

IMPETUS OF WOMEN INCLUSION AND ASSUMPTION OF ENHANCED GUINEA CORN PROCESSING TECHNOLOGIES IN YAURI LOCAL GOVERNMENT AREA OF KEBBI STATE. NIGERIA

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Abstract

The research was aimed at examining the impetus of women inclusion and assumption of enhanced Guinea corn processing technologies in Yauri LGA of Kebbi State, Nigeria. This study was carried out in four communities of Yauri LGA of Kebbi State, Nigeria which were; Gungun, Yabo, Sarki and Dorowa, as participation communities in Guinea corn processing. Multistage random sampling was used to choose 163 respondents. Face-to-face interviews with guinea processors generated primary data, which was obtained using structured questionnaires. The socio-economic profile of the sampled respondents was determined using descriptive methods. The data obtained from objective I and III was analyzed using descriptive statistics such as (frequency distribution, percentage mean) objective II was achieved using Assumption Rate. The outcome of the research appeared that most of the respondents were active with mean age of approximately 33 years while the average

Introduction

Guinea corn is one of the most widely-grown staple food crop in sub-Saharan Africa (SSA) occupying more than 33 million hectares each year (FAOSTAT, 2020). The crop covers nearly 17% of the estimated 200 million hectares cultivated land in SSA, and is produced in diverse production environments and consumed by people with varying food preferences and socioeconomic strata. It is an important source of carbohydrate, protein, iron, vitamin B, and minerals. Furthermore, Guinea corn (fresh on the cob) is eaten parched, baked, roasted or boiled; playing an important role in filling the hunger gap after the dry season and serving as a staple diet for over 200 million people.

family size was 9. The findings of the study showed that 42.4% were married and educational mean was 7years and almost 65% with non-formal education. The constraints faced by the women guinea corn processors ranges from lack of credit facilities, inadequate equipment and unavailability of market. It was recommended that credit facilities, availability of market and adequate working equipment should be provided for women guinea corn processors in the study area to enhance their livelihoods.

KEYWORDS: Impetus, Inclusion, Women, Guinea corn, Processors, Assumptions.

According to Yusuf (2022), Nigeria's deficient food situation has been worsened by declining farm productivity owing to inefficient production techniques, poor resource base and insufficient farm labour amongst others. Nigeria agricultural production is highly dominated by peasant farmers, characterized by limited access to credit facilities and modern technology farm inputs. These farmers however are responsible for about 95% of total agricultural output (Salihu, 2021). In Nigeria, guinea corn is produced across the country right from mangrove region in the Sahel savannah in the North. Guinea corn is widely processed into a variety of food drinks such as pap, "kunu". In the North, it is used to prepare tuwo. The growing plant can be cut and made into silage or hay for the feeding of cattle and other ruminants. (Yohanna, 2022). New technology tends to raise output and reduces average cost of production which in turn results in substantial gains in farm income (Kachalla, 2022). Adopters of improved technologies increase their productions, leading to constant socio-economic development. A new agricultural technology that enhances sustainable production of food and fiber is therefore critical for sustainable food security and economic development. This has made the dynamics of technical change in agriculture to be an area of intense research since the early part of twentieth century (Umar, 2020). These technologies are particularly relevant to smallholder farmers in developing countries because they are constrained in many ways, which makes them a priority for development efforts. Over the years many studies have been conducted on innovation and uptake of new technologies in developing countries.

The purpose of the study is to examine the impetus of women inclusion and assumption of enhanced guinea corn processing technologies in Yauri Local Government Area of Kebbi State.

Specific objectives are to:

- Describe the socioeconomic characteristics of women inclusion and assumption of enhanced guinea corn processing technologies.
- Examine the impetus of women inclusion and assumption of enhanced method of guinea corn processing
- Identify the constraints faced by respondents.

MATERIAL AND METHODS

Selection of the study area and sample

The research was carried out in four (4) different communities in Yauri Local Government area of Kebbi State. Both descriptive and analytical techniques were used for the study. The communities are: Gungun, Yabo, Sarki and Dorowa as participation communities in guinea corn processing.

Sampling Procedure and Sample Size

Multi-stage sampling technique was used for the study. The first stage involved random selection of Agricultural zones IV (Yauri) in the State. At the second stage, one (1) Local Government Area (LGA) was randomly selected, this is due to the abundance of guinea corn production activities in Yauri local government area of agricultural zone IV. The third stage involved random selection of four (4) communities from the Local Government Areas (LGA). At the fourth stage, 15% of the guinea corn producers were randomly selected from the sampling frame of each community. In all, a total of 163 respondents were selected from the LGA as the sample size for the study.

Table 1: Sample distribution of the respondents in the study area

Communities	Sample frame	Sample size (15%)
Gungun	353	37.1
Yabo	265	25.5
Sarki	242	22.6
Dorowa	140	14.8
Total	1000	100

Sources: Field survey, 2022

Method of Data collection and Analytical Techniques

Primary data was used for the study, the data were collected by researchers and trained enumerators using structured questionnaire complimented with interview schedule. The data obtained from objective I and III was analyzed using descriptive statistics such as (frequency distribution, percentage mean). Objective II was achieved using assumption index.

RESULTS AND DISCUSSIONS

Socio-economic Characteristics of Respondents

Result in Table 2 revealed that majority (33.5%) of the guinea corn processors were between the ages of 35-44 years, 26.6% were between 25-34 years while 19.8% were between 45- 54 years and 14.5% were between 55 years of age and above. Only 5.6% of the processors were 15-24 years of age while the minimum and maximum age of the maize processors range between 25–54 years with an average mean of 32.6 years. This result shows that majority of the farming population were young and in the active age group implying that the farmers can make positive contribution to agricultural production as well as serve as agents of innovation transfer in farming activities. This result is in line with Caleb & Zakari 2022, who stated that active age of any agricultural activities boosts farmer's income and improve their livelihoods.

Marital Status

Table 2 also revealed that majority 73(42.4%) of guinea corn processors in the study area were married. These results indicated that larger proportions of guinea corn processors were married which imply high level of responsibilities. However, family responsibilities can prompt farmers' interest in seeking for new knowledge and innovation in guinea corn farming that will enhance farmers their income to enable them carter for their families. The finding is in agreement with Debo *et al.* (2022), who stressed that larger proportions of the rural farmers were married in Kaduna State, Nigeria.

Education Status

Table 2, indicate that the mean years spent in formal education in the study area was 7 years. These findings indicated significant low literacy level in the study area. However, low literacy level is expected to influence guinea corn processors' livelihood due inability to access information more quickly and inability to be

more likely adventurous. This finding agreed with Debo *et al.* (2022) who reported that level of awareness and assumption of agricultural innovation are affected by the literacy status of farmers

Household size

Table 2, also indicated that the mean household size of rice producers in the study area was 9 person. This result implies that guinea corn processors had moderate household sizes. However, moderate household size could negatively affect access to unpaid family labour and subsequently influence guinea corn processors' income. The finding is in line with that of Inga *et al.* (2021), who stated that majority of farmers in rural province of Sub-Saharan Africa had moderate household sizes

Table 2: Socioeconomic characteristic of guinea corn processors

Variables	Yauri (n=163) Freq (%)
Age	
15-24	14(5.6)
25-34	45(26.6)
35-44	50(33.5) mean – 32.6
45-54	35(19.8)
>55	19(14.5)
Marital status	
Married	73(42.4)
Single	45(29.8)
Widow	30(21.6)
Divorced	15(6.2)
Education status	
Primary	28(10.2)
Secondary	45(19.8)
Adult	10(5.0)
Non-formal	80(65.0)
Household size	
1-5	42(22.9)
6-10	65(42.6) mean = 9
11-15	48(27.2)
16-20	5(4.8)
>20	3(2.5)

Sources: Field survey, 2023

Impetus of women inclusion and assumption of enhanced method of guinea corn processing

The estimated assumption rate of the enhanced guinea corn processing by women processors in the study area is shown in table 3. The result showed that a larger proportion of farming households enhanced improved guinea corn processing technologies with an adoption rate of 70.2% which implies that rate of adoption is high in the study area, this result is in line with Emeka & Frank 2022 which affirms that high rate of adoption of Agricultural technology enhance livelihood sustainability and increase income of farming family.

Table 3: rate of adoption of guinea corn processing technology in the study area

Type of technology	Guinea corn processors = (n = 163) Adopters/Non adopters		Adoption rate (%)
Local processing	Non adopters	43	28.8
Improved processing	Adopters	120	70.2

Source: Field survey 2023

Constraints faced by guinea corn processors in the study area.

The result showed that lack of credit facilities in the study area ranked first with 55.3%, inadequate equipment for guinea corn processing ranked second with 28.7%. Unavailable market ranked as the third constraint with 16%. The implication of this finding is that the guinea corn processors in the study area are producing under small skills profit resulting from lack of credit facilities and high cost of equipment. This ultimately forced some of them to produce mainly for subsistence purpose to feed themselves and their families. This is results is in collaboration with the study by (Musa and Halilu, 2022) who view that high poverty levels among rural women and lack of access to credit make it almost impossible for them to afford an innovation.

Table 4: Constraints faced by women guinea processors in the study area

Constraints faced	Frequency	Percentage
Lack of working capital	85	55.3
Inadequate equipment	58	28.7
Unavailability of market	20	16
Total	163	100

Source: field survey, 2023

CONCLUSION AND RECCOMENDATIONS

Based on the findings of these research it can be concluded that majority of women guinea corn processors were in their active age and are married. The literacy level of guinea corn processors in the study area was low with about 65% with no formal education which may affect their level of assessing formal information. Moreover, majority of the guinea corn had moderate household size. Further findings revealed that majority of the guinea corn processors adopted guinea corn processing technology. Rate of adoption may increase their income and sustainability of their livelihoods. The findings furthered showed that lack of credit facilities, unavailability of market and inadequate working equipment are major constraints faced by the women guinea corn processors in the study area. It was recommended that credit facilities, availability of market and adequate working equipment should be provided for women guinea corn processors in the study area to enhance their livelihoods.

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