



## **The Impact of Nigerian Agricultural Insurance Corporation on Insured Farmers' Income in Taraba State**

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### **Abstract**

Research on the Impact of Nigerian Agricultural Insurance Corporation on Insured Farmers, Income in Taraba State who sustained losses as a result of natural disasters is being done solely empirically to see whether the farmers were able to return and continue operating in agriculture the following year. The main objective of this research study is to determine the Impact of Nigerian Agricultural Insurance Corporation on Insured Farmers Income in Taraba State. The study area is six local government areas of Taraba State which is selected by convenient sampling techniques cut across the three senatorial districts, they are Karim lamindo, Ardo – kola, Lau, Bali, Gossol and Wurunkari. 3223 insured farmers make up the study's population, which represents all the farmers registered with the Nigerian Agricultural Insurance Corporation in Jalingo, Taraba State. Taro Yamane's sample size formula yielded a sample size of 356 from the population. Data were gathered using a survey sample technique, which entailed the use of questionnaires. Only 348 of the approximately 356 questionnaires that were distributed were returned. The microfinance and commercial banks that disbursed loans and assisted the farmers to insured their farms with Nigerian Agricultural Insurance Corporation (NAIC), which provides farm insurance in Nigeria, helped the researcher gather the respondents via their various farmers' cooperatives. T - test method is used to analyzing the null hypothesis at 0.05 level of significance. The research finds out that the Nigerian Agricultural Insurance Corporation plays a significant impact in protecting farmers' incomes through the payment of compensation that enables farmers to continue operating their farms the following year irrespective of the losses incurred. Various recommendations were made, including the need for cheap insurance premiums to be offered, among others.

**Key words:** Nigerian Agricultural Insurance Corporation, Insured farmers, Income, Impact, Taraba state

### **Introduction**

Natural disasters including floods, droughts, and even diseases affecting crops and livestock have caused farmers to experience significant losses

recently (Aina & Omonona, 2012). Losses have deterred peasant farmers from continuing to raise cattle and develop crops, claim Akinrinola &

Okunola (2014). Many farmers express doubts about their capacity to cover farming expenses, meet the demands of their families, and repay any debt because of the natural risks to agricultural production, which have caused doubts about farmers' revenue and low or no profit (Akinrinola et al, 2014). The Nigerian economy's most important sector, agriculture is the backbone of food security because it has made significant contributions to the production of food, raw materials for manufacturing, materials for constructing shelters, raw materials for textile companies, income generation, growth of the GDP of Nigeria, and, most importantly, the provision of jobs for citizens (Otu, 2021). According to Azubuike (2015), risk is a major problem that might be amplifying the availability of resources in farming. Regardless of this, Oruonye & Adebayo (2015) noted that Taraba state is an agrarian state with over 75% of its residents depending on agriculture as their primary source of income. These data, however, revealed that Taraba State had a sizable agricultural population.

According to Akinrinola et al. (2014), climate change has exposed Nigeria's Taraba state's farmers to terrible natural disasters like floods, draughts, pest infestations, and many more. He added that this might get worse in the future, which would hurt people in the community financially. Young people engaged in farming in the villages of Taraba State were devastated by natural disasters, and as a result of the damage, loss of their farming investment, and inability to recover losses; they abandoned their farming activities and moved to the cities in search of an easy source of income (Adetomiwa1, Oladejo, Opeyemi, & Adeyera, 2020). If this continues, there will be a food shortage, rise in unemployment, overcrowding in urban areas, and rise in crime, decline in gross domestic products (GDP), and obstruction of the agribusiness value chain. Festus,(.2010). The Nigerian Agricultural Insurance Corporation (NAIC), tasked with handling farmers' needs by providing agricultural insurance cover to help reduce losses incurred on crops and livestock and ensure adequate formulation, was established by the federal government of Nigeria in order to avoid these ugly trends and the refusal of conventional insurance companies to accept to cover agricultural insurance risk of farmers as considered to be too risky (Akintunde, 2015). Agricultural insurance is a mechanism that farmers can use to mitigate the negative consequences of natural risk (Adetomiwa et al, 2014). The aims of the Nigerian Agricultural Insurance Corporation according to Akintunde (2015), Akinola (2014), Adetomiwa et al (2014) are as follows: (i) To give financial assistance to farmers in the event of a natural disaster linked to climate change. (ii) To encourage financial institutions to lend money for agricultural investments. (iii) To increase investment in agriculture in order to promote agricultural production.(iv) To reduce the requirement for the federal government to offer ad hoc support in the event of a natural disaster that would have a negative impact on investment in agriculture. These goals align with those of Industrial and General Insurance Plc, which are to (i) lessen farmers' financial losses in the event that their crops or livestock fail due to a natural disaster like a flood, drought, windstorm, pest, or disease, and (ii) offer farmers efficient technical advisory services in order to reduce their risk of loss. In light of these goals, the study "The Impact of Nigerian Agricultural Insurance Corporation on Farmers Income in Taraba State" was developed. Therefore, the study will critically evaluate whether Nigerian Insurance Corporation should assist farmers who sustained a total loss as a result of natural calamities in order to keep them in the agricultural industry.

#### **STATEMENT OF THE PROBLEM**

The Federal Government established the Nigerian Agricultural Insurance Corporation (NAIC) to promulgate the Nigeria Agricultural Insurance scheme and saddled with the responsibility to indemnified crops and livestock farmers who suffered total loss as a result of natural disaster such as flood, drought, diseases etc to keep them in agric-business. In recent times it was noted that crop farmers in Taraba State have suffered severe loss in their farms due to drought and flood. It was also

observed that there are insured farmers that suffered losses and were compensated by NAIC, and still find it easy to recover from the losses incurred, consequently, this makes them willing to go into farming the following year. While other farmers who had their farms uninsured find it difficult to recover from their losses, and as a result of that unwilling to go into farming the following year due to fear of the unforeseen. Does this mean that the compensation giving to them, have significant impact on the level of loss suffered? And was there no delay in the payment of their compensation? Therefore, this instigated the researcher to examine the Impact of Nigeria Agricultural Insurance Corporation (NAIC) on insured farmers' income.

### **OBJECTIVES OF THE STUDY**

The main objective is

- i. To identify the Impact of Nigerian Agricultural Insurance Corporation to Insured Farmers Income in Taraba State.

### **RESEARCH QUESTIONS**

- i. What are the Impacts of Nigerian Agricultural Insurance Corporation to Insured farmers' income in Taraba State?

### **RESEARCH HYPOTHESIS:**

In order to attain the purpose of this study, the following hypothesis is formulated to guide the researcher:

**Ho1:** Nigerian Agricultural Insurance Corporation does not have any significant impact on the income of insured farmers

### **REVIEW OF RELATED LITERATURE**

#### **CONCEPTUAL ISSUES OF AGRICULTURAL INSURANCE**

Agricultural insurance is a type of policy that covers more than only the risk posed by crops and livestock. Additionally, it applies to forestry, aquaculture, high-value animals (high pedigree animals), and greenhouse crops (Atlas Magazine, July, 2022). Therefore, Roman (2018) defines agricultural insurance as a policy that aids in protecting all biologically based agricultural production resources, such as crops, cattle, aquaculture, equines and bloodstock, forestry, and greenhouses. It is the defense of animals and crops against certain natural threats (such as pests, wind, flood, and drought). According to David (2008), farm insurance is made to protect both individuals and businesses involved in agricultural output. A little over ten years (2005 to 2014) have seen an almost fourfold increase in agriculture insurance premiums. Agricultural insurance is a financial mechanism used to pay a premium to a third party and transfer production risks linked with farming. Therefore, the most crucial tool for reducing the negative consequences of natural disasters is agricultural insurance. When similar exposure from a large number of farmers is pooled, the predictability and severity of losses frequency are significantly increased (Atlas Magazine, 2022). Agricultural Insurance Scheme is a collective system or scheme for reducing economic uncertainties through the fundamental techniques of risk pooling (Akinrinola et al., 2014).

### **THE NIGERIAN AGRICULTURAL INSURANCE CORPORATION**

In order to expressly provide agricultural hazards insurance coverage to Nigerian farmers, the Federal Government of Nigeria established the Nigerian Agricultural Insurance Corporation, which is a fully owned insurance firm. The Nigerian Agricultural Insurance plan was established in November of 1987,

and the Nigerian Agricultural Insurance Company Limited was established in June of 1988 with the authority to oversee the full implementation and efficient operation of the plan. It later became a corporation in 1993 thanks to the enabling Act 37 of 1993, and since then it has aided thousands of Nigerian farmers. (NAIC , 2020). The Nigerian Agricultural Insurance Corporation's abbreviation is NAIC. According to the act, the Corporation's responsibilities include the following: (a) implementing, managing, and administering the Agricultural Insurance Scheme established by section 6 of this Decree; (b) reducing the premiums charged on certain crops and livestock policies with grants obtained from the Federal and State Governments and the Federal Capital Territory, Abuja; and (c) enticing farmers to stay in the agricultural industry.

### **AGRICULTURAL INSURANCE POLICIES OPERATED BY NIGERIAN AGRICULTURAL INSURANCE CORPORATION**

According to Nigerian Agricultural Insurance Corporation, (2020), the company offers the following categories of agricultural insurance policies: (i) NAIC Poultry Insurance. (ii) Insurance for cattle.(iii) NAIC Crop Insurance. The following agriculture policies that Industrial and General Insurance Plc offers are included in their 2020 publication as: (i) Policy for Multi-Peril Crops (ii) policy for poultry insurance. (iii) Fish farm/fishery insurance policy. (iv) plantation fire insurance policy. (v) Livestock insurance policy and farm all risk insurance policy. Anyanwu, (2015), Bayero & Abbas, (2017), Ogungbemi, & Awoniyi, (2017) in their various scientific research highlighted various insurance policies designed to shield farmers and other agricultural stakeholders from a variety of risks and unforeseen circumstances. Among the main product categories provided by NAIC are: (i) Crop insurance protects consumers from crop output losses brought on by pests, diseases, drought, flooding, and other calamities. (ii) Animals Insurance:

### **EMPIRICAL REVIEW OF THE IMPACT OF NIGERIAN AGRICULTURAL INSURANCE CORPORATION ON FARMERS' INCOME.**

According to Falola, Ayinde & Agboola, (2013)., on their empirical study mentioned that the Nigerian Agricultural Insurance Scheme is an authentic means used to convey production risks connected with farming to a third party thereby alleviating farmers income. Epetimehin (2011), also in his empirical study asserted that the Nigerian Agricultural Insurance Corporation is a useful instrument for dropping the losses farmers suffer due to natural disasters such as floods, droughts, and outbreaks of pests and diseases. Akintunde, (2015) in an empirical research carried by him opined that the Nigerian Agricultural insurance scheme has created room for farmers to access loans to financing their investment and enable the purchase of modern farm technologies, tools, and equipment to enhance and sustain their productive capacity. Adetomiwa, (2020), empirical study accepted with that of Akintunde, (2015) that farmers who partake in agricultural insurance scheme get in touch with extension workers had access to loans from financial institutions. Agricultural insurance is beneficial; agricultural insurance reduces farmers' worries and stress. Akinrinola, et'al, (2014), the empirical findings of his study showed that there was increase in the investment level of the farmers after their participation in the insurance scheme. This can be attributed to their accessibility to farm credits which is one of the objectives of the insurance scheme. Akinrinola, et'al, (2014), in his empirical study Identifies the followings impact of agricultural insurance Corporation on farmers (a) it protects farmers against financial disaster after suffering any of the insured risks for which indemnity (compensation) is paid. The farmer is not only able to continue in business but also the stability of his income is enhanced; (b) agricultural insurance empowers the farmers to obtain farm credit. Since insurance guarantees protection against crop and/or livestock failure, the insured farmer has greater confidence in obtaining

loans; (c) it facilitates better planning and project implementation since there is a high level assurance for continuity in business; (d) it serves as an assurance to banks and other financial institutions who grant loan for agricultural purposes as loans given will be repaid; (e) it build farmers confidence in using new technologies and making greater investments in agriculture Recognizing the benefits of agricultural insurance, the Nigerian Government in 1987 established the Nigerian Agricultural Insurance Scheme (NAIS). Ademola, Adjoji & Akangbe (2019) in their empirical study states that the Nigerian Agricultural Insurance Corporation (NAIC) plays a crucial role in providing risk management solutions to insured farmers in Nigeria. NAIC offers various insurance products tailored to the agricultural sector, protecting farmers against potential losses caused by natural disasters, pests, diseases, and other risks associated with farming activities.

**METHODOLOGY:**

The study area for this research is Taraba State which consists of sixteen (16) local government areas to determine the impacts of Nigerian Agricultural Insurance Corporation on Insured Farmers Income. However, six local government areas are selected by convenient sampling techniques for the study base on the number of farmers that have their farms insured with the Nigerian Agricultural Insurance Corporation, Jalingo, Taraba State. These local government areas are Karim lamindo, Ardo – kola, Lau, Bali, Gossol and Wurkari which spread across the three senatorial districts of Taraba State. The population of the study is 3223 registered farmers with the Nigerian Agricultural Insurance Corporation in Jalingo, Taraba State for the year 2022 rain fed season. This study used simple random sampling techniques in the distribution of the questionnaires. The microfinance and commercial banks that disbursed agric loans and assisted the farmers to insured their farms with Nigerian Agricultural Insurance Corporation (NAIC), which provides farm insurance in Nigeria, helped the researcher gather the respondents via their various farmers cooperatives. The researcher used Taro Yamane sample size formula which yielded a sample size of 356 from the population. Out of the 356 questionnaires distributed Only 348 of the questionnaires that were returned. Data collected is analyzed using simple percentage on the demographic, and T. test was used to test the null hypothesis either to be accepted or rejected at 0.05 level of significacnce through the use of statistical soft ware SPSS. A structured questionnaire was prepared for collecting primary data in addition to the data from secondary sources. The reliability of the research instrument was tested through pilot testing and validation of the instrument was done through the use of three professional in the department of statistics. Data collected helped to determine the Impact of Nigerian Agricultural Insurance Corporation on Insured farmers Income that suffered loss due to natural disaster to see if the farmers can return to farm the following year.

**ANALYZING OF DATA**

**Demographic Data of Respondents**

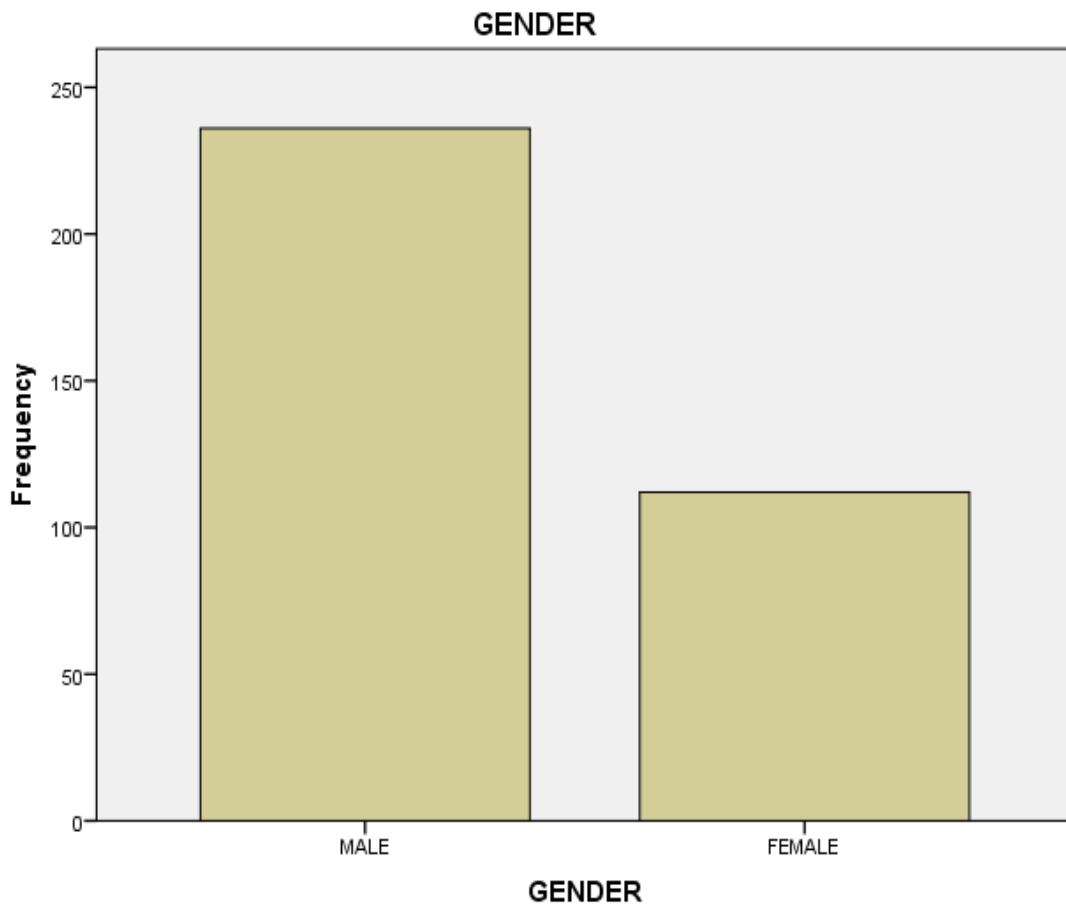
**Table 1: Distribution of Respondents Gender Frequency Table**

| GENDER |        | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|--------|-----------|---------|---------------|--------------------|
| Valid  | MALE   | 222       | 65.4    | 65.4          | 65.4               |
|        | FEMALE | 126       | 34.6    | 34.6          | 100.0              |
| Total  |        | 348       | 100.0   |               |                    |

Source: Field Survey, 2023

The above shows that 65.4 percent of the respondents were males, while 34.6 percent were females from the various locations that served in the study which shows that the majority of the respondents who made responses through the questionnaires were males.

The above chart illustrates that the numbers of males as respondents is higher than that of females. This indicates that most of farmers that gave their responses in this research work were males.

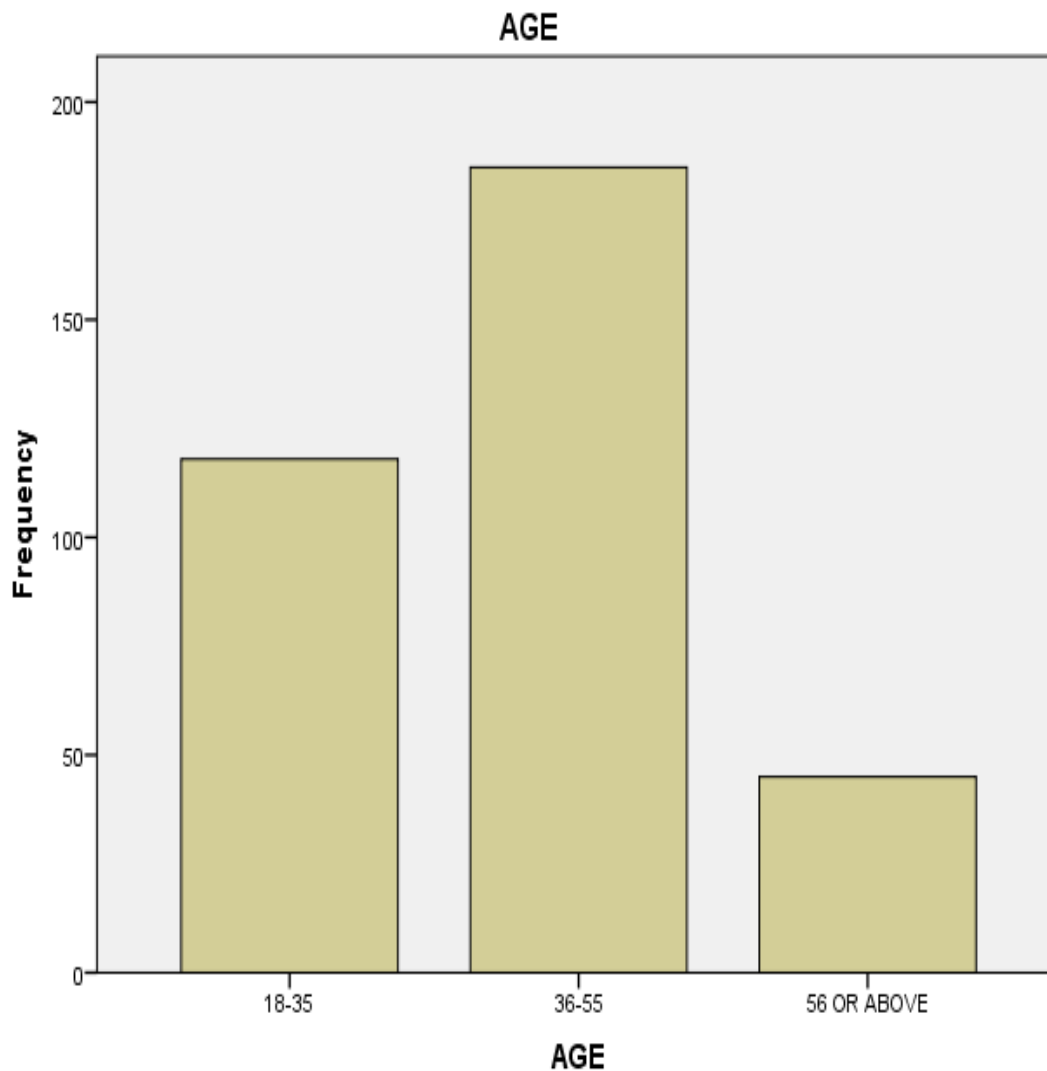


**Table 2: Distribution of Respondents by Age**

| AGE         | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------|-----------|---------|---------------|--------------------|
| Valid 18-35 | 118       | 32.7    | 32.7          | 32.7               |
| 36-55       | 185       | 51.2    | 51.2          | 83.9               |
| 56 or above | 58        | 16.1    | 16.1          | 100                |
| Total       | 348       | 100.0   |               |                    |

**Source:** Field Survey, 2023

Table above shows that 32.7 percent of the respondents were between the ages of 18-35, 51.2 percent were respondents between 36-55 of age and 16.1 percent were responded between 56 and above. This indicates that between the ages of 36 – 55 has the highest number of respondents



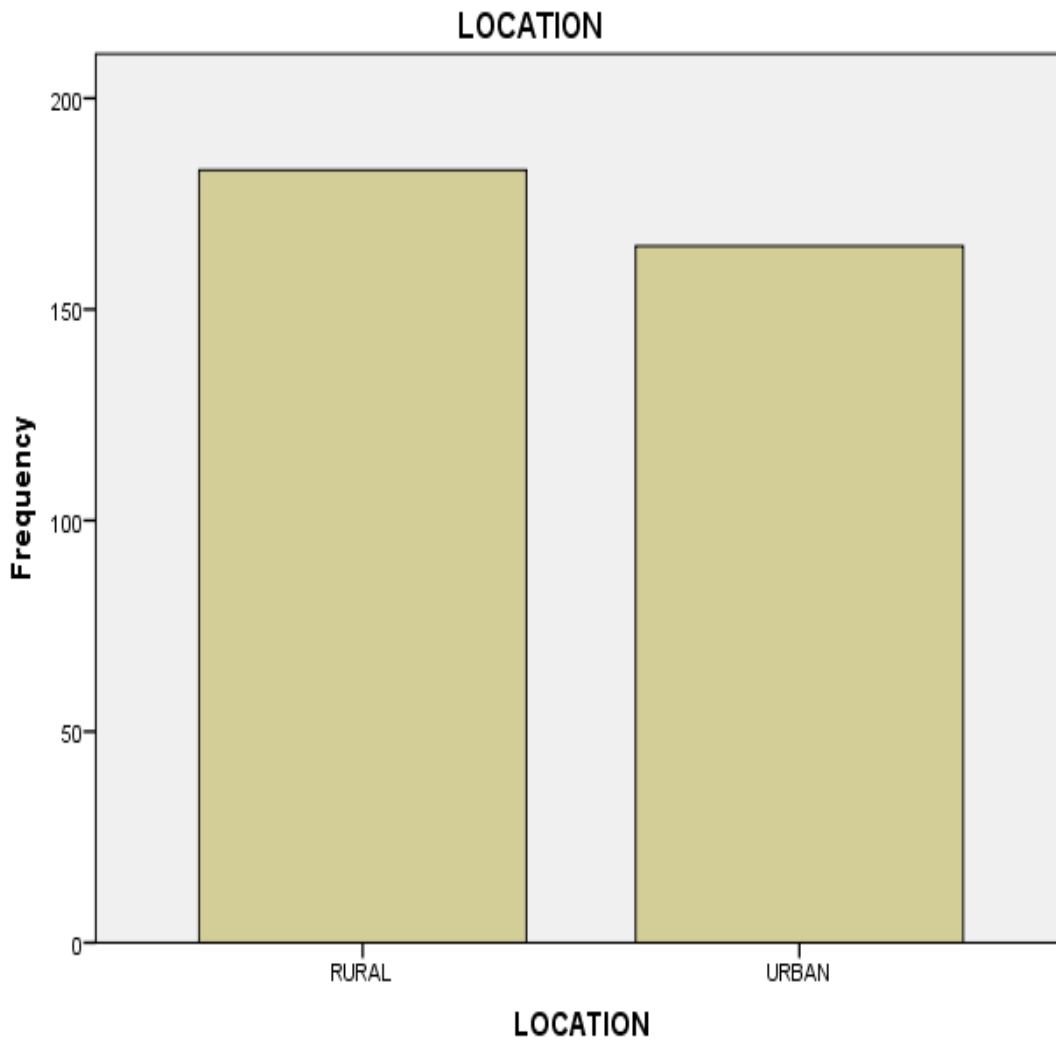
The above chart signifies that between the ages of 36 – 55 years has the highest number of respondents.

**Table 3: Distribution of Respondents by Locations**

| LOCATION |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------|-------|-----------|---------|---------------|--------------------|
| Valid    | RURAL | 190       | 54.3    | 54.3          | 54.3               |
|          | URBAN | 158       | 45.7    | 45.7          | 100.0              |
|          | Total | 348       | 100.0   | 100.0         |                    |

Source: Field Survey 2023

The above table explains that 54.3 percent of the respondents are in rural areas, and 45.7 percent are in the urban areas. This signifies that more of the respondents dwelled in the rural areas than the urban areas.



The above chart indicates that more of the respondents live in the rural areas than urban

**Table 4; ARE YOU CURRENTLY INVOLVED IN FARMING ACTIVITIES**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid |           |         |               |                    |
| YES   | 310       | 85.9    | 85.9          | 89.5               |
| NO    | 38        | 14.1    | 14.1          | 100.0              |
| Total | 348       | 100     | 100.0         |                    |

Source; Field Survey, 2023

The above table shows that 85.9 percent of respondents are currently involved in farming activities and 14.1 percent are not involved in farming activities as at the time of the reseach. This signifies that more of the respondents are currently involved in farming activities.





The above chart signifies that the number of respondents currently in farming is more than the respondents currently not in farming.

**HO1:** Nigerian Agricultural Insurance Corporation does not have any significant impact on the income of insured farmers.

**T-Test**

| One-Sample Statistics   | N  | Mean  | Std. Deviation | Std. Error Mean |
|---|----|-------|----------------|-----------------|
| NIGERIA AGRICULTURAL INSURANCE CORPORATION DOES NOT PLAY SIGNIFACANT IMPACT ON FARMERS INCOME | 64 | .5938 | .93806         | .11726          |

Source: field Survey, 2023

| One-Sample Test   | Test Value = 0 |    |                 |                 | 95% Confidence Interval of the Difference |       |
|---|----------------|----|-----------------|-----------------|---|-------|
|   | T              | Df | Sig. (2-tailed) | Mean Difference | Lower                                     | Upper |
| NIGERIA AGRICULTURAL INSURANCE CORPORATION DOES NOT PLAY SIGNIFACANT ROLE IN FARMERS INCOME | 5.064          | 63 | .000            | .59375          | .3594                                     | .8281 |

Source: Field Survey, 2023

Decision Rule: if calculated value is greater than critical value then reject null hypothesis or if the otherwise. The above table shows the output of one sample t test.  $t(63) = 5.064$ ,  $P > 0.05$ . This means that the Nigeria Agricultural Insurance Corporation has significant impact on the income of insured farmers who suffered losses and want to remain in agric – business the following year.

## DISCUSSIONS AND FINDINGS

Findings from the research study shows that the respondents agreed that the services of the Nigerian Agricultural Insurance Corporation have significant impact on farmers' income, and insured farmers that suffered severe losses on their farms as a result of natural disaster could be able to remain in agric – business the following year through the compensations paid by Nigerian Agricultural Insurance Corporation.

## CONCLUSION

The study bring to a close that farmers in the study area were at their middle age of 36 – 55 and most of the farmers sampled were male. These farmers were both in urban and rural areas of which more of them sampled were in the rural areas. Majority of the farmers sampled according to the study were currently into farming activities. At the end of the study, through the use of t – test statistical analysis, it was concluded that Nigeria Agricultural Insurance Corporation plays significant impact on the income of insured farmers who had suffered total loss and want to remain in agric – business the following year. This is done by providing compensations for crop losses, provision of financial resources for replanting or recovery and providing affordable insurance premium amongst others. This will encourage farmers to go into mechanized farming for large production of foods and raw materials for human consumptions and industrial use.

## RECOMMENDATIONS

1. Government and stakeholders should create more awareness to farmers to encourage more participation in agricultural insurance scheme in Taraba State.
2. Government and the Nigerian Agricultural Insurance Corporation should provide affordable insurance premium to encourage farmers' participation in the scheme.
3. Government and the Nigerian Agricultural Insurance Corporation should ensure timely payment of compensation to insured farmers who suffered loss as a result of natural disaster in order for the farmers to be in agric – business the following year.

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