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Family Farming Practices in Taraba State

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Abstract

The study examined family farming practices in Taraba State. Structured interview schedule was used to elicit information from farmers. A total of 90 respondents were selected using stratified random sampling technique. Data collected were analysed using descriptive statistics. Findings from the study show that weeding ($\bar{x}$ =2.67); planting of crops ($\bar{x}$ =3.11), application of fertilizer ($\bar{x}$ =3.02) and herbicides ($\bar{x}$ =2.83) were the farming activities practiced by family farmers. Social cohesion- unity and oneness in task execution ($\bar{x}$ =3.00); safe-guard for food security ($\bar{x}$ =3.02); traditional practices in agriculture ($\bar{x}$ =3.00) and labour pools to reduce cost of labour ($\bar{x}$ =2.98) were some of the characteristics of family farming. Poor soil fertility ($\bar{x}$ =2.27), lack of finance ($\bar{x}$ =2.29), land tenure problems ($\bar{x}$ =2.12) and poor access road to farm land ($\bar{x}$ =2.32) were the challenges to family farming activities in the study area. It was concluded that family farming seems to have been in existence contributing to change in taste, demand for food varieties, food security and human nutrition.

Keywords: Family farming, farming activities, constraints to family farming

Introduction

In most countries family farming is the predominant form of agriculture in food production sector (FAO, 2014). This system of farming seems to be of communal settlement in which a household related by blood or by association settle as farming community. They include the father, mother, children, uncle and relatives carrying out farming as their sole occupation in farms away from home. It was a means of maintaining family patrimony, cultural heritage, and communities. Therefore,

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motivations of family farmers go far beyond profit maximization to encompass social, cultural and ecological aspects. Ozowa (1995) stated that family farming is in both developed and developing countries economy. This is so because in a developed economy, one or two members of the farm family run the farm with mechanized method of farming to save human labour. Whereas in a developing economy, it comprises mainly of human labour, where most family members are directly involved and it is mostly carried out through subsistence farming.

Ozowa (1995) mentioned that though family farming might be labour intensive; not easily operational as mechanized farming, it is linked and co-evolves with economic functions, environmental and cultural values in performing its functions. Environmental functions can include soil enrichment, carbon sequestration and pest control. Reproductive functions could be caring for children, feeding and good nutrition, energy supply and water, education, health, soil security, insurance and risk management. Cultural functions include transmission of identity, religious values of resources, knowledge and technologies (Dugbazah, 2009). The contributions of family farmers to agricultural sustainability and development are essential to be acknowledged. Though Nigeria is perceived as an agrarian country, it mainly consists of subsistence farmers who use simple tools for farming (Emodi and Madukwe, 2010; Ani, 2013). The farmers traditionally produce cassava, millet, yam, cocoyam and livestock. These products are of energy-giving caloric foods which are not nutritionally balanced. This has resulted to malnutrition, marasmus kwashiorkor, ill health and fast aging among the farming community (Dugbazah, 2009).

Small holder farmers constitute a significant proportion of all farm holdings and play a central role in agricultural production, process, and implementation; about 95% of family farmers are rural dwellers (Albert and Igbokwe, 2014) while 5% often attend to other family needs (Attah, 2012). The implication is the high rate of poverty, starvation and food insecurity in the country especially among the rural farmers. Among the family farmer's new knowledge in farm practice were shared through apprenticeship or learning by imitation (Attah, 2012). Through family farms communal life, they introduced to their farms improved seeds and animals from other

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communities which they must have tried in their farms without the employment of formal extension agents (Swanson and Davis, 2014). The farmers have different talents and personality which they apply in solving arising problems, task and duties in the farm. Aregheore (2009) revealed that simple techniques of cultivation and production that is about two- third of Nigeria's agricultural production is relatively small, and of decreasing importance. Among family farmers' households there are values and norms, through communal live. Their offspring's learn by imitation through apprenticeship system. It has helped to solidify their family bonds and enable the children understand the meaning of respect for elders which is synonymous with African tradition (Agusiobo and Olaitan, 1982 in Aliber 2005). These farmers are faced with numerous challenges such as climate variability, lack of land tenure security for land and water, inputs, technology, training, research and advisory services education and limited access to markets (IFAD, 2014).

Insufficient food and poverty could be attributed to poor agricultural innovation dissemination which has far-reaching implications not only for the farm households but to national economy; it seem to have created poor food availability, accessibility and distribution problems at the farm families and national levels (Nyerhovwo and Douglason,2010). The bane of food security is that farming in Nigeria is predominately among small holders, who are not mechanized with farmers subjected to low level of agricultural production with hard labour which perpetuates poverty and hinders development (FAO, 2014). There is need for effective policies that will encourage increase access in supply of farm inputs such as pesticides, seeds, fertilizers, marketing of agricultural produce. Family farms seem to have been in existence contributing to change in taste, demand for food varieties, food security and human nutrition since the time of cave men. There is need for new ideas and improved technology for family farming to thrive for sustainable livelihood which can only be achieved on viable family farming (FAO, 2014; International Year of Family Farming, 2014). From this backdrop the study examined the extent family farming has thrived in farm activities among household farmers in Taraba State.

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Objectives of the study

The main objective of the study was to assess family farming activities among farmers for increased agricultural productivity in Taraba State. The specific objectives were to:

i. describe the socio-economic characteristics of the respondents;
ii. identify family farming activities practiced by farmers;
iii. examine effects of family farming activities on agricultural development; and
iv. ascertain challenges to family farming practices in the study area.

Methodology

Taraba State consist of sixteen Local Government Areas with Ardo Kola, Lau, Jalingo, Karim Lamido, Yorro, Zing in the North, Gassol, Kurmi, Gashaka, Bali, Sardauna in the Central and Donga, Wukari, Ibi, Takum, Ussa in the south. The state is bounded in the west by Plateau and Benue states and on the east by the Cameroon. Taraba state lies largely within the tropical zone with an estimated land area of about 54,428 sq. km, the state lies roughly between latitudes 6Â°25'N and 9Â°30'N and between longitudes 9Â°30'E and 11Â°45'E. It is bordered on the west by Gombe and Plateau States and by Adamawa State to the northeast. It also shares its south western boundary with Benue State and on the east is Republic of Cameroun. The major occupation of the people of Taraba State is agriculture. They produce cash crops such as coffee, tea, groundnuts and cotton (Umar, *et al,* 2014). Other crops produced are maize, rice, sorghum, millet cassava and yam in commercial quantity. Poultry, rabbit breeding, pig farming, cattle, sheep and goats are reared in large numbers. Other occupational activities such as pottery, cloth-weaving, dyeing, mat-making, carving, embroidery and blacksmithing are also carried out in various parts of the State (Online Nigeria, Community Portal of Nigeria, 2003).

The study was undertaken in three Local Government Areas of (Ardo Kola –North, Bali-Central, and Ussa-South) of Taraba State. The three Local Government Areas

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were purposively selected based on their history of communal system of farming as well as cultivation of vegetable in the backyard gardening system. Secondly, two communities were randomly selected giving a total of six communities. Stratified random sampling was used to select fifteen families who are into family farming from the selected communities. A total of 90 respondents were selected using stratified random sampling technique, of which 30 respondents each were selected from each of the selected Local Government Area (LGA). For collecting relevant data from the respondents, questionnaire and personal interview schedule were used.

Results and Discussion

Respondents' socio-economic characteristics

Entries in Table 1 shows that the majority (68.3%) of the respondents were males, single (54.9%), had tertiary education (68.3%) and had farming experience of 15 years and above (34.1%). This implies that family farming is an ancient and common method of achieving food security, employment, shelter, income, and economic growth in the study area. It also implies that males and those who are not married dominate family farming in the study area.

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Table 1: Socio-economic characteristics of family farmers

Variables	Percent	Mean ($\bar{x}$)
Gender		
Male	68.3	
Female	31.7	
Marital Status		
Single	54.9	
Widowed	7.3	
Married	37.8	
Educational qualification		
No formal education	7.3	
Primary	3.7	
Secondary uncompleted	1.2	
Secondary completed	18.3	
Vocational technical school	1.2	
Tertiary education	68.3	
Farming experience		
0-5years	22.0	
6-10years	23.2	
11-15years	20.7	15 years
15yrs and above	34.1	
Farm Size (hectares)		
0.5-1Ha	24.4	
2-3Ha	37.8	4Ha
4-5Ha	17.1	
5 and above 17	20.7	
Your entire household farm on the same farm?		
YES	58.5	
NO	41.5	
Do you live in the farm house?		
YES	41.5	
NO	58.5	
Are you happy living in farm house?		
YES	42.7	
NO	57.3	
Hours put per day in the farm		
1	41.5	
2	13.4	
3	9.8	
4	9.8	
5	9.8	
6	3.7	
7	8.5	
8	2.4	
12	1.2	
Farm labour done by only farm household?		
YES	53.7	
NO	46.3	

Source: Field work, 2015

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Relationship between farmers' personal characteristics and family farming

Entries in Table 2 established that among the three models, linear and semi-log showed R^2 of 0.076 with education of the respondents significant at 5% level, indicating that education helps in increasing family farming activities among farmers in the study area. This is true because they will be better exposed to innovations brought by agricultural extension agents and will easily adopt new technologies. Linear, semi-log and double log regression results of gender, marital status, farming experience and farm size show that they are statistically insignificant in promoting family farming in the study area.

Table 2: Relationship between farmers' personal characteristics and family farming

	Linear Model			**Semi-Log Model**			**Double-Log Model**		
Variables	Coef	Std error	t - value	coef	Std error	t-value	Coef	Std error	t-value
Gender	0.36	0.112	0.318	0.014	0.046	0.318	0.032	0.067	0.477
Marital status	-0.48	0.049	-0.973	-0.020	0.020	-0.973	-0.044	0.043	-1.025
Education	-0.076	-2.023	-0.031**	0.31	0.015	-2.023**	0.047	0.047	-1.864
Farming Experience	0.025	0.058	-0.420	-0.010	0.024	-0.420	0.001	0.056	0.017
Farm size	0.036	0.060	0.594	0.014	0.024	0.394	0.017	0.055	0.301
R^2	0.076			0.076			0.066		

Source: Field Survey, 2015. **** P ≤5%**

Family farming activities practiced by farmers

The results in Table 3 show the family farming activities practiced in the study area. Using a mean of 2.50 as the decision rule, the result established that family farmers were engaged in weeding ($\bar{x}$ =2.67), application of herbicides ($\bar{x}$ =2.83), planting of crops ($\bar{x}$ =3.11), food processing ($\bar{x}$ =2.63), creating ridges ($\bar{x}$ =2.74), engaged in labour ($\bar{x}$ =2.69) and harvesting ($\bar{x}$ =3.40). They were also involved in activities such as family heads making most managerial decisions ($\bar{x}$ =3.06) and application of fertilizer ($\bar{x}$ =3.02). The results indicate that family farming activities practiced in the study area were planting of crops, harvesting, application of fertilizers and making of

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managerial decisions, food processing, creation of ridges, and application of herbicides, among others.

Table 3: Percentage distribution of family farming activities practiced by farmers

S/NO	Family farming activities	Mean ($\bar{x}$)
1	Weeding	2.67*
2	Mulching	2.39
3	Stalking	2.44
4	Application of herbicides	2.83
5	The Head makes most of managerial decisions	3.06
6	Planting of crops	3.11
7	Application of fertilizer	3.02
8	Family members provide capital to the business	2.49
9	Engage in labour	2.69
10	Farm involved in land integration	2.72
11	Harvesting	3.40
12	Food processing	2.63
13	Creation of ridges	2.74

- **mean ≥2.5= Accept**
- **Source: Field work, 2015**

Family farming activities on agricultural development

Table 4 reveals that the respondents were of the view that family farming reduces poverty ($\bar{x}$ =3.19), provide household members with food and shelter ($\bar{x}$ =3.17), families could sell whatever is needed to gain cash for satisfying the range of other household needs of the family ($\bar{x}$ =3.16), indigenous agricultural knowledge was transmitted orally and through daily practices which aided agricultural development ($\bar{x}$ =3.07), it is seen as a safe-guard for food security ($\bar{x}$ =3.02), it is useful for good traditional practices in agriculture ($\bar{x}$ =3.00), it provides source of livelihood or employment for family members ($\bar{x}$ =3.01) and there is unity and oneness that helps in executing a task ($\bar{x}$ =3.00). Others include: It pools labour in order to reduce cost of labour ($\bar{x}$ =2.98), It leads to social cohesion within communities ($\bar{x}$ =2.98), It is a tie to society between agricultural development among rural communities ($\bar{x}$ =2.96) and family farm is the unit of broader connection with the community and territory ($\bar{x}$ =2.90). This is in agreement with the findings of (FAO, 2014), which stated that family farming provides food security and nutrition.

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Table 4: Mean distribution of the effects of family farming activities on agricultural development

S/NO	Effects of family farming	Mean ($\bar{x}$)
1	Supports in times of illness and old age	2.88
2	Helps each other with cost of marriage	2.86
3	Family farm is the unit of broader connection with the community and territory	2.90
4	It is a tie to society between agricultural development among rural communities	2.96
5	Family farming is first to provide household members with food and shelter	3.16
6	Sells whatever is needed to gain cash for satisfying the range of other household needs	3.17
7	It is essential for understanding and supporting agric. Development	3.00
8	Indigenous agric. knowledge transmitted orally and through daily practices aid in agric. Development	3.07
9	It is seen as a safe-guard for food security	3.02
10	It is useful for good traditional practices in agriculture	3.00
11	It provides source of livelihood/employment for family members	3.01
12	There is unity and oneness that helps in executing a task	3.00
13	It pools labour in order to reduce cost of labour	2.98
14	It leads to social cohesion within communities	2.98
15	It reduces poverty in the family	3.19

- **mean ≥2.5= Accept**
- **Source: Field Survey, 2015**

Constraints to family farming activities

The respondents were of the view (Table 5) that poor soil fertility ($\bar{x}$ =2.27), lack of finance ($\bar{x}$ =2.29), diseases/infection of crops ($\bar{x}$ =2.09), land acquisition problems ($\bar{x}$ =2.22), high cost of agro-chemicals ($\bar{x}$ =2.22), competition of weeds ($\bar{x}$ =2.11) and land tenure problems ($\bar{x}$ =2.12). Others are poor access road to farmland ($\bar{x}$ =2.32), poor extension contact ($\bar{x}$ =2.26), and bad communication network ($\bar{x}$ =2.06), lack of organic fertilize ($\bar{x}$ =2.11), and High cost of transporting agric. produce from farm to market ($\bar{x}$ =2.22), lack of storage ($\bar{x}$ =2.27), and High cost of hired labour ($\bar{x}$ = 2.16). This result is in agreement with that of Ozowa (2015) which asserted that poor access road is a problem confronting small-scale farmers. Abajigi (2014) listed obstacles to family farming to include lack of finance, lack of access to extension services, socio-cultural conditions, among others.

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Table 5: Constraints to family farming activities

S/NO	Constraints	Mean ($\bar{x}$)
1	Poor soil fertility	2.27
2	Lack of finance	2.29
3	Diseases/Infection	2.09
4	Competition of weeds	2.11
5	Land tenure problems	2.12
6	Land acquisition problem	2.22
7	Poor access road to farm land	2.32
8	High cost of agro-chemicals	2.22
9	Poor extension contact	2.26
10	Bad communication network	2.06.
11	Lack of inorganic fertilizer	2.11
12	High cost of transporting agricultural produce from farm to market	2.22
13	Lack of storage	2.27
14	Processing facilities	2.12
15	High cost of hired labour	2.16
16	Lack of credit for purchase of equipment and input	2.09
17	The traditional rural family farm household has changed because of migration/cultural transformation	2.24
18	Scarcity of farm lands	2.02
19	Lack of access to modern farm technology	2.00
20	Lack of access to improved planting materials	2.18
21	The family members bear the risk alone	2.17
22	Once the head/leader is dead, it is difficult to continue	2.11

- **mean ≥2.5= Constraint**
- **Source: Field Survey, 2015**

Conclusion and Recommendations

Different types of family farming activities are carried out by the farmers. These include: planting of crops, application of fertilizer and herbicides and weeding. This has led to increased social cohesion within families and communities through unity and oneness in executing tasks (farming). It helps to pool labour to reduce cost of labour, ensures security and it is useful for good traditional practices in agriculture in the study area. However, poor soil fertility, lack of finance, land tenure problems and

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poor access road to farm land have slowed the practice of family farming activities in the study area.

The study recommends that credit facilities and fertilizers should be made available to these family farmers directly by stakeholders (Local, State and Federal government) to improve their soil and to farm more for increased agricultural productivity. Since family farming leads to increased social cohesion within families and reduces communal crisis, it should be encouraged as it will reduce communal crisis which has led to increased loss of lives in the nation.

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