

Organic Farming Practices among Crop Farmers in Tai Local Government Area of Rivers State

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ABSTRACT

The study analyzed organic farming practices among crop farmers in Tai local government area. The study determined the level of awareness of organic farming practices; assessed farmers perceived benefits of organic farming practices; and determined strategies for the improvement of organic farming practices. Data were collected with structured questionnaire from 120 crop farmers, and were analyzed using simple percentage and tables. The level of awareness of organic farming was generally high. Among crop farmers, farmyard manure, intercropping, bush burning, and mulching were practiced. They were constrained by non-availability of organic farming policy, poor governmental support, political and social factors. Based on the findings, the following recommendations among others were made. Organic farming practices should be included in the curriculum of agricultural science undergraduates programme and there should be the organization of capacity building programmes for extension agents to develop the knowledge, skills and attitude needed for training farmers on organic farming practices.

Keywords: Awareness, Practice and Organic farming

INTRODUCTION

The main stay of Nigeria economy is agriculture. It is the major means of livelihood to about 70% of the populace who reside in the rural areas, per-urban and urban areas (World Bank, 2001). Agriculture accounts for over 38 percent of the non-oil foreign exchange and employs about 70 percent of the active labour force of the population (Bureau of Public Enterprise (BPE) 2004). It is expected that with this high level of involvement in agriculture, food production should meet the need of the populace but the reverse is the case. In order to increase food production to meet the need of the world ever growing population, the use of agro-chemicals was adopted. Despite the apparent boost of crop and animal production by the use of synthetic fertilizers and other agro — chemicals, a number of side effects have been recorded in recent times. According to Smil (2001) the inorganic fertilizers used to increase crop yield are leached and washed away by erosion to rivers causing water pollution which is dangerous to aquatic life and human health. Most of the synthetic fertilizers and other agro-

chemicals that are used are manufactured using resources such as fossil fuel which are not renewable and using such resources can cause pollution and contribute to environmental degradation (Oyesola & Obabire, 2011).

Organic farming represents a deliberate attempt to make the best use of local natural resources and is an environmental friendly system of farming. It relies much on ecosystem management which excludes external input, especially the synthetic ones. Anderson, Jolly & Green (2005) stated that organic farming is a production system that excludes the use of synthetically manufactured fertilizers, pesticides, growth regulators and livestock feed additives. The system relies on crop rotation, crop residues, animal manures, legumes, green manures, off-farm organic wastes, mechanical cultivation and biological pest control to maintain soil. Organic farming technology is generally regarded as the solution to environmental problems that are related to agriculture as well as food safety (Agbam, 2002). Also, Conor (2004) pointed out that organic farming was developed as a response to

what was perceived to be polluting food supply by modern farming methods and the ensuing degradation of the environment with chemical and other by-products of the industry. Two farming systems (organic and conventional) studied at farm level in Central Italy emphasized differences on soil quality (Adebayo & Oladele, 2014).

The work revealed that organic management affects soil microbiological and chemical properties by increasing soil nutrient availability, microbial biomass and microbial activity, which represent a set of sensitive indicators of soil quality (Marinari, et al., 2006). Rigby & Caceres (2001) reported that organic agriculture tends to conserve soil fertility and system stability better than conventional farming systems.

The Food and Agriculture Organization (2008) clearly states that organic agriculture promotes ecological resilience, improves bio-diversity, healthy management of farm and surrounding environment and building community knowledge and strength. The benefit of organic farming in fauna and flora activities is well documented. Stoize (2000) reported that organic farming clearly performs better than conventional farming in respect to floral and fauna diversity.

Organic farming conserves soil fertility and system stability (Rigby & Caceres, 200 United Nations regards organic agriculture as an effective strategy for mitigating climate change and building robust soils that are better adapted to extreme weather conditions associated with climate changes (International Federation of Organic Agriculture Movement 2009; Pretty, 1999).

The past decades have been characterized by public concern towards nutrition, health and food safety issues (Crutchfield et al., 2000). As a result, consumers perceive relatively high risks associated with the consumption of conventionally grown produce compared with other public health hazards (Williams & Hammitt, 2000).

Fruits and vegetables produced organically as observed by Mitchell et al., (2007) have increased levels of flavonoids which are reported to protect against cardiovascular disease (Hertog & Holiman, 1996) and to a lesser extent against cancer and other age related diseases such as dementia (Commenges et al., 2000).

Statement of Problem

Over the past 30 years, public interest in organic food and organic farming has been increasing in the United States. This is evident by the increases observed in consumer demand for organically produced foods and the number of public funded research and policy projects pertaining to organic food production (Whitney, 2009). Consumers perceive relatively high risks associated with the consumption of conventionally grown produce compared with other public health hazards (Williams & Hammitt, 2000; 2001). The case is not different in Africa and developing nations like Nigeria (IFOAM, 2007).

Before now, the challenge of food insecurity and increasing population called for measures to increase food production by all means thus farmers were encouraged to embrace conventional farming practices. The main focus in the bid to tackle hunger has been on how to produce enough food on a global level for a growing population with the use of chemical inputs and genetically modified and high yielding varieties of crops and animals.

The researcher on a visit to Songhai farm at Bunu Tai LGA of rivers state observed that organic farming is fully practiced, using an integrated system. This aroused his curiosity. Hence the decision to carry out a study with the aim of analysis of the level of awareness and practice of organic farming in Tai LGA of rivers state.

STUDY AREA

The study area for this research work is Tai local government Area in Rivers state. Tai is one of the 23 LGA in rivers state it was created in 1996 it covers an Area of 159km² with a population of 117,797 according to the 2006 national population census, its local government headquarter is at Saakpenwa. Most of the people are Ogoni, speaking the tee and 13aan languages. It comprises of 22 villages which are namely: Bunu, Ban-Ogoi, Bara-Ale, Bara-Alue, Barayira, Borobara, Botem, Deeyor Kira, Gbam, Gbene—UE, Horo, Kebera Kira, Korokoro, Koroma, Kpite, Nonwa Kebara, Nonwa Uedume, Nor Kpo, Sime, Ueke, Gb and kporghor. Tai LGA has two broad sections: the Tua Tua kingdom and the Barasi Nonwa kingdom, both under the overall tai kingdom headed by the Gbene Mene Tab. The primary occupations are farming and fishing to a lesser degree. There are many oil wells in the LGA

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which is laced with pipe line, most of the oil installation being operated by shell Nigeria. Tai has two agricultural establishment namely: Songhai farm situated at Bunu Tai, while the banana plantation at Korokoro axis under the former governor Rotimi Chibike Ameachi administration.

POPULATION OF STUDY

The population of this study were constitute of all crops farmers in Tai LGA of Rivers State, as at the time of this study 2021, according to the geographical map of Tai LGA which has a total no of 22 villages and sub divided into two part: namely Tua-Tua area (Tai 1) and Nonwa Area (Tai 2),

SAMPLE AND SAMPLING PROCEDURE

Out of three prominent agricultural enterprises, such as fishery, livestock and crop. (120) Crop farming were purposively sampled for the study, this is based on their dominance in agricultural

RESULT, ANALYSIS AND DISCUSSION

Table1. Sex

Sex	Frequency	Percentage
Male	40	33.4
Female	80	66.6
Total	120	100

Field Survey, 2021

From the result in table above, the majority (66.6%) of the respondents were female with 80 frequencies while 33.4% were male with 40 frequency. These shows that female are more involved in farming in Tai Local Government Area of Rivers State. This could be attributed to

production system of the people. Random selection techniques were employed.

SOURCES AND METHOD OF DATA COLLECTION

The instruments that were used for this study were a self designed, structured questionnaire.

DATA COLLECTION

Data for this study were gathered from both primary and secondary sources: Research reports, proceeding, journal books, internet and information from ministry of agriculture make up the secondary sources while information generated with questionnaire/interview schedule from farmers constitute the primary data.

ANALYTICAL TECHNIQUES

The responses of various farmers were subjected to frequency counts. Simple percentage and tables were used for data analysis.

Table2. Distribution by Level Of Education

Level of education	Frequency	Percentage
Non-formal education	15	12.5
Primary	20	16.7
Secondary	30	25
Tertiary	55	45.8
Total	120	100

Field Survey, 2021

From table 2 it show that 45.8% farmers had tertiary education with the frequency of 55 while 25% were secondary level with a

the socio- cultural advantages in favour of female in the area. By this result its not supported by the findings of Nwankwo, Peters and Benkelman (2009) which stated male gender still dominated farming activities in Nigeria.

frequency of 30, 16.7% were primary level with frequency of 20 while 12.5% had no formal educational level with a frequency of 15.

Tables3. Age

Age (years)	Frequency	Percentage (%)
19-32	49	40.8
33-46	31	25.8
47-60	20	16.7
61-74	20	16.7
Total	120	100

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Field survey, 2021

Table4. Are you aware of organic practices?

Responses	Respondents	Percentage %
Yes	75	62.5
No	45	37.5
Total	120	100

Field survey, 2021.

It was indicated that 75 respondents which represent 62.5% were aware of organic farming while 45 respondents represent 37.5% were not

aware of organic farming. This shows that majority of the crop farmer are aware of organic farming.

Table5. What is your Aims of production

Aims of production	Respondents	Percentage%
Consumption	30	25
Sale	65	54.1
Both	25	20.9
Total	120	100

Field survey, 2021

From the table above, it is indicated that farmers with the aim to sale they produces formed the majority with 65 respondents represent 54.1%

while 30 respondents were consumption which represent 25%, 20.9% represent both with the frequency of 25.

Table6. Do you practice Organic Farming?

Respondents	Frequency	Percentage%
Yes	25	20.8
No	95	79.2
Total	120	100

Field survey, 2021

The table shows that (20.8%) which represent 25 respondents practices organic farming while 95 respondents which represent 79.2% don't

practice organic farming, majority of the farmer do not practice organic farming.

Table7. Do you practices the following organic practices?

Organic farming practice	Yes	No
Crop rotation	2	12
Green manure	0	15
Cover crops	2	10
Farmyard manure	5	5
intercropping	2	8
Mulching	5	25
Proper spacing	0	5
Bush fallowing	20	2
Spot burning	2	0
Total	38	82

Field survey, 2021.

From the table above shows that 12 respondents don't practices crop rotation ,15 respondents don't practice green manure,2 respondent don't practice cover crops, 5 respondents don't practice farmyard manure, 8 respondents don't practice intercropping, 25 respondents don't practices mulching, 5 respondents don't practices proper spacing, 10 respondents don't

practices bush fallowing, nor respondent practice spot burning, while 28 respondents were involved in the practices ; 2 respondents practices crop rotation , nor respondent for the practices of green manure, 2 respondents practices cover crops, 5 respondents practices farmyard manure, 2 respondents practices intercropping, 5 respondents practices mulching,

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2 respondents practices proper spacing, 20 respondents practices spot burning. Majority of respondents practices bush fallowing, while 2 the respondents that practices bush fallowing.

Table 8. Strategies for the improvement of organic farming

Suggestion	Yes	No
Research institutes should be funded for intensive research on organic farming.	35	
Government should create awareness on the severity of problems of conventional farming.	30	
Development of a strong domestic market to protect the interest of the farmer.	15	
Ministry of agriculture and extension services should be more functional in sourcing and making information on organic farming available to farmers.	10	
Total	90	

The table above shows that 35 respondents agree to the suggestion that research institution should be funded for intensive research on organic farming, 6 respondents disagree, 30 respondents agree that government should create awareness on the severity of problems involved in organic farming while 8 disagree, development of a strong domestic market to protect the interest of the farmer 15 respondents agree while 10 disagree, 10 respondents agree and 6 disagree to the suggestion that ministry of agriculture and extension services should be functional in sourcing and making information on organic farming to farmer. 35 respondents forming the highest number of the respondents agree to the suggestion that research institution should be funded for intensive research on organic farming.

DISCUSSION OF FINDINGS

The result of this study shows that 200 questionnaires were distributed and 120 were retrieved. The study also reveals that majority of the farmers were aware of organic farming. The result also indicates that the level of awareness is high, while the practices of organic farming in tai local government area is low.

SUMMARY OF FINDING

The study was conducted to investigate the analysis of the level of awareness and practice of organic farming among farmers in Tai Local Area of Rivers State Nigeria. The study specifically, focused on crop farmers in other to known the level of awareness and practice of organic fanning among crop farmers in Tai Local Government Area.

Simple random sampling was used to select 120 respondents from 10 communities in the study area. Data for the study were collected mainly from primary source using questionnaire. Data

generated were analyzed using descriptive statics such as frequency tables and percentages.

From data analyzed, 66.6% of the respondents were female while married (57.5%). Young people were more involved in organic farming. The level of awareness is high, the practices of organic Farming among the Farmers Is Low.

CONCLUSION

Having done a serious and systematic research work in this study, the researchers were able to draw the following conclusion. (A) The study concluded that the level of awareness of organic farming is high while the farmers practicing organic farming is of a lower degree and they were constrained by lack of technical know-how, social factors in Tai local government area of Rivers State.

(B) The result of this study also indicates that organic farming is compatible with cultural system and eco-friendly environment. The result from this study will be useful to farmers, extension workers, agricultural experts in Nigeria and general public as well as government officials to help the farmers.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

- [1] Extension education campaign should be mounted on organic agricultural practices to sensitize farmers on the use and benefits. This will create awareness among farmers as well as sustain interest of those already in the practice.
- [2] Organic agricultural practices should be incorporated in the curriculum of agricultural science undergraduates to equip the prospective graduates with the requisite knowledge and skill needed for successful entrepreneurship in agriculture.

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- [3] The government should put in place infrastructural facilities that stimulate and enhance organic farming practices, processing, storage and marketing. knowledge, skill and attitude needed for training farmers on organic agricultural practices.
- [4] Capacity building programme should be organized for extension agents to develop the

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