Full Length Research Paper

Analysis of occupational diversification among rural women in Anambra State, Nigeria

Ajani E. N. and Igbokwe E. M.

Department of Agricultural Extension, Faculty of Agriculture, University of Nigeria, Nsukka, Nigeria.

Received 09 July, 2012; Accepted 19 February, 2013

The study examined determinants of occupational diversification among rural women in Anambra State, Nigeria. Interview schedule was used to collect data from a sample of four hundred and sixty-two rural women. Data were analysed using percentage, mean score, standard deviation and factor analysis. The duration of the study was between August 2010 and June 2011. Results of the study indicated that the major reasons for occupational diversification were assurance of household food security (M= 3.8), generate additional income (M= 3.8), control of available additional income (M=3.7), reduction of poverty and vulnerability (M= 3.6) and so forth. The study recommends that appropriate measures should be put in place by the federal, state and local government councils in order to ensure adequate training opportunities of rural women on skill acquisitions for greater involvement in occupational diversification.

Key words: Occupational diversification, rural women, Anambra State, Nigeria.

INTRODUCTION

Occupational diversification has become widespread in sub-Saharan Africa in the last two decades. Saith (2002) defined occupational diversification in rural areas as the reallocation and recombination of all economic activities which display sufficiently strong rural linkages, irrespective of whether they are located in designated rural areas or not. According to Mukhopadhyay and Lim (2005), occupational diversification comprises two types, namely: those ventures that are administered on an approximately steady basis with an objective of generating surplus and registering growth and hiring labour and with a certain degree of technical sophistication; and products or activities which are usually seasonal, managed exclusively with the help of unpaid family labour, relying on primal technology and catering mostly to the local market characterized primarily by petty production. The author defines occupational diversification in this context as all economic activities, which involve farm and non-farm activities in rural areas. One important reason for occupational diversification is

population growth and increased pressure on natural resources. In addition, the difficulties for small-scale farmers to make a living out of agriculture in generally risk-prone environments have been exacerbated by economic reform and have become an important push factor for diversification (Tacoli, 2002). Non-farm activities have become an important component of livelihood strategies among rural households. Different studies have reported an increasing share of non-farm income in total household income (De Janvry and Sadoulet, 2001; Ruben and Van de Bercy, 2001; Haggblade et al, 2007). The reasons for observed income diversification include declining farm incomes and desire to insure against agricultural production risk (Lanjouw, 1999). Households are pulled into the off-farm activities when returns to nonfarm employment are higher and less risky than in agriculture. Also when farming is less profitable and more risky due to population growth and market failures, many households are pushed into non-farm activities (lbekwe, et al, 2010).

Diversification is widely understood as a form of selfinsurance in which people exchange some foregone expected earnings for reduced income variability achieved by selecting a portfolio of assets and activities

^{*}Corresponding author. E-mail:vnglajani@yahoomail.com

that have low or negative correlation of incomes (Alderman and Paxson, 1992; Reardon et al. 2000). The notion of self-insurance is an ex ante concept of risk mitigation. Coupling weakly covariate pursuits diversified across sectors (for example crop production and seasonal metalworking) or space (for example migration) can reduce household income variability. If, as is widely believed, risk aversion is decreasing in income and wealth, then the poor will exhibit greater demand for diversification for the purpose of ex ante risk mitigation than do the wealthy. The fact that diversification rises with wealth or income in both absolute and proportional terms in rural Africa (Reardon, 1997; Reardon et al, 1998; Barrett et al, 2000) underscores that risk mitigation cannot satisfactorily explain observed patterns of nonfarm activity on the continent.

Occupational diversification challenges conventional wisdoms about poverty reduction in rural areas of low income countries. Diversification takes place in order to overcome risk and seasonality in natural resource-based livelihoods, but it also reflects the failure of agriculture to deliver improving livelihoods in the post-liberalisation era. Poverty and vulnerability are often associated with undue reliance on agriculture rather than the converse. Those farms achieving yield growth often do so due to cash resources generated from non-farm activities, rather than being the origin of growth in such activities as is the conventional wisdom (Ellis, 2004).

According to Ellis (2004) occupational diversification possesses positive attributes for poverty and vulnerability reduction. It is partly predicated on, and itself increases, human capital in terms of experience, skills and willingness to innovate. It generates earnings and remittances that alter the options open to the household by providing it with cash resources that can be flexibly deployed. It contributes to lessening vulnerability by ameliorating risk and reducing the adverse consumption effects of seasonality.

Two fundamental causes of diversification are well understood, and hardly need elaborating. These are seasonality and risk. The degree to which it is necessary to diversify for seasonality reasons evidently varies according to the robustness of the underlying farm basis of people's livelihoods, the degree to which farmers are able to realise cash income from market sales, and their confidence in the ability of markets to provide food supplies at reasonable prices in the agricultural lean season. In situations where all these factors are deteriorating, perhaps due to declining farm sizes and erratic markets, it is to be expected that diversification for this reason might rise over time. Similar considerations apply to risk reasons for diversifying. Risk induces women to enter off-farm activities for pure diversification reasons even when returns are low. Both risks and time poverty prevent women farmers from adopting labour intensive agricultural activities, regardless of the returns (Renata, 2009).

Diversification choices are also firmly rooted in the microeconomic logic of farming households. The availability of key-assets (such as savings, land, labour, education and/or access to market or employment opportunities and access to other public goods) is an evident requisite in making rural households and individuals more or less capable to diversify (Dercon and Krishan 1996; Abdulai and Crole 2001).

The nature of diversification can vary widely, according to who undertakes it, wealthy or low-income households, urban-based or rural-based, etc. Among low income households, diversification is often a survival strategy for risk minimisation and income stabilisation. It also usually involves low-skilled, low-paid and often temporary employment. Among higher-income groups, by contrast, diversification is often an accumulation strategy aiming at maximising profits by investing across sectors. Bettereducated workers are more likely to gain access to remunerative or secure employment. However, the opportunities and constraints affecting each group vary by location, and are closely intertwined with geographic, ecological, historical and economic characteristics. Hence the wide range of views on whether diversification increases or equalises social differentiation (Ellis, 1998).

Chambers (1997) has argued that poor people, in particular normally have to diversify sources of livelihood in order to survive in a risk-prone and uncertain world. This is especially true for West Africa, since Sahelian people have historically preferred to diversify than to intensify primary production activities (Painter, Sumberg and Price, 1994). This has led many of them to build up a wide portfolio of activities. Thus, diversification may be important to maintain livelihoods by providing flexibility among sources of income, in case primary activities fail (Berry, 1989). It may also satisfy the need to acquire some cash income to enable purchases of essential goods and services, which are increasingly commoditized (soap, dairy products, organic or chemical fertiliser and so forth) and to pay school fees, medical/health clinic costs and government taxes. Hence, both push factors (for example environmental risk, falling incomes) and pull factors (for example changing terms of trade, perceptions of improved opportunities) may be involved in spurring on the process of occupational diversification.

Reardon et al (1992) provide evidence that in West Africa, occupational diversification is associated with higher incomes and food consumption, and more stable incomes and consumption over the whole year (Bernstein et al 1992). Likewise, Connell et al 1995) and Stark and Lucas (1998) working respectively in Asia and Africa, support claims that remittances from migrants are key elements in boosting agricultural productivity. Evans and Ngau (1991) suggest that non-farm income provide risk insurance that enable farmers to adopt new production methods and thereby raise output. Taylor and Wyatt (1996) point out that diversification of occupation is useful in helping farmers overcome both risk and credit market

constraints, and this is supported elsewhere (Reardon, 1997). So diversification may lead to increased investment in local production. Berry (1989) argues that poor producers are unlikely to be able to use income from livelihood diversification for agricultural intensification, but rather use it to support consumption and essential current expenses in order to survive.

There is wide agreement that a fundamental motivation for diversification out of primary production is environmental uncertainty related to climatic variability (in particular, low and unreliable rainfall and drought). Diversification of income-earning activities is a key factor because farming in Africa is usually so risky: crop yields are subject to the uncertainties of rainfall and input supply, and farming incomes are subject to the uncertainties of both yields and prices (Bernstein et al, 1992). The questions therefore are: What are the socioeconomic characteristics of rural women? What are the areas of occupational diversification among rural women? And what are the reasons for occupational diversification among rural women?

The study therefore sought to:

- i. ascertain socio-economic characteristics of rural women in Anambra State, Nigeria;
- ii. identify areas of occupational diversification among rural women; and
- iii. ascertain reasons for occupational diversification among rural women.

METHODOLOGY

The study was carried out in Anambra State, Nigeria. There are four agricultural zones in the state, namely; Aguata, Anambra, Awka and Onitsha. The estimated population of rural women in Anambra State is 2.13 million (NPC, 2006). The population of the study comprised rural women in the four agricultural zones. All the four agricultural zones were purposively used for the study. Anambra zone is made up of four (4) extension blocks comprising 45 circles; Awka zone comprises five (5) blocks and 35 circles, while Aguata zone is made up of six (6) extension blocks, comprising 45 circles. There are also six (6) extension blocks comprising 30 circles in Onitsha zone. Two (2) rural blocks were selected from each of the zones, while three (3) circles were selected from each of the blocks using simple random sampling. In each of the circles, 20 rural women were selected using simple random sampling. Eight (8) blocks and 24 circles, comprising 480 respondents were supposed to be used for the study. Eighteen copies of the questionnaire were not filled properly and were dropped leaving 462 used for analysis. Data for the study were collected using interview schedule/questionnaire.

The first section sought information on socio-economic characteristics of the rural women. Respondents were asked to indicate their actual age in years; they also

indicated whether they were single, married or widowed. Respondents were requested to indicate the actual number of years spent in school and number of persons eating from the same pot in their households. They were asked to state the number of years they had been involved in agricultural activities, also indicated an estimated hectares of the total farmland they have and type of farming practiced, whether crop, livestock production or both.

Second section which focused on areas of occupational diversification among rural women was achieved by asking the respondents to count the occupations they engaged in, such as production, marketing and processing of farm produce; rearing of farm animals; handicrafts; petty trading; tailoring; hair dressing; catering services; teaching; public service; traditional health care services; wage labour, among others.

Reasons for occupational diversification were the focus of the third section. The respondents reacted to thirty possible reasons such as overcome risks and seasonality in natural resource base, assurance of household food security, deteriorating conditions of agriculture as a result of climate variation, increased availability of capital, reduction of poverty and vulnerability, generate additional income, improving labour market opportunities, high dependency ratio, increase in scarcity of arable land, lack of access to farm inputs, among others, using a four point Likert-type scale of "strongly disagree (1)", "disagree (2)", "agree (3)" and "strongly agree (4)". The values on the Likert-type scale were added to obtain 10, which was further divided by 4 to obtain a mean value of 2.5. This was used to determine the major reasons. Any mean value that was equal or higher than 2.5 was regarded as a major reason. Percentage, mean score, standard deviation and factor analysis were used for data analysis.

RESULTS AND DISCUSSION

Socio-economic characteristics of rural women

Majority (60.5%) of the respondents were within the age range of 40-59 years (Table 1). The mean age of the respondents was 50.0 years. This implies that majority of the respondents were middle aged and in their productive years, hence greater involvement in both farm and nonfarm activities. The standard deviation was 11.72 as shown in Table 1. This shows that ages of the respondents vary so much. The finding is in agreement with Abdulai and Crole (2001) who show that the probability of participation in non-farm work increases when women are 30 years and thereafter reduces as they grow older. As rural women grow older, there is a possibility of less involvement in the number of occupations carried out by such individuals and vice versa. Before then child-care and other domestic responsibilities prevent them from making greater

Table 1. Percentage distribution of socio-economic characteristics of the respondents (n= 462)

Variable	Percentage	Mean (M)	Standard deviation (SD)
Age (years)			
20-29	5.2		
30-39	14.2		
40-49	27.1	50.0	11.72
50-59	33.4		
60-69	15.9		
70 and above	4.2		
Marital status			
Single	5.4		
Married	69.3		
Widowed	25.3		
Years spent in school (years)			
No formal education	6.7	8.5	4.53
Primary school attempted	12.5		
Primary school completed	28.8		
Secondary school attempted	11.2		
Secondary school completed	25.3		
OND/NCE holders	8.9		
HND/first degree	6.6		
Household size (numbers)			
1-5	62.8		
6-10	36.8	4.9	1.82
11 and above	0.4		
Farming experience (years)			
0-9	20.6		
10-19	34.9		
20-29	21.2		
30-39	13.2	20.1	13.62
40-49	6.6		
50 and above	3.5		
Size of farmland (hectares)			
< 1.0	35.7		
1.1-2.0	51.7		
2.1-3.0	7.8	1.3	1.08
3.1-4.0	3.5		
4.1-5.0	1.3		
Type of farming*			
Crop production	84.6		
Livestock production	43.5		
Mixed farming	51.9		

^{*}Multiple responses

contributions.

A greater proportion (69.3%) of the respondents were married. This shows that most of the respondents have husbands who may be providing support for them in their activities, either financially or otherwise. Oberhauser and

Pratt (2004) note that married people have responsibility for provision of household needs of their families hence greater involvement in occupational diversification for economic empowerment.

Data on level of education of the respondents (Table 1)

reveal that majority (93.3%) was literate. The mean year of formal education was 9 years. The standard deviation was 4.53. This indicates that the level of education of the respondents vary so much, showing that there were those with higher education as well as those without formal education. This implies that with a majority of the respondents having formal education they are better equipped to enter into various occupations. The findings agree with Ranjan (2006) who asserts that the level of education increases participation rate in occupations for rural women. Educated rural women are likely to possess skills which facilitate successful involvement in non-farm activities. This includes the ability to manage a business, process relevant information and adapt to changing demand patterns. They also have greater aspirations with regard to working outside agriculture.

Majority (62.8%) of the respondents had a household size of 1-5 persons. The mean household size was 5 persons. Size of household can be a key variable in determining whether the respondents should diversify their occupations. Large household size could serve as source of labour for farming activities. This is in agreement with Economic and Social Commission for Asia and the Pacific (ESCAP), (1999) which reports that rural families are characterized by large family size, demanding for greater involvement in occupational diversification in order to meet up with household responsibilities. Emodi (2009) reiterates that rural households in Nigeria are characterized by high number of members with high dependency ratio.

About 45% of the respondents had over 19 years of farming experience with mean farming experience of 20.1 years. The standard deviation was 13.63. This shows that the farming experience of the respondents vary much from the mean. This implies that most of the respondents have been farming for quite a long period of time. This can help them to diversify more into farm activities such as crop and livestock production. Rural women with many years of experience in farming are more likely to diversify into agricultural activities making use of the wealth of experiences they have acquired over the years.

Majority (52.0%) of the respondents reported farm sizes of 1.1-2.0ha with a mean farm size of 1.3 hectares. The standard deviation was 1.08. This indicates that majority of the respondents were small-scale farmers who produce at a subsistence level. The finding is not surprising considering the high population density of 4.18 million in the State. This is in agreement with Africa Fertilizer Summit (2006) which reports that small scale farmers cultivate between 0.8 and 1.3 hectares of land in forest areas of the country. Ekong (2003) reiterates that lands are communally owned in most rural areas in South eastern Nigeria and this results in fragmentation of farmlands, leaving farmers with small pieces of land that are scattered.

Majority (84.6%) of the respondents were involved in crop production, while 51.9% of them were involved in

both crop and livestock production. This implies that the respondents were involved in both crop and livestock production. This is to enable them sustain their families economically. The ability to be involved in both crop and livestock production may serve as an avenue for raising capital for non-farm activities. The finding is in agreement with Reardon (1997) who concludes that most rural women depend on crop and livestock activities for their incomes. This in itself is a form of diversification and insurance against risk.

Areas of occupational diversification among rural women

Majority (88.1%) of the respondents were involved in planting of crops, 79.2% of them were involved in marketing of farm produce, about 42% kept goat and sheep, 40.5% kept chicken, among others (Table 2). This implies that the respondents were involved in mixed farming. This is to enable them sustain their families economically. This will also help them to guard against crop failure as well as providing safety nets for economic empowerment.

Table 2 also indicates that 88.7% of the respondents were involved in non-farm occupations, while 11.3% of them were not involved in non-farm occupations. This shows that there were respondents whose occupation was farming only. They did not have secondary occupation thus engaging in full-time farming.

A greater proportion (58.2%) of the respondents were involved in petty trading, 10.4% were involved in tailoring, 6.9% were teachers, 6.2% were involved in making of confectioneries, while 5.6% of them were involved in hair dressing/weaving of hairs, among others (Table 2). This implies that the respondents were involved in both farm and non-farm occupations. This is to enable them obtain additional income to empower themselves financially. The findings are in line with Haggblade (1999) who reports that women dominate many of the non-farm activities such as petty trading, tailoring and many services that will grow most rapidly during structural transformation. Continuing, he notes that they also hold a major interest in many of the declining rural non-farm occupations such as basket making. Consequently, women will be key actors in the economic transition of Africa's rural economy.

Reasons for occupational diversification among rural women

The major reasons for occupational diversification indicated by the respondents included: assurance of household food security (M=3.8), generate additional income (M=3.8), control of available additional income (M=3.7), reduction of poverty and vulnerability (M=3.6)

Table 2. Percentage distribution of respondents according to areas of occupational diversification (n= 462)

Areas of occupation*	Percentage	
Farm occupation		
Planting of arable crops (yam, cocoyam, cassava, maize, vegetables and rice)	88.1	
Marketing of farm produce	79.2	
Processing of cassava into gari	2.6	
Processing of cassava into dough (fermented flour)	2.6	
Processing of cassava into chips/flour	3.5	
Processing of maize into pap and flour	4.7	
Processing of oil palm into palm oil	3.0	
Processing of oil palm into palm kernel oil	3.4	
Rearing of farm animals such as goat and sheep	42.2	
Rearing of chicken	40.5	
Rearing of turkey	14.7	
Pig farming	5.0	
Snail farming	0.2	
Fish farming	0.4	
Involvement in non-farm occupation		
Yes	88.7	
No	11.3	
Non-farm occupation		
Handicrafts such as making of brooms	3.5	
Making of baskets	2.4	
Making of hand fans	0.9	
Making of beads	0.4	
Petty trading on food items such rice, beans, gari and palm oil		
	58.2	
Tailoring/making of dresses	10.4	
Making of confectioneries such as cake, chin-chin, meat pie and buns		
	6.2	
Making of soap and pomade	2.5	
Frying of beans balls, yams and potatoes	3.6	
Hair dressing/weaving of hair	5.6	
Teaching	6.9	
Traditional birth attendance	0.9	
Public service	5.2	
Catering service	3.2	
Wage labour	0.6	

^{*}Multiple responses

and increase in family responsibilities (M= 3.5). Other reasons included: acquisition of capital for further investment (M= 3.5), overcome risk and seasonality of natural resource base (M= 3.4), source of additional employment (M= 3.3), seasonality of farming activities (M= 3.3), economic empowerment of women (M= 3.2), among others (Table 3). The variations in standard deviation indicate that there was no uniformity as regards the responses of the respondents and this gave rise to disparities on the various reasons indicated by the

respondents for occupational diversification. It therefore implies that the respondents were engaged in occupational diversification in order to reduce poverty and vulnerability, cope with seasonality of farming activities, acquire additional incomes as well as have control over such incomes and empower themselves economically for increased family responsibilities. Urbanization which was also one of the reasons for occupational diversification expands the market for rural enterprises and encourages non-farm activities in

Table 3. Mean score of reasons for occupational diversification among rural women (n= 462)

Reasons	Mean (M)	Std. Deviation	(SD)
Overcome risk and seasonality in natural resource base	3.4	0.853	
Assurance of household food security	3.8	0.449	
Deteriorating conditions of agriculture as a result of climate variation	2.6	1.021	
Increase in availability of capital	3.5	0.690	
Reduction of poverty and vulnerability	3.6	0.615	
Generate additional income	3.8	0.482	
Improving labour market opportunities	2.7	0.886	
Decline in yields of crops as a result of declining soil fertility	2.2	0.966	
Source of additional employment opportunities	3.3	0.923	
High dependency ratio	3.1	0.991	
Increase in scarcity of arable land/cultivable land	2.2	1.000	
Lack of access to farm input markets	2.9	0.966	
Economic empowerment of rural women	3.2	1.010	
Control of available additional income	3.7	0.550	
Seasonality of farming activities	3.3	0.749	
Risk insurance against crop failures	3.0	0.869	
Shortage of farm labour	2.8	0.933	
Improved transport facilities to urban areas	3.1	0.947	
Proximity to towns and access to infrastructure	3.0	0.929	
Urbanization which leads to expansion of markets in rural enterprises	3.0	0.940	
Access to good road networks	3.2	0.905	
Proximity to urban markets	2.8	0.850	
Population pressure on natural resources	2.5	1.011	
Increase in family responsibilities such as payment of children's school fees and house rent	3.5	0.773	
Acquisition of capital for further investment	3.5	0.638	
Increase in self-esteem and knowledge	3.2	0.822	
Husband is unemployed	2.0	1.094	
Seasonal attacks of pests and diseases	3.0	0.936	
Access to market information	2.9	0.911	
Improved communication networks	3.2	0.935	

neighbouring rural areas to meet demands. The findings are in agreement with Ellis (2004) which states that occupational diversification possesses positive attributes for poverty and vulnerability reduction. Continuing, he notes that occupational diversification contributes to lessening vulnerability by ameliorating risk and reducing the adverse consumption effects of seasonality. Berry (1989) reiterates that diversification may be important to maintain livelihoods by providing flexibility among sources of income, in case primary activities fail. It may also satisfy the need to acquire some cash income to enable the purchase of essential goods and services and to pay school fees, medical/health clinic costs and government taxes.

Factor analysis of reasons for occupational diversification among rural women

Table 4 shows the factor analysis of reasons for

occupational diversification among rural women. Based on the item loadings, factors 1, 2, 3 and 4 were named personal, production, marketing and socio-economic reasons, respectively. These factors represent the major reasons for occupational diversification among rural women. Factors which loaded high under personal reasons included: economic empowerment of women (0.50), control of available additional income (0.53), improved transport facilities (0.75), proximity to towns (0.85), urbanization which leads to expansion of markets in rural enterprises (0.79) and access to good road networks (0.76). Proximity to urban towns, improved transport facilities as well as urbanization can open up opportunities for rural women to diversify their occupations since movement to urban towns for economic activities becomes easier. The findings are supported by Visaria and Basant (1994) who observe that improved transport facilities allow many rural households to shift to non-farm occupations without necessitating a change in residence by commuting.

Table 4. Factor analysis of reasons for occupational diversification among rural women (n= 462)

Reasons	Factor 1(Infrastr uctural reasons)	Factor 2 (Producti on reasons)	Factor 3 (Marketing reasons)	Factor 4 (Socio- economic reasons)
Overcome risk and seasonality in natural resource base	0.337	0.282	0.518	0.194
Assurance of household food security	-0.030	0.120	0.059	0.510
Deteriorating conditions of agriculture as a result of climate variation	-0.284	0.713	0.098	0.066
Increase in availability of capital	-0.155	0.224	0.273	0.358
Reduction of poverty and vulnerability	0.236	-0.251	-0.120	0.543
Generate additional income	0.033	-0.233	-0.058	0.614
Improving labour market opportunities	0.124	0.100	0.675	-0.086
Decline in yields of crops as a result of declining soil fertility	-0.406	0.498	0.144	-0.206
Source of additional employment opportunities	0.380	-0.310	-0.005	-0.035
High dependency ratio	-0.183	0.455	0.327	0.454
Increase in scarcity of arable land/cultivable land	0.000	0.498	0.015	0.067
Lack of access to farm input markets	-0.054	-0.036	0.498	0.211
Economic empowerment of rural women	0.495	-0.256	0.098	-0.025
Control of available additional income	0.528	-0.090	0.175	0.270
Seasonality of farming activities	0.147	0.317	-0.098	0.421
Risk insurance against crop failures	0.179	0.629	-0.348	0.133
Shortage of farm labour	0.209	0.177	0.521	0.129
Improved transport facilities	0.752	-0.089	0.240	0.047
Proximity to towns and access to infrastructure	0.846	-0.034	0.060	0.044
Urbanization which leads to expansion of markets in rural enterprises	0.792	0.198	0.036	0.022
Access to good road networks	0.764	-0.040	0.270	-0.082
Proximity to urban markets	0.719	0.419	0.083	0.083
Population pressure on natural resources	0.088	0.632	0.258	-0.132
Increase in family responsibilities such as payment of children's school fees and house rent	-0.023	0.072	0.176	0.624
Acquisition of capital for further investment	0.182	0.300	0.191	0.465
Increase in self-esteem and knowledge	0.311	0.404	0.145	0.112
Husband is unemployed	-0.081	0.455	0.105	0.036
Seasonal attacks of pests and diseases	0.283	-0.013	0.582	-0.054
Access to market information	0.325	0.384	0.485	0.197
Improved communication networks	0.477	0.023	0.481	-0.040

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Production reasons comprised deteriorating conditions of agriculture as a result of climate variation (0.71), increase in scarcity of arable/cultivable land (0.50), risk insurance against crop failures (0.63), population pressure on natural resources (0.63), increase in self esteem and knowledge (0.40) and husband is unemployed (0.46). Changes in climate and risk insurance against crop failures can make the respondents to diversify in their occupations; this is because the climate is no longer reliable as regards to availability of rainfall for agriculture. In order to overcome this, there arises the need for them to diversify into farm and non-farm activities to guard against crop failures. Diversification of activities is a key factor because farming in Africa is usually risky: crop yields are subject to the uncertainties of rainfall and input supply, and farming incomes are subject to the uncertainties of both yields and prices.

The loadings under marketing reasons included:

overcome risk and seasonality in natural resource base (0.52), improving labour market opportunities (0.68), lack of access to farm input markets (0.50), shortage of farm labour (0.52), seasonal attack of pests and diseases (0.58) and access to market information (0.50). Lack of access to farm input markets such as fertilizers, shortage of farm labour which could be as a result of rural-urban migration of youths, seasonal attacks of pests and diseases can cause rural women to diversify into non-farm activities in order to ensure household food security.

Socio-economic reasons include: assurance of household food security (0.51), reduction of poverty and vulnerability (0.54), generate additional income (0.61), seasonality of farming activities (0.42), increase in family responsibilities such as payment of children's school fees (0.62) and acquisition of capital for further investment (0.47). Diversification may lead to increased investment in local production. It offers many opportunities, but also

brings high levels of financial and personal risk, and threatens traditional agrarian and family values. Rural women are unlikely to be able to use income from livelihood diversification for agricultural intensification, but rather use it to support consumption and essential current expenses in order to survive.

The four factors which loaded high based on the reasons for occupational diversification confirms Ellis' (2004) which notes that diversification takes place in order to overcome risk and seasonality in natural resource-based livelihoods and also reflects the failure of agriculture to deliver improved livelihoods in the post-liberalisation era. He also notes that poverty and vulnerability are often associated with undue reliance on agriculture rather than the converse.

CONCLUSION AND RECOMMENDATIONS

The results showed that most of the rural women were middle aged, literate and have a mean household size of five persons hence greater involvement in occupational diversification in order to meet the needs of members of their households. Majority of the rural women have been involved in farming for quite a number of years, having a mean farm size of 1.3 hectares. They were involved in occupations such as planting of arable crops, marketing of farm produce, processing of farm produce, petty trading, teaching, hair dressing, public service, among others. The rural women's farming experience did not deter them from engaging in occupational diversification, having a number of reasons for involving in such multiple occupations. This is to enable them cope with seasonality of farming activities since farming is rain-fed and obtain additional income to meet up with their economic and family responsibilities. There arose the need for government policies to promote the development of occupational skills among rural women through providing adequate training opportunities. Policy makers should advocate for policies that will meet economic empowerment needs of rural women in order to assist them in occupational diversification.

REFERENCES

- Abdulai A, Crole A (2001). Determinants of income diversification amongst rural household in Southern Mali. Food Policy, 26 (4), 437 452.
- Africa Fertilizer Summit (2006). Nigeria fertilizer strategy report. International Conference Centre, Abuja, pp 2-15.
- Alderman H, Paxson CH (1992). Do the poor insure? A synthesis of the literature on risk and consumption in developing countries, World Bank Policy Research Working paper, WPS, 1008.
- Barrett CB, Bezuneh M, Clay D, Reardon T (2000).

- Heterogeneous constraints, incentives and income diversification strategies in rural Africa, Mimeo. pp. 2-6
- Bernstein H, Crow B, Johnson H (1992). Rural livelihoods: Crises and responses, Oxford: Oxford University Press and The Open University. pp. 5-6
- Berry S (1989). Coping with Confusion: African Farmers' Responses to Economic Instability in the 1970s and 1980s, Boston: African Studies Center, Boston University.
- Chambers R (1997). Whose Reality counts: Putting the First Last. London: Intermediate Technology Publications, pp. 162-187.
- Connell J, Dasgupta B, Laishley R, Lipton M (1995). Migration from rural areas: The evidence from village studies, Brighton: Village Studies Programme, University of Sussex.
- De Janvry A, Sadoulet E (2001). Income strategies among rural households in
- Dercon S, Krishnan P. (1996). Income portfolios in rural Ethiopia and Tanzania: Choices and constraints. J. Dev. Stud., 32 (6), 850-875.
- Economic and Social Commission for Asia and the Pacific (ESCAP) (1999). Strengthening income generating opportunities for rural women in selected Asian countries. (Available at www.unescap.org/rural/doc/women/vi.rep of EGM.PDF).
- Economy. John Hopkins University Press Baltimore. Ellis F (1998). Household strategies and rural livelihood diversification. J. Dev. Stud., 35 (1), 1-38.
- Ellis F (2004). Occupational diversification in developing countries and implications for agricultural policy, Overseas Development Group (ODG), University of East Anglia, pp 1-3.
- Emodi AI (2009). Analysis of rice innovation system in Southeast Nigeria. PhD thesis, Department of Agricultural Extension, University of Nigeria, Nsukka, pp. 51.
- Evans HE, Ngau PM (1991). Rural-urban relations, household income diversification and agricultural productivity. Development and Change, 22 (3), 519-545.
- HaggbBlade S (1999). Farm- non-farm linkages in rural sub-Saharan Africa. World Dev., 17 (8), 1173 1201.
- Haggblade S, Hazell P, Reardon T (2007). Transforming the Rural Non-Farm
- Ibekwe UC, Eze CC, Ohajianya DO, Orebiyi JS, Onyemauwa CS, Korie OC (2010) Determinants of non-farm income among farm households in South East Nigeria. Researcher, 2(7), 1-4.
- Lanjouw P (1999). Rural non- agricultural employment and poverty in Ecuador. Economic Development and Cultural Change, 48(1), 91-122.
- Mexico: The role of off- farm activities. World
- Ajani and Igbokwe 427
- Development, 29(3), pp. 467-480.
- Mukhopadhyay S, Lim CP (2005). Development and div-

- ersification of rural industry in Asia, Asian and Pacific Development Centre, Kuala Lumpur.
- National Population Commission (NPC) (2006) National population census figure, Abuja, Nigeria.
- Oberhauser, A.M, Pratt, A. (2004) Women's collective economic strategies and political transformation in rural South Africa. J. Gend. Plann. Cult., 11(2), 206-228.
- Painter T, Sumberg J, Price T (1994). Your terror and my action space: Implications of differentiation, mobility and diversification for the approach terror in sahelian West Africa. Africa, 64 (4), 27-34.
- Ranjan S (2006). Occupational diversification and access to rural employment: Revisiting the non-farm employment debate Munich Personal Repec Archive (MPRA) pp 7870, 4-8.
- Reardon T (1997). Using evidence of household income diversification to inform study of the rural non-farm labour market in Africa. World Development, 25 (5), 735-748.
- Reardon T, Delgado C, Matlon P. (1992). Determinants and effects of income diversification among farm households in Burkina Faso. J. Dev. Stud, 28 (2), 264-296.
- Reardon T, Stamoulis K, Balisacan A, Cruz ME, Berdegue J, Banks B (1998) Rural non-farm income in developing countries, special chapter. In: FAO (eds.), The State of Food and Agriculture 1998, Rome: Food and Agricultural Organization of the United Nations.
- Reardon T, Taylor JE, Stamoulis K, Lanjouw P, Balisacan A (2000) Effects of non-farm employment on rural income inequality in developing countries: An investment perspective. J. Agric. Econ., 51 (2), 266-288.

- Renata S (2009). Gender and occupational choices in Africa: The role of time poverty and associated risks, paper presented at the FAO IFAD ILO workshop on gaps, trends and current research in gender dimension on agricultural and rural employment: differentiated pathways out of poverty, Rome 31st March 2nd April, 2009, pp 4-5.
- Ruben R, Van de Bercy M (2001). Non- farm employment and poverty alleviation of rural households in Honduras. World Development, 29 (3), 549-560.
- Saith A (2002). The Rural Non-farm Economy; Processes and Policies. Geneva, ILO.
- Stark O, Lucas R (1998). Migration, Remittances and the family, Economic Development and Cultural Change, 31, 190-196.
- Tacoli C (2002). Changing rural-urban interactions in sub-Saharan Africa and their impact on livelihoods: A summary, International Institute for Environment and Development, United Kingdom, pp 6-8.
- Taylor E, Wyatt T (1996). The shadow value of migrant remittances, income and inequality in a household-farm economy. J. Dev. Stud., 32 (6), pp. 899-912.
- Visaria P, Basant R (1994). Non-agricultural employment in India: Trends and prospects, Sage.