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INFLUENCE OF CAPACITY BUILDING TRAINING BY AGRICULTURAL MEDIA RESOURCES AND EXTENSION CENTRE (AMREC) ON RURAL FARMERS' LIVELIHOODS IN ODEDA LOCAL GOVERNMENT AREA OF OGUN STATE

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ABSTRACT

The role of extension service providers as practical problem-solving organizations in rural settings is targeted at poverty reduction, various mechanisms including capacity building training is adopted in achieving this. Purposive selection of hundred and twelve (112) beneficiaries from 14 communities was made. The mean age of respondents is 39years. The household size is 6persons and the farm size is 2.3hectares. Farming experience is 8years and the average yield is 184.6kg, average annual income after the training is N15, 732.00k. 62.5% and 37.5% of farmers respectively benefitted from crop and livestock training and also have access to hybrid stems and seeds. Results indicates positive relationship between farm size ($r = 0.397$, $p = 0.001$), farm yield ($r = 0.555$, $p = 0.004$) and farmers income ($r = 0.808$, $p = 0.002$), farmers' sex, ($\chi^2 = 10.63$, $df = 1$, $P > 0.05$) and the purpose of attending the training ($\chi^2 = 11.67$, $df = 4$, $P > 0.05$). The mean score of farmers' response on perception about the benefits of capacity building training on their livelihoods is 3.66. 95.5% and 80.4% strongly agreed that the training has assisted in poverty reduction and that it is a developmental issue targeted at building human resources.

Keywords: Influence, Capacity Building Training, Rural Farmers', Livelihoods

INTRODUCTION

Agriculture is the major livelihood activity in the rural areas of Nigeria. It generates employment for about 70 percent of Nigeria's population and contributes about 40 percent to the Gross Domestic Product (GDP) with crops accounting for 80 percent and livestock 13 percent of its contribution (Nigeria National Report, 2006). Despite the foregoing, Nigeria is a food-deficit nation and imports large amounts of grains, livestock products and fish. (Adhiambo, 2009). Although Nigeria's economy is agrarian, Nigeria is not agriculturally advanced yet. Peasant farming characterizes agricultural practice in Nigeria where farm-families engage in subsistence farming in which family needs determine the scale of production, wherein small plots of land are cultivated by individual owners or sub-owners

to be re-oriented as well as get their knowledge updated from time to time on advances in using age-old methods without

much control on the yields (Nigeria National Report, 2006).

For enough food production and access to enhance food security in the society, farmers' need agricultural production. Their skills should also be built to adopt and utilize knowledge of proven technologies to improve their productivity. Thus, the need to build the capacity of the grass roots who are involved in agriculture. Capacity is the ability of individuals, institutions and societies to perform functions, solve problems, set and achieve targeted goals in a sustainable manner. Issa et. al, (2013) opined that the achievement of set goals by an individual, group of people, organization/institution and societies is made possible through capacity building.

Capacity building could be described as an act of inculcating skills that are of economic importance into people with a view to increasing their knowledge and also improve their socio-economic status. Building farmers' skill through various workshop/ trainings could be achieved if extension services are involved since they are closer to the grassroots. Capacity building is also the process whereby relevant stakeholders and organizations unleach, strengthen, create, adapt and maintain capacity over time, usually with the objective of assuring sustainable agricultural growth and improving the lives of the stakeholders. This can be made possible by improving farmers' livelihood activities. Livelihood refers to means by which people survive and the more fortunate thrive. On the other hand, livelihoods are viewed as means of living (Ellis 1998). According to Chambers and Conway (1992), livelihood comprises the capabilities, assets and activities required for a means of living, while Ellis (2000) described livelihood to comprise the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household. Extension services aims at increasing livelihood outputs of the agrarian communities and adopts the use of multidisciplinary approach in rural development and transfer of proven agricultural technology that could enhance/improve farmers' socio-economic characteristics. Capacity building training /workshop in agricultural and non-agricultural enterprises is one of the strategies utilized in achieving this.

Assessing effects of capacity building training on farmers' socio-economic characteristics and livelihood activities is necessary premised on the fact that crop production is no longer the main source of income of rural households despite the fact that Agriculture remains the backbone of most rural economies (Haggblade, 2005). Therefore in order to examine the effectiveness of capacity building training on rural farmers, the study assessed the influence of various capacity building programmes organized for farmers by AMREC through these objectives:

(i) describe the farmers socio-economic characteristics in the study area.

(ii) identify the various capacity building training organized by extension services

(iii) determine farmers' perception on the capacity building training.

Hypothesis Testing: The hypothesis is stated and tested in its null form

Ho_1: There is no significant relationship between capacity building training benefitted

from and selected socio-economic characteristics of farmers.

METHODOLOGY

Study area

The study was carried out in Odeda Local Government Area of Ogun State which is about 20 Kilometres from the state capital. It is located in the rain forest zone with landmass of 1263.45km^2. Its temperature is between 23^0 C -30^{0}C and relative humidity of 80-90%. It is bounded in the south by Abeokuta South and Abeokuta north in the west, Obafemi-Owode in the east and Oyo state in the north. Its population is 109, 449 inhabitants (NPC, 2006). It is predominantly occupied by the Egbas who have homestead and farmlands in the area, other inhabitants include the Igedes and the Ijeshas. Most people residing in the rural areas of the Local Government are farmers; crops planted include vegetables, pepper, banana, cassava, yam and cash crops such as citrus, cashew, oil palm and cocoa. Areas of livestock production include; poultry, goat, sheep, pig and cattle. The study area is one of the 20 Local Governments Areas in Ogun State. All the local government areas are divided into four agricultural zones (Abeokuta, Ikenne, Ijebu–Ode and Ilaro) by the Ogun State Agricultural Development Programme (OGADEP)

Population of the study

The populations of the study are farmers who have benefited from AMREC organized capacity building training.

Sampling technique and sample size

Purposive sampling technique was used to select 14 communities that had benefitted from AMREC capacity building in Odeda Local Government Area. Eight (8) farmers were purposively selected from farmers that have benefitted from the training in each community. Therefore, a total of one hundred and twelve (112) beneficiaries were interviewed.

Method of data collection

The data for the study was generated from primary data. The data were obtained from beneficiaries with the aid of interview guide. Information was gathered on socioeconomic characteristics, types of capacity building benefitted from and farmers' perception on the benefit of the capacity building benefitted from.

Measurement of variables

Variables such as age, household size, farm size, annual income, farming experience and the yield before and after the capacity building training were measured at interval level while sex, marital status, educational level, livelihood activities (agricultural and non-agricultural based) and various livelihoods typology were measured at nominal level. Other variables such as types of capacity building benefitted from (crop production, agro-processing, livestock production and non-farm economy) were also measured at nominal level. Farmers' perception on the capacity building was measured using Likert scale of measurement "Strongly Agree, Agree, Strongly Disagree and Disagree".

Data analysis

Data collected were analyzed using descriptive statistics such as frequency counts, percentages and 5 points Likert scale of measurement. Hypothesis was tested using Chi-Square and Pearson Product Moment Correlation (PPMC) analysis.

RESULTS AND DISCUSSION

Socio-economic characteristics of farmers

The result in Table 1 shows that the mean age of farmers was 39years. The implication is that the larger percentages of the benefi-

ciaries are in their productive age. A little above half (54.6%) of respondents are female farmers indicating that women are actively involved in income generating activities in order to cater for the family. Literacy level is very low among the farmers, as more than half (62.5%) had no formal education. This affirms Baseline study UNESCO (2001), which indicated that many farmers in most rural communities possessed no basic literacy skill. It is said that often in most cases, the literacy level of the rural people affect the ability to make more informed decisions for their lives and for their communities, as well as the capability to be actively involved in identified indicators of sustainable development (Lind, 2008).

The study reveals that the mean of the household size is 6 persons. The issue of family size generally is important in every aspect of agricultural production as it enhances the labour force as well as per capital output. Rural farmers may not be able to employ farm labour because of the inadequate finances and charges from the laborers, thus most usually make use of the family labour as alternative means. This is ascertained by Olawepo (2010) that in many farming production, family labour is being used. The mean farm size is 2.3hectares, despite that fact that majority have been involved in farming for 8years. This shows that farming is still on small scale production despite the availability of land in the rural areas. This finding corroborates that of CTA (2000) which stated that the large fraction of the agricultural output is in the hands of smallholder farmers whose average holding is about 1.0-3.0 hectares. Also, Lind (1996) reported that majority of the rural poor are small-scale farmers. The small scale farming can be associated with the problem of inadequate funds.

The study further reveals that farmers average yield before farmers involvement in various capacity building training was increase from 91.7kg to 184.6kg. This shows that the training organized by the extension outfit had positive impact on farmers yield and this actually influences their annual income. Increase in rural income is a function of types of livelihood engaged in, as it is reflected in the study (Table1) where the average annual income of farmers rose from N3,571.00k to N15,732.00k after participation in the organized training programme (agricultural and non-agricultural). The result corroborates that of Barrett et.al (2001) which states that non-farm activity is typically correlated with income and wealth in rural Africa. This statement is buttressed by Lanjouw (2001) who stated that livelihood diversification help stabilizes income and poverty alleviation. Furthermore, Mwabu et.al (2001) opined that livelihood that is derived from one form or another of non-farm activities increases rural profitability and that the range of these activities improves living condition in rural areas.

Capacity building training on livelihoods organized by extension services and benefitted from by rural farmers

Table 2 shows various capacity building trainings that the rural farmers participated in. Results indicated that 62.5% and 37.5% of farmers benefitted from trainings on crop production and livestock production respectively. Training benefitted from includes production and agro-processing of dry season vegetable (100%), *moringa olifera (*71.4%), and hygienically produced cassava flakes - *garri (54.5%),* soybean (*soycheese, soymilk and soy puff-puff*) as food fortification (35.7%). Also, 35.7% of the farmers concurrently benefitted from trainings on animal healthcare care and prevention of *zoonotic* diseases as well as management practices in small ruminant

production. The non-farm activities trained on are; hat making (54%) bead crafting (54%) and soap making (100%). Therefore, as a result of diversification, there has been increase in the rural income.

Table 1: Distribution of farmers according to their socio-economic characteristics N=112

Variables	Frequency	Percentage	Mean
Sex			
Male	51	45.5	
Female	61	54.6	
Age (years)			
20-30	05	4.5	
31-40	17	15.2	39
41-50	90	80.4	
Marital Status			
Married	106	94.6	
Divorced	6	5.4	
Educational Level			
No formal Education	70	62.5	
Incomplete Primary Education	42	37.5	
Household Size			
1-3	18	16.1	
4-6	40	35.7	6
7-9	54	48.2	
Farm size			
1-3ha	90	80.4	
>3ha	22	19.6	2.3
Farming Experience (years)			
1-5	15	13.4	
6-10	55	49.1	
11-15	42	37.5	8
Livelihood Activities			
Agricultural based*	112	100.0	
Non-Agricultural based*	112	100.0	
Agricultural based			
Crop production	112	100.0	
Crop and livestock production*	40	35.7	
Average Farm Yield (kg) before CBT			
55-80	37	33.0	
85-110	50	44.6	91.7
111-500	25	22.3	
Average Farm Yield (kg) after CBT			
55-80	-	-	
85-110	40	35.7	184.6
111-500	72	64.2	
Income Level (Average) / annum before CBT			
N1000- N 10000	82	73.2	
N 11000- N 20000	30	26.8	3,571
Income Level (Average) / annum after CBT			
N 1000- N 10000	12	10.7	
N 11000- N 20000	100	89.3	15,732

Table 2: Capacity Building Training Organized by Extension Services N=112

Variables	Frequency	Percentage
Capacity Building Training		
Agricultural and Non-Agricultural based		
Agricultural		
Crop production	70	62.5
Crop and Livestock production* (preseason integrated training)	42	37.5
Area of Training (Crop Production and Agro-processing)		
(i)Hygienically produced cassava flakes (garri)	61	54.5
(ii)Production and Processing of nutritive Moringa Olifera	80	71.4
(iii)Dry season vegetable production*	112	100.0
(iv)Soybean production and processing as food fortification (its nutritive value)*	40	35.7
(v)Pre-season training of crops (cassava, maize, soybean)	112	100.0
(vi)Livestock Production		
(vii)Animal health care and prevention of zoonotic diseases*	40	35.7
(viii)Management practices in small ruminant production*	40	35.7
Non-Agricultural based (Non-farm economy)		
(i)Hat making*	61	54.5
(ii) Bead crafting*	61	54.5
(ii)Soap Making (liquid soap and bar soap)*	112	100.0

Field Survey 2013
***Multiple Responses**

Farmers' perception on the benefits of capacity building training on their livelihoods

The mean score of all the farmers' response about their perception on influence of the capacity building training on their livelihoods is 3.66. Any individual having statement with mean score less than 3.66 have negative perception on the benefits of the programme on their livelihoods while individual having statement with mean score greater than 3.66 have positive perception towards the programme. Results (Table 3), reveals that 80.4% of farmers strongly agreed that Capacity Building Training is a developmental issue that was targeted in building human resources while 95.5% also stated that the training has assisted in reducing the problem of rural-urban drift and poverty since other livelihoods that requires less energy were engaged in especially during off-season period. 89.2% (Strongly Agreed and Agreed) said that the workshop is a means of improving farmers' income through the introduction of highly improved hybrids of livestock and crops. 89.3% agreed that farmers were exposed to various farming practices and techniques that could reduce drudgery thereby encouraging livelihood sustenance. 71.4% perceived that the lost glory of agri-

culture has gradually been revived through full participation and commitment of all stakeholders. Furthermore, 59.8% stated that their participation in the workshop was an exposure to more various rural non-agricultural livelihoods and 62.5% (Strongly Agreed and Agreed) mentioned that the improved farming techniques has led to reduction in rural-urban youths drift.

Table 3: Farmers' perception on the benefit of capacity building training N= 112

Statements	SA		A		SD		D		
	Freq	%	Freq	%	Freq	%	Freq	%	Mean
(i)The Capacity Building Training is a developmental issue that was targeted in building human resources	90	80.4	10	8.9	7	6.3	5	4.5	4.66
(ii)It has assisted in reducing the problem of rural-urban drift and poverty since other livelihoods that requires less energy could be engaged in especially during off-season period.	107	95.5	1	0.9	1	0.9	3	2.7	4.89
(iii)The workshop served as a means of improving farmers' income through the introduction of highly improved hybrids of livestock and crops	50	44.6	50	44.6	10	8.9	2	1.8	4.31
(iv)The training expose farmers to various farming practices and techniques that could reduce drudgery thereby encourages livelihood sustenance	100	89.3	7	6.3	2	1.8	3	2.7	4.82
(v)The workshop was not explicit enough and only farmers' with formal education were able to understand and benefit from the training	4	3.6	4	3.6	13	11.6	91	81.3	2.29
(vi)There has not been justification for attending the various workshop organized because there has not been any increase both in the farm yield and income	3	2.7	28	25.0	11	9.8	70	62.5	2.29
(vii) One of the workshop benefit is that the lost glory of agriculture has been revived through full participation and commitment of all stakeholders	80	71.4	26	23.2	2	1.8	4	3.6	4.63
(viii)There has not been increase in the family's income even after attending the workshop and practicing the improved farming techniques	4	3.6	13	11.6	4	3.6	91	81.3	2.38
(ix)More enlightenment on rural livelihoods diversification especially on food fortification and other non-farm economy has led to reduction in income generation	2	1.8	3	2.7	17	15.2	90	80.4	2.26
(x) Participation in the capacity building/ workshop was an exposure to more various rural non-agricultural livelihoods	67	59.8	40	35.7	4	3.6	1	0.9	4.54
(xi) The youths are also encouraged with the improved farming techniques, therefore there has been reduction in rural-urban youths drift	40	35.7	30	26.8	20	17.9	22	19.6	3.83
(xii) Regular CBT in form of Training of Trainers (TOT) has not lead to multiplier effect among farmers	13	11.6	15	13.4	4	3.6	80	71.4	2.65

Test of relationship between various capacity building training and selected socio-economic characteristics of farmers

Chi square analysis in table 4 shows a significant relationship between farmers' sex, (χ^2 =10.63, df = 1, P > 0.05), purpose of attending the capacity building training (χ^2 =11.67, df = 4, P > 0.05). The result implies that the purpose of attending the training was achieved since the training serve as means of other source of income generating activities as farmers diversified more into non-agricultural activities especially during off-season.

In table 5 the Pearson Product Moment Correlation (PPMC) shows a significant relationship between farm size (r = 0.397, p = 0.001), farm yield (r = 0.555, p = 0.004) and farmers income
(r = 0.808, p = 0.002). The result implies that the purpose of attending the training was achieved since there were increase in the farm size, farm yield and the income after the training.

Table 4: Chi-square analysis showing test of relationship between variables

Variables	c2	Df	P-value	Decision
Sex	10.63	1	0.001	S
Purpose of attending the CBT	11.67	4	0.020	S

Field survey 2013

Table 5: Pearson Product Moment Correlation (PPMC) analysis showing test of relationship between variables

Variables	r	p-value	Decision
Household size	0.752	0.034	NS
Farm size	0.397	0.001	S
Average Farm yield (Kg)	0.555	0.004	S
Farming Experience	0.657	0.097	NS
Average annual income(N)	0.808	0.002	S

Field survey 2013

CONCLUSION

The study found that the capacity building have influence on the farmers' income and has also equip them more with entrepreneurial skills which could serve as additional source of income to the family. Also, the various hybrid stems and seeds obtained during the training could also improve the farmers yield. The training on hybrid local chicken that produces more eggs than the non-hybrid chicks/fowls will positively affect farmers' income and also serve as additional protein for the children. The positive result of the training on farmers that benefit-

ted from the workshop would serve as an indicator for other farmers who are yet to benefit from the workshop.

RECOMMENDATIONS

Based on the conclusion of the study, it is recommended that more capacity building trainings focusing on the immediate needs of the farmers especially on crops and animals should be organized. Also, as means of adaptation/coping strategies to climate change, women should be trained more on skill acquisition in order to better equip them with more funds since women are care givers. In all, more farmers, both male and females should be trained in various agricultural and non-agricultural livelihoods if rural poverty is to be reduced to the minimal

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