



Assessment of factors Affecting Sustainability of Non-farm Livelihood Activities among Rural families in Emuoha Local Government Area, Rivers State, Nigeria

Nwaogwugwu, O. N.*, Umejuru, W.O.

Department of Agricultural Economics and Extension, Faculty of Agriculture, University of Port Harcourt, Nigeria.

*Corresponding Author

Abstract: *The study analyzed the factors affecting sustainability of non-farm livelihood activities among rural families in Emohua Local Government Area of Rivers State, Nigeria. The specific objectives of the study were to describe the socio-demographic characteristics of the respondents, identify the non-farm livelihood activities of rural families and ascertain the factors affecting sustainability of non-farm livelihood activities among families in the study area. A multi-stage sampling technique was used to select 105 family-heads from a total of 350 family-heads in the study area. A structured and validated interview schedule was used to collect data from the respondents. Data collected were presented using mean, frequency, percentage factor analysis. The result indicated that the non-farm livelihood strategies of families in the study area include, trading (mean=3.98), commercial taxi services (mean=3.91), bicycle and motor cycle repair services (mean=3.71), tailoring/weaving (mean=3.53), barbing/hairdressing services (mean=2.85), carpentry (mean=3.33), mason and building (mean=3.34), food vending (mean=3.19). The factors affecting sustainability of non-farm livelihood activities include inadequate infrastructural facilities, instability, and low income to investment. It is concluded that non-farm livelihood activities in the study area are sustainable. Therefore it is recommended that continued effort on the provision of basic rural infrastructures should be intensified through a coordinated and sustainable rural development drive by groups, communities, government and non-governmental agencies.*

Key words: *Sustainability, Non-Farm Livelihood Activities, Rural Families*

INTRODUCTION

Livelihood activities refer to the means of securing the basic necessities (food, water, shelter and clothing) of life. It could be further seen as a set of activities involving securing water, food, fodder, medicine, shelter, clothing and the capacity to acquire the above necessities working either individually or as a group by using endowments (both human and material) for meeting the requirements of his/her household on a sustainable basis with dignity (Wikipedia 2016). Livelihood patterns may also be seen as activities, assets and the access that jointly determine the living gained by the rural households.

In the developing countries such as Nigeria, many rural families depend on a variety of activities to meet their daily needs. Studies have identified farming to be the major livelihood activity engaged by inhabitants of rural areas (Ekong, 2005; Nwaogwugwu and Matthews-Njoku, 2015). Although most rural families in Nigeria use agriculture as their major means of livelihood, some also engage in non-farm livelihood patterns as alternative means of survival. The rural non-farm sector is often seen as an important pathway out of poverty (Lanjouw, 2001). The non-farm livelihood patterns which include okada

riding, agribusiness services, local construction and mining activities, petty trading, weaving, pottery, arts and crafts, mason, taxi driving, wheel barrow pushing among others may vary from one area to the other depending on available resources. Although described as non-farm, many of the activities are linked to agriculture and can actually take place on the farm (e.g. food processing, veterinary services etc) (Rijkers and Costa, 2012). The rural non-farm livelihoods among rural families cannot be considered homogenous but heterogeneous. Giving the multitude of constraints faced by households and heterogeneity of non-farm employment opportunities available to them, livelihood patterns vary widely (Barrett *et al.*, 2005). The heterogeneity can make generalization problematic and is a reason for our general lack of knowledge about rural non-farm economy (Haggblade *et al.*, 2007). There is a push for rural families with weak non labour assets and risky agricultural zones to allocate household labour to non-farm activities. Although households frequently do turn to non-farm livelihood patterns as risk reduction strategies but factors such as earning premia in terms of high income may drive rural families into non-farm employment. Another characterization is based on the type of livelihood patterns adopted. Consequently, families may adopt distinct livelihood patterns based on labour allocations, especially if certain patterns are found to offer higher returns than others.

For rural families facing crop and price risk as well as agricultural income risk, there is a strong need for diversification to non-farm livelihood patterns. This is the basis for sustainability in livelihood pursuits, which has attracted attention in livelihood studies in the last four decades, especially in developing countries. A livelihood is sustainable when it can cope with and recover from stress and shocks, maintains or enhance its capabilities and assets and provide continuous opportunities now and in future. The sustainability of non-farm livelihoods may be dependent on some factors deeply embedded in some phenomena, which may include security, socio-cultural factors, finance, climatic factors, technical know-how, socio-economic factors, basic social amenities, communication channels etc. Diversification in employment and income is pronounced among those rural households which have lower income levels and inadequate resource-base for engaging themselves in more productive income generating activities, whereas the rich households diversify their economic base to further boost their already higher income levels (Vatta and Sidhu, 2007). Sustainability can be measured in terms of their involvement in a particular non-farm livelihood as well as how it affects their standard of living. According to Organization for Economic Co-operation and Development (OECD) (2009) sustainability can be measured by evaluating the interaction between indicators such as economic, social and environmental phenomena. To locate these indicators in the positive pole of the development continuum as an evidence of the consequences of diversification in non-farm livelihoods in rural areas appears elusive.

Consequently, contribution of the rural sector to the overall national development has continued to dwindle, while many rural communities across Nigeria continue to make demands on government at all levels for the provision of rural amenities from limited national budget. The above background raised the need for the current study, which in specific terms; described the socio-demographic characteristics of the rural families in the study area, identified the non-farm livelihood activities of rural families, ascertained the sustainability of non-farm livelihood activities, and analyzed the factors affecting the sustainability of non-farm livelihood activities among rural families in the study area.

Methodology

The study was carried out in Emohua Local Government Area of Rivers State, Nigeria. Emohua Local Government lies between longitude 6° 51' E and 6° 39' E and latitude 4° 53' N and 4° 02' N. It is bounded in the North by Ikwere L.G.A, in the West by Ahoada L.G.A, in the South by Degema L.G.A, and in the East by Obio/Akpor L.G.A. Emohua Local Government Area has an area of 813 km² and an estimated population of about 201,901 people (Wikipedia, 2016). The sample frame is composed of 403 (four hundred and three) family-heads. A simple random sampling technique was used to select a sample size of 80 family-heads from 403 family-heads in the study area. Data for the study was collected with the aid of a structured questionnaire designed and validated by the researcher. The questionnaire was divided into two Sections. Section A sought for responses on the socio-demographic characteristics of the family heads

in the study area. Section B was divided into three parts. Part 1 contained list of items that solicited for responses on non-farm livelihood activities of family members in the study area; Part 2 contained livelihood sustainability indicators while Part 3 contained items on the factors affecting sustainability of non-farm livelihoods in the study area. Likert-type 4 point summated rating scale of agreement (strongly agreed (SA) = 4, Agreed (A) =3, Disagree (D) = 2, Strongly Disagree (SD) = 1) was used to measure the responses on the items. The mean of the sum total of values of the scale (Mean=2.50) was the basis for accepting or rejecting any item. Data analysis was carried out using descriptive statistical tools namely: frequency, mean and varimax rotated factor analysis. The extracted variables with co-efficient of 0.50 and above were used to rename the major factors according to Nwaogwugwu (2013).

Results and Discussion

Socio-demographic Characteristics of Rural Families in the Study Area.

Result on Table 1 shows the Socio-demographic characteristics of rural families in the study area. It was found that majority of the respondents (88.6%) are males. This is an indication that male members of the family are more prone to diversify to non-farm livelihood activities the study area. Result further show that majority of the respondents who engage in non-farm livelihoods fall within the age distribution 40-49 years and 50-59 years with 35.2% and 22.9% respectively. This age categories constitute the active work age of most individuals in most societies. On marital status, the result revealed that majority of the respondents is married (76.2%). It is obvious since involvement into non-farm livelihoods offers additional income to meet the family's welfare needs. The result also indicate that majority of the families covered in the study (60.0%), has a family-size of 4-6 persons. On the educational level of respondents, it was found that the majority of the respondents attained secondary school level of education (55.2%).

Table 1: Socio-demographic Characteristics of Rural Families in the Study Area

Variables	Frequency	Percentage
Sex		
Male	93	88.6
Female	12	11.4
Age		
20-29 years	24	22.9
30-39 years	14	13.3
40-49 years	37	35.2
50-59 years	24	22.9
60 years and above	6	5.7
Marital Status		
Single	19	18.1
Married	80	76.2
Divorced	-	-
Widow/Widower	6	5.7
Family size		
1-3	2	1.9
4-6	63	60.0
7-9	34	32.4
10-12	4	3.8
13 persons and above	2	1.9

Educational level		
No formal education	4	3.8
Primary	27	25.8
Secondary	58	55.2
Tertiary	16	15.2
Major occupation		
Civil service	11	10.5
Farming	19	18.1
Trading	21	20.0
Artisan	54	51.4
Farming Experience		
1-5 years	17	16.2
6-10 years	7	6.7
11-15 years	7	6.7
16-20 years	59	56.2
21 years and above	15	14.3

Source: Field Survey, 2017.

Non-Farm Livelihood Patterns of Rural Families in the Study Area.

Entries on Table 2 are the livelihood patterns engaged by members of the rural families in the study area. As indicated on Table 2, Trading (mean = 3.98), commercial cars/motorcycle services (mean = 3.91), Bicycle repairing (mean = 3.71), tailoring and weaving (mean = 3.53), traditional health attendants (mean = 3.37), local birth attendants (mean = 3.35), painting and beautification (mean = 3.34), mason (mean = 3.34), carpentry (mean = 3.33), carving/basket (mean = 3.28), electrical works and services (mean = 3.20), food vending (mean = 3.19), baking (mean 3.17), , welding and metal works (mean = 3.14), civil service (mean = 3.11), shoe making/repairing (mean = 2.87), barbing/hairdressing (mean = 2.86) are the non-farm livelihood activities engaged by rural families in the study area. The above findings corroborate with previous studies that found the non-farm livelihood patterns among rural households in Nigeria (Nwaogwugwu and Matthews-Njoku, 2014; Mathews-Njoku, E.C. and Nwaogwugwu, 2015i). The above non-farm livelihood patterns may have persisted in the study area since most of them could serve as either permanent adaptive strategies to the failure of farm livelihood patterns or coping strategies to cushion the shocks or stress when alternative livelihood patterns fail.

Table 2: Non-farm Livelihood Activities of Respondents

Variables	Mean	Remark
Trading	3.98	Accept
Commercial motorcycle services	3.91	Accept
Bicycle repairing	3.71	Accept
Tailoring/Weaving	3.53	Accept
Traditional health attendant	3.37	Accept
Local birth attendant	3.35	Accept
Painting and Beautification	3.34	Accept
Mason	3.34	Accept
Carpentry	3.33	Accept
Carving/Basket making	3.28	Accept

Electrical works an services	3.20	Accept
Food vending	3.19	Accept
Baking	3.17	Accept
Welding and metal works	3.14	Accept
Civil service	3.11	Accept
Shoemaking/Repairing	2.87	Accept
Barbing/Hairdressing Services	2.86	Accept
Pottery	1.50	Reject

Sources: Field Survey, 2017.

Sustainability of non-farm livelihood activities in the study area.

Result on the indices measuring sustainability of non-farm livelihood activities are presented on Table 3. The result revealed that the non-livelihood patterns investigated provide positive linkage with other livelihoods (mean = 3.68). This obtains since each of the livelihood patterns compliment the other livelihoods in the study area by providing needed support for effective operation of the other livelihoods. It was also found the livelihood patterns were adaptable to local environment (mean = 3.67). Sustainability is guaranteed when any livelihood pattern is adaptable to social, cultural and physical environment of any society. The result further indicate that the investigated livelihood patterns make use of indigenous knowledge and skills available in the study area.(mean = 3.62). This is the expression of the local knowledge system and technology level in the area. It is therefore obvious that for any livelihood pattern to be sustainable, it must be suitable and amenable to the indigenous knowledge. Other indicators as confirmed by the respondent include the fact that non-livelihood patterns are easily accessible to every member of the community (mean = 3.58), environmentally friendly (mean = 3.54), require minimal investible capital (mean = 3.46), contributes to the growth of local economy (mean = 3.43), provides all year employment (mean = 3.42), engages household members on a daily basis (mean = 3.37), enhances rural-urban linkage (mean = 3.34), adapts to local resources (mean = 3.34), provide reliable income (mean = 3.10). The above results indicate that the non-farm livelihood activities investigated in the study area are sustainable.

Table 3: Respondents Rating of the Sustainability of Non-Farm Livelihood Activities in the Study Area

Variables	Mean	Remark
Positive linkage with other livelihoods	3.68	Accept
Adaptable to local environment.	3.67	Accept
Make use of indigenous knowledge and skills	3.62	Accept
Easily accessible to every member of the community	3.58	Accept
Environmentally friendly	3.54	Accept
Minimal investible capital	3.46	Accept
Contributes to the growth of local economy	3.43	Accept
Provides all year employment	3.42	Accept
engages household members on a daily basis	3.37	Accept
Enhances rural-urban linkage	3.34	Accept
Adaptable to local resources.	3.34	Accept
Provide reliable income	3.10	Accept
Overall Mean	3.46	

Sources: Field Survey, 2017.

Factors Affecting Sustainability of Non-Farm Livelihood Patterns in the Study Area.

The result of the varimax rotated factor matrix on factors affecting sustainability of non-farm livelihood patterns in the study area is presented on Table 4. With regards to item loadings, factor 1 renamed as inadequate infrastructural facilities include major loaded items such as inadequate road network (0.887), inadequate resources (0.868), poor power supply (0.866). The challenge of inadequacy of infrastructures in all its ramifications in rural Nigeria has continued to attract attention in development research over the years. This is in realization of the critical role of rural infrastructure to support and enhance livelihoods, welfare and overall national development. Factor 2 was renamed instability and embraced major loaded items such as unstable Policy support systems (0.768), social insecurity (0.696), political instability (0.536), and seasonal variability (0.547). It becomes difficult for livelihoods to thrive in a society characterized with chaos, unstable socio- political and economic conditions. Also factor 3 on Table 4 is renamed as low income to investment and made up of major loaded items such as inadequate availability of implements and equipments (0.718), Poor capital base (0.685), poor returns on investment (0.608) and low skill improvement (0.643). Livelihood patterns are supposed to provide needed income for families to offset expenses on basic and welfare needs of the family. However, survival is threatened; as accruable income from such livelihood patterns does not match the family needs profile.

Table 4: Respondents Rating of Factors Affecting Sustainability of Non-Farm Livelihood Patterns in the Study Area.

Items	Factor1: Inadequate infrastructural facilities	Factor2: Instability	Factor3: Low income to investment
Inadequate communication network	0.887	0.188	-0.044
Inadequate resources	0.868	0.031	0.405
Unstable policy support systems	0.004	0.768	0.057
Inadequate availability of implements and equipments.	0.053	0.419	0.718
Poor power supply	0.866	0.361	0.042
Poor capital base	0.024	0.057	0.685
Poor returns on investment	0.090	0.019	0.608
Social insecurity	0.099	0.696	0.021
Political instability	0.048	0.536	0.324
Non-adaptability to local condition.	0.075	0.053	0.372
Seasonal variability	0.037	0.547	0.451
Inadequate resources	0.636	0.048	0.024
low skill improvement	-0.008	0.027	0.643

Source: Field Survey Data, 2017.

Note: Coefficients on the Table above represents regression weights.

Conclusion

Based on the findings, it is concluded that non-farm livelihood activities engaged by families in the study area are sustainable. However, some factors which center on inadequate infrastructural facilities, instability, and low income to investment have the tendency to affect sustainability of the livelihood patterns of the families in the study area.

Recommendations

Based on the findings, it is recommended that continued effort on the provision of basic rural infrastructures should be intensified through a coordinated and sustainable rural development drive by groups, communities, government and non-governmental agencies. Besides, effective security

arrangements and consciousness should be put in place in rural areas by communities and government in Nigeria

References

1. Barrett, C., Bezuneh, M., Clay, D. & Reardon, T. (2005). Heterogeneous constraints, incentives and income diversification strategies in rural Africa. *Quarterly Journal of International Agriculture* 44(1), 37–60.
2. Ekong, E.E. (2005). *An Introduction to Rural Sociology*. 3rd Edition, Dove Educational Publishers, Uyo, Nigeria.
3. Haggblade, S., Hazell, P. & Reardon, T. (2007). Introduction. In Haggblade, S, Hazell, P & Reardon, T (Eds), *Transforming the Rural Nonfarm Economy*. Johns Hopkins University Press, Baltimore.
4. Lanjouw, P. (2001). Non-farm employment and poverty in rural El Salvador. *World Development*, 29(3):529–47.
5. Mathews-Njoku, E.C. and Nwaogwugwu, (2014). Cultural factors affecting livelihood strategies of rural households in South East Nigeria: Implication for Agricultural Transformation Agenda, *RJOAS*, 12(36): 18-28.
6. Nwaogwugwu, O. N. (2009). Analysis of Factors affecting Choice of Rural Livelihood Strategies in Southeast Nigeria. *Unpublished Ph. D Thesis. Federal University of Technology, Owerri*.
7. Nwaogwugwu, O. N., & Matthews-Njoku, E. C. (2015). Social factors affecting livelihood strategies of rural households in South-East Nigeria: Implication for rural development. *Nigerian Journal of Rural Sociology*, 15(2202-2019-1029), 87-94.
8. OECD. Publishing. (2007). *Promoting Pro-Poor Growth: Policy Guidance for Donors*. Organisation for Economic Co-operation and Development.
9. Pavithra, S., & Vatta, K. (2013). Role of non-farm sector in sustaining rural livelihoods in Punjab. *Agricultural Economics Research Review*, 26(347-2016-17093), 257-265.
10. Rijkers, B., & Costa, R. (2012). *Gender and rural non-farm entrepreneurship*. The World Bank.
11. Wikipedia. (2016). Emohua, retrieved on 28/02/11. From <http://en.wikipedia.org/wiki/Emohua>.