	-0.0723	0.1643	-0.44	0.661
Stock size	-8.55e-07	1.64e-06	-0.52	0.603
Source of labour	0.1778	0.3032	0.59	0.559
Access to Extension Service	0.5973*	0.3249	1.84	0.068
Income from fish farming	-8.84e-08	6.24e-08	-1.42	0.159
_cons	-1.5385	0.9224	-1.67	0.098
var(e.liveindex)	1.2526	0.1835		

*Log likelihood = -200.5412, LR chi2(14) = 26.11, Prob > chi2 = 0.0250 ,Pseudo R2 =0.0611, Note, *, **, *** represent significance at 10%, 5% and 1%.*

Source: Field survey, 2024

IV. Conclusion And Recommendation

It was revealed that age, primary occupation, access to credit and access to extension service were positively and statistically significant variables. At the same time, members of farmers' cooperative associations or groups and years of fish farming experience were negatively and statistically significant, which are major factors affecting the livelihood of the small-scale fish farmers (SEAP beneficiaries) in the study area. Scaling up and out the intervention is recommended. Specifically, the SEAP should intensify efforts to replicate the programme, expanding its reach and benefits to more farmers.

References

[1] Abdullahi, Y. M. (2015). Impact Of Forestry-Ii Project On The Livelihoods Of Farmers In Kano State, Nigeria. A Thesis Submitted To The School Of Postgraduate Studies, Ahmadu Bello University, Zaria,In Partial Fulfillment Of The Requirements For The Award Of Doctor Of Philosophy Degree In Agricultural Extension And Rural Sociology.

[2] Akerele, E.O., Ilori, A. R., Fadipe, M.O., Oluwasanya, O.P., & Ayodele, J. O.,(2019). Effects Of Cooperative Loan On Small Scale Fish Farming Business In Oyo State, Nigeria, Journal Of Social Sciences, Kampala International University Issn: 2413-9580; 5(3): 7–17.

[3] Enimu, S., Igiri, I., & Achike, I.A.,(2016).,Analysis Of The Effects Of Microfinance Banks Loans On The Livelihood Of Small-Holder Farmers In Delta State, Nigeria: Economic Affairs Citation: Doi: 10.5958/0976-4666.2016.00049.8, September 2016 ©2016 New Delhi Publishers.

[4] Iroegbu, L., Okidim, I.A., & Ekine D.L.,(2021).,Impact Of Bank Loan On Artisanal Fishing In Rivers State: A Case Of Bank Of Agriculture (Boa), International Journal Of Innovative Research& Doi No. : 10.24940/Ijird/2021/V10/I1/Jan21007.

[5] Nbs(2022). National Bureau Of Statistic. Demographic Statistics Bulletin

[6] Odunjo, V.O., Osawe, W.O. & Okoruwa, V.O.(2018). Effect Of Micro- Of Small Scale Entrepreneurs In Nigeria: A Case Study Of Oyo State Credit On Welfare, Journal Of Sustainable Development Studies, Issn 2201-4268.11(1):69-93.

[7] Olojede, M.O., Rasaki, W.A., Adeoye, A.,Amoo, O.,& Olayanju, A.I.,(2020). Impact Of Farmers' Cooperative Society Membership On Rural Household Livelihood Development In Oyo State, International Journal Of Research And Scientific Innovation (Ijrsi).Issn 2321–2705 7(5):2321-2705.

[8] Seap, (2017). Self- Reliance Economic Advancement Programme (Seap) 2017 Edition Handbook.