

## **EFFECTS OF BANDITRY ON INCOME AND LIVELIHOODS OF YAM MARKETERS IN SHIRORO LOCAL GOVERNMENT AREA OF NIGER STATE, NIGERIA**

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### **ABSTRACT**

*The study was on effects of banditry on income and livelihoods of yam marketers in Shiroro Local Government Area of Niger State, Nigeria. Banditry is one the major confronting production and marketing of yam in Shiroro Local Government of Niger State. The activities on banditry over the years have paralysed economic activities since majority of the populace derived their livelihood from farming. The menace posed by banditry has affected rural populace income livelihood thereby making them sojourning in the neighboring Local Government Area. Multi-stage sampling technique was used to select 197 of yam marketers. Data were collected using structured questionnaire and interview scheduled. Data were analyzed using descriptive statistics (percentages, frequency, count and mean), multiple regression and livelihoods status index. The results revealed that majority of respondents were male with long year of experience in yam marketing. The coefficient of low participation on weekly contribution (Adashi) (1.9823.93) was negatively significant at 10% level of probability. Also, 84.8% of the respondents in the study area were of very low livelihood status. Displacement of yam marketers from their native markets to nearby markets ( $x=2.42$ ) and rising of the price of yam stead ( $x=2.20$ ) were the major constraints faced by yam marketers. It was recommended that yam marketers should diversify into other income generating activities in order to improve their livelihood status and government should collaborate with village heads for provision of security for yam marketers.*

Keywords: Effect, Banditry, Income, Livelihoods, Yam Marketers

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### **INTRODUCTION**

Banditry is a person or groups of individuals who involved in the activities ranges of kidnapping to murder, robbery, rape and cattle –rustling (Dayo and Amina, 2015). Banditry is a term used to

refer to acts of robbery, conspiracy and violence where the rule of law were not duly followed (Isah, 2019). Banditry consists of the organization of armed bands for the purpose of attacking states, local governments, communities, social institutions, enterprises and individual persons. Globally, banditry has existed and operated in different parts of the world since the 17th century. In Europe, bandits have existed in mainly mountainous areas of Italy, Spain, Greece and Turkey (Aisha, 2020). In Asia, bandits have existed in several countries such as Iran, Philippines and India (Mohammed 2019). In Africa, precisely Nigeria bandits mostly organize their crime in isolated areas such as villages, community market squares, places of worships. Therefore, banditry has a rich and lucrative history throughout Africa especially Nigeria and despite continued anti banditry efforts by the government, the problem of banditry persists in Nigeria most especially in the Northern part of the country presently (Awwal, 2020). Banditry is another security challenge in Nigeria where bandits have continued to ravage the agricultural activities of the country. The prevalence and severity of banditry in Nigeria increase regional insecurity with a potential threat to regional integration of Northern Nigeria (Aisha, 2020). Saleh (2015); Jumare and Surma, (2015) reported that some of the bandits from some countries of the West African sub-region such as Niger Republic and Mali were invited to carry out large scale attacks in some countries of the sub-region. They moved through the porous West African borders with their arms to assist their fellow bandits in carrying out large scale or reprisal attacks. In Niger state, banditry came as a result of nearly four years of unresolved conflicts between settled cultivators and nomadic herders communities that wander on the high plains of some local governments such as Rafi, Rijau, Wushishi, Mashegu and Kontogora in Agricultural zone C. While in agricultural zone B, Shiroro, Bosso, Muye and Paikoro are also affected by banditry activities. Banditry in Shiroro LGA started since around 2017 and increased in 2020 especially during COVID 19 pandemic (Awwal, 2020). In fact, Shiroro LGA has been the epicenter of banditry in Niger state, where most of the bandit's leaders were based and they would move riding on motor cycles from one village or community to operate and return to their hideout (Awwal, 2020). Since banditry involved acts of robbery and violence on the people particularly rural dwellers who mainly engaged in agricultural production, processing and marketing; cattle rearing and other food production, processing and marketing activities it is bound to have effects on income and livelihood of rural dwellers. Food security according to the World Food Summit 2018 "exists when all people at all times, have physical and economic access to sufficient, safe,

and nutritious food that meets their dietary needs and food preferences for an active healthy life (FAO, 2018). The Food and Agricultural Organization (FAO, 2018) simply defines food security as the availability of food in terms of production, processing, marketing, distribution and consumption. Any form of violence that leads to insecurity in rural areas where majority of the people are farmers that produce two third of the food in the country. The United Nations in September 2020 observed that attacks by bandits group will deepen food insecurity into the year 2021 in Nigeria (Federal Ministry of Agriculture, 2020). In Nigeria, the Federal Government has realized that banditry has posed a serious threat to farming communities in the northern parts of the country. Therefore in April 2017, the Minister of Agriculture and Rural Development in conjunction with the Minister of Interior initiated the formation of a special unit of Agro-Rangers Corps to protect farmers and farming. The use of the Agro-Rangers was expected to forestall attacks on farmlands and boost farmer's confidence to work on their farms without fear of attacks, thereby guaranteeing the Federal Government avowed food security plans (Ahmad, 2020). The deployment of 5,000 Agro-Rangers to offer protection to farmers and farming investments across the country (Ahmad, 2020). The key actors of agricultural sectors identified the present challenges of attaining food security which included corona virus pandemic, occurrence of flood disasters, drought in some parts, and insecurity especially banditry in the Northern Nigeria (FMA & RD, 2020). This study therefore examines the effects of banditry's on income and livelihood of yam marketers in Shiroro LGA of Niger state. The objectives of this study are to: describe socio-economic characteristics of yam marketers in the study area; determine the effects of banditry on income and livelihood of yam marketers in the study area; determine the livelihoods status of yam marketers in the study area and examine the constraints faced by yam marketers in the study area.

## **MATERIALS AND METHODS**

Shiroro Local Government Area of Niger State is located in Agricultural Zone II, its headquarter is in the town of kuta. It has an area of 5,015 square kilometers (1,936 sq mi) and a projected population of 335,604 as at 2020. (Niger State Bureau of Statistics 2020). About 75% of its land area is good for arable crops production (Niger State Geographical Information System, 2020). It is located within Latitudes 6– 9°N and Longitudes 3 – 8°E) and with a growth rate of 2.2%. Shiroro Local Government experiences two distinct season dry and wet seasons with annual

rainfall varying from 1,100 mm in the Northern part to 1,600 mm in the Southern parts. The average annual rainfall is about 1,400mm. The duration of the rainy season is approximately 180 days. The wet season usually begins in April/May and ends by October, while the dry season starts from November to March. The maximum temperature of 29°C, average temperature of 22°C and minimum temperature of 26°C. The mean average temperature is around 32°C. Dry season commences in October (Niger State Geographical Information System, 2020). Most of the communities in the Local are predominantly agrarian. Tuber crops grown such as yam and cocoa yam, vegetables grown in the Local Government are, Spinach, Pumpkin, bitter leaf and water leaf leave. Tree crops grown are mango, citrus, coconut, cashew, banana and pawpaw. Other non-agricultural activities engaged by the people include blacksmithing, leatherwork, mat and basket making and trading. Women on the other hand engaged in technical handicraft and trading

### **Sampling procedure and sample size**

Multi-stage sampling technique was used for the study. The first stage involved random selection of Agricultural zones B in the State. At the second stage, one (1) Local Government Area (LGA) was randomly selected, this is due to frequent occurrence of banditry activities in Shiroro local government area of agricultural zone B. The third stage involved random selection of six (6) communities from the Local Government Areas (LGA). At the fourth stage, 10% of yam marketers were randomly selected from the sampling frame of each community. In all, a total of 197 yam marketers were selected from the LGA as the sample size for the study.

### **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 IV were achieved using descriptive statistics such as (frequency distribution, percentage mean). Objective (II) (effects of banditry on income and livelihood of yam marketer) was achieved using multiple regression model. The model is expressed in implicit form as shown in equation below:

$$Y = f(X_1, X_2, X_3, X_4, X_4, X_5, X_6, X_7, X_8, X_9U) \quad (1)$$

The functional form is expressed in the implicit forms as:

Linear form

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + U \quad (2)$$

Double-log form

$$\ln Y = b_0 + b_1 \ln X_1 + b_2 \ln X_2 + b_3 \ln X_3 + b_4 \ln X_4 + b_5 \ln X_5 + b_6 \ln X_6 + b_7 \ln X_7 + b_8 \ln X_8 + b_9 \ln X_9 + \epsilon_i \quad (3)$$

Semi-log form

$$Y = b_0 + b_1 \ln X_1 + b_2 \ln X_2 + b_3 \ln X_3 + b_4 \ln X_4 + b_5 \ln X_5 + b_6 \ln X_6 + b_7 \ln X_7 + b_8 \ln X_8 + b_9 \ln X_9 + \epsilon_i \quad (5)$$

Exponential form

$$\ln Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + b_7 X_7 + b_8 X_8 + b_9 X_9 + \epsilon_i \quad (6)$$

Afterwards, the model with the best fit was selected as lead equation

Where:

Y = income of yam marketers (naira)

X<sub>1</sub> = Blocking of local routes (Yes=1, No=0)

X<sub>2</sub> = Cost of farm produce (naira)

X<sub>3</sub> = Restrictions on market places (Yes=1, No=0)

X<sub>4</sub> = Low participation on weekly contribution (Adashi) (Yes=1, No=0)

X<sub>5</sub> = Restriction on inter-market (Yes=1, No=0)

X<sub>6</sub> = High risk of theft on yam tubers (Yes=0, No=0)

X<sub>7</sub> = Chasing of the yam marketers out of their market square (Yes=1, No=0)

X<sub>8</sub> = Killing and kidnapping of the yam marketers (Yes=1, No=0)

X<sub>9</sub> = Burning and raiding of the yam tubers ban (Yes=1, No=0)

b<sub>1</sub> – b<sub>9</sub> = Regression coefficient

Objective III was achieved using livelihoods status index. The livelihood indicators used for determining were (increase procurement of food items, improved expenditure for non-food item, increase household assets, increase in procurement of yam tuber, improved expenditure for non-processing activities, improved expenditure for off-farm activities, increase livestock assets,

improve livelihood expenditure, improve expenditure on cultural/ceremonies, improve settlement on hospital bills and ease of sponsoring wards to home lessons). The livelihood indicator was calculator in the equation below:

$$LSI = \frac{\text{Number of livelihood benefited by ith respondent}}{\text{Total number of livelihood benefits}}$$

Y=livelihood status index (LSI)

The categorization is stated below:  $\leq 0.25$  = very low livelihood, 0.26-0.49 = low livelihood, 0.50-0.75 = moderate livelihood  $> 0.75$  = high livelihood. Constraints faced by yam marketers during banditry activities was measured using 3 points likert scale of very severe=3, severe=2, not severe=1. These were added up 3+2+1 and divided by 3 to achieve a mean value of 2.0. The decision rule is any mean value  $\geq 2.0$  is termed severe while  $< 2$  is not severe

## RESULTS AND DISCUSSIONS

### Socio-economic characteristics of respondents

Table 2 revealed that 59.4% of the respondents were males while 40.6% were females. This shows that male dominated yam marketers in the study area. This was due to the fact that male control decision in term of income in yam marketing than the female counterpart in the study area, this could also predispose them to banditry that will have negative effect on their livelihood. This finding agreed with Adewumi and Fabiyi (2019) who reported that male are dominance in yam marketing in Northern part of Nigeria. Table 2 also indicated that 62.4% of the respondents had age range of between 31- 40, while, 17.3% of the respondents had age range of between 41-50 years. The mean age of the respondents was 42 years, implying an active and productive age in yam marketing. This could be disadvantages because young and productive marketers could suffer more from banditry than other category of marketers. Tables 2 further revealed that majority (66.5%) of the respondents were married while 24.9% were single. However, married yam marketers could suffer greatly from banditry due to their family size. Table 2 also revealed that 42.1% of the respondents had non-formal education while 9.1% had tertiary education. This result revealed a lower preponderance of the educated respondents has negative effect on marketing of yam and also influence marketers' readiness to tackle menace of

banditry in the study area. The implication of this is that education is expected to provide a platform for easy access to information about banditry affecting yam marketers in the study area. This finding is in consonance with that of Saleh (2015) who reported that inadequate literacy level was a major factor responsible for banditry in Northern parts of Nigeria. Further to Table 2, 79.7% of the respondents had household size of between 6-8 persons while 9.6% had household size of between 9-11 persons. This implies that the availability of family labour thereby reducing cost of hiring labour that could negatively affect livelihoods of the respondents in the study area.

### **Effect of banditry on income of yam marketers**

The result of the regression model showing the effect of banditry on income of yam marketers in the study area is presented in Table 3. The result of the multiple regression analysis showed  $R^2$  value of 0.51 which implies that 51% variation of effects of banditry on income of yam marketers in the study area was explained by the independent variables included in the model. Four functional forms (linear, exponential, double log and semi log) were tried. Linear function gave the best fit. The coefficient of blocking of local trade routes (51231.01) was negatively significant at 5% level of probability, implying that lack of access to markets routes due to banditry is expected to reduce the income of yam marketers thereby affecting the means of their livelihood. This finding agree with (Ahmad, 2020) who reported that blocking of local trade routes due to banditry activities posed negative effect on income and livelihoods of yam marketers. The coefficient of low participation on weekly contribution (Adashi) (1.9823.93) was negatively significant at 10% level of probability. This suggests that lack of access to weekly contributions possess a negative threat to livelihood of yam marketers in the study area, and this is expected to have negative effects on their income. This result is in consonance with (Adewale, 2019) who agreed that lack of access to contribution in any agricultural enterprise will affect farmer's productivity and income. The coefficient of high risk of theft on yam tubers (-34400.83) was negatively significant at 5% level of probability, suggesting that increased in theft would have negative effects on yam marketers livelihood. Also, the coefficient of killing and kidnapping of the yam marketers (36420.89) was positively significant at 5% level of probability. This implies that increase in killing and kidnapping of yam marketers will reduce the patronage of yam consumers both within and outside thereby reducing yam marketers' income. The coefficient of burning and raiding of the yam tubers silos (-85776.81) was negatively

significant at 5% probability level. This denotes that increase activities of banditry could result to food insecurity which negatively affects the livelihood. This study concurs with (Mohammed, 2019) who reported that seasonal scarcity of agricultural products without alternative to other means of agricultural enterprises possess a threat to food security.

### **Livelihood status of yam marketers**

Table 4 showed the distribution of respondents according to livelihood status of yam marketers' in the study area. The finding shows that 84.8% of the respondents are of very low livelihood status, while 6.1% of respondents had high livelihood status. This finding implies that majority of the respondents in the study area were of very low livelihood status. This may be due to banditry activities which restrict yam marketers from utilizing the period for showcasing and marketing of their yam products which at the same time affect their income. This result is in consonance with the findings of Ajayi and Taiwo (2019) who revealed that majorities of agricultural enterprises in North East of Nigeria had low livelihood due to restriction during banditry activities.

### **Livelihood indicators of yam marketers**

Table 5 revealed that 17.7% and 16.8% of the respondents had improved expenditure for non-food and increase improvement in procurement of food items respectively in the study area. Similarly, 9.3% and 7.0% of yam marketers had increase in the improved expenditure for off-farm activities and improve livelihood expenditure respectively. Table 5 further revealed that 8.4% and 7.1% of the respondents reported increase in procurement of yam tuber and improve settlement on hospital bills respectively in the study area. About 6.3% of yam marketers recorded increase in household assets because of incessant bandits attack. Also, 4.4% and 3.9% reported improve expenditure on cultural/ceremonies and ease of sponsoring wards to home lessons respectively. This finding showed that yam marketers recorded significant decrease in all the livelihood indicators as a result of banditry, implying that activities of bandits are well pronounced and has negatively affected the livelihood. This finding is related finding by Rhett (2019) who stressed that the well-being of rural farmers improved if there is full access and no restriction to agricultural activities. This study contradicts Mohammed *et al.* (2019) who reported improved in livelihood activities among rural farming populace in Niger State of Nigeria.



### **Constraints faced by yam marketers during banditry activities**

Table 6 showed that the respondents in the study area recorded severity in the constraints faced in yam marketing. Displacement of yam marketers from their native markets to nearby markets ( $x=2.42$ ) and rising of the price of yam tuber ( $x=2.20$ ) ranked 1<sup>st</sup> and 2<sup>nd</sup> respectively. This implies that displacement of yam marketers from their native markets was the major constraints faced during the banditry activities by yam marketers. This finding is in line with Isah (2019) who reported that displacement of farmers from their native markets during banditry activities in the North East of Nigeria affect the income and livelihood of rural dwellers. Other severe constraints showed that burning of resident houses, schools, financial and health institutions, decrease in the income of yam marketers ( $x=2.13$ ) and burning of yam barn ( $x=2.11$ ) ranked 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> respectively. The result implies that effects of banditry have direct impact on the decrease of income of respondents in the study area. This result concurs with the findings of Aremu and John (2020) who reported that banditry activities had negative impact on the income and livelihood of the rural farmers in Nigeria.

### **CONCLUSION**

It can be concluded that majority were in their active productive ages with no formal education. The coefficient of low participation on weekly contribution, cost of farm produce, killing and kidnapping of marketers and burning and raiding of the yam tubers ban had significant effect on the income of yam marketers. The livelihood status of the majority of the respondents' was very low livelihoods status. Displacement of yam marketers from their native markets and rising of the price of yam were the major constraints faced by yam marketers in the study area. It was recommended yam marketers should diversify into other income generating activities in order to improve their livelihood status; government should collaborate with village heads for provision of security for yam marketers in the study area. Lastly, yam marketers should be sensitized by extension agents and other learners marketers on the roles formal education could play towards the improvement of their livelihood.

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## APPENDICES

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

| Villages | Sample frame | Sample size (10%) |
|----------|--------------|-------------------|
| Kuta     | 400          | 40                |
| Godora   | 354          | 35                |
| Zumba    | 282          | 28                |
| Kukoki   | 312          | 31                |
| Agwaja   | 422          | 42                |
| Erena    | 211          | 21                |
| Total    | 1981         | 197               |

**Sources: Field survey, 2020**

**Table 2: Socio-economic Characteristic of the Respondents (n=197)**

| <b>Variables</b>              | <b>Frequency</b> | <b>Percentages</b> |
|-------------------------------|------------------|--------------------|
| <b>Sex</b>                    |                  |                    |
| Male                          | 117              | 59.4               |
| Female                        | 80               | 40.6               |
| <b>Age</b>                    |                  |                    |
| 21-30                         | 21               | 10.7               |
| 31-40                         | 123              | 62.4               |
| 41-50                         | 34               | 17.3               |
| 51- 60                        | 19               | 9.6                |
| Mean                          | 42,5             |                    |
| <b>Marital status</b>         |                  |                    |
| Married                       | 131              | 66.5               |
| Single                        | 49               | 24.9               |
| Widow                         | 17               | 8.6                |
| <b>Educational attainment</b> |                  |                    |
| Non formal education          | 83               | 42.1               |
| Quranic education             | 41               | 20.8               |
| Adult education               | 26               | 13.2               |
| Secondary                     | 29               | 14.7               |
| Tertiary                      | 18               | 9.1                |
| <b>Household size</b>         |                  |                    |
| 3-5                           | 17               | 8.6                |
| 6-8                           | 157              | 79.7               |
| 9-11                          | 19               | 9.6                |
| >11                           | 4                | 2.1                |
| <b>Year of experience</b>     |                  |                    |
| 1-10                          | 149              | 75.6               |
| 11-20                         | 194              | 98.5               |
| 21-30                         | 45               | 22.9               |

Sources: Field survey, 2020

**Table 3: Perceived effect of bandits on income of yam marketers (n=197)**

| Perceived effects                                       | Linear      |         | Semi-log    |          | Double log  |          | Exponential |         |
|---|-------------|---------|-------------|----------|-------------|----------|-------------|---------|
|   | Coefficient | t-value | Coefficient | t-value  | Coefficient | t-value  | Coefficient | t-value |
| Blocking of local trade routes                          | 51231.01    | -2.50** | -112213.2   | -2.21**  | -.2362132   | 1.64     | -.1223616   | -1.75** |
| High cost farm produce                                  | -83665.65   | -2.52** | -152551     | -3.23*** | -.3112464   | -2.42*** | -.2324432   | -2.13** |
| Restrictions on market places                           | -17628.06   | -0.88   | -16928.49   | -0.39    | -.0964897   | -0.67    | -.0667307   | -1.01   |
| Low participation on weekly contribution (Adashi)       | -19823.93   | -1.53*  | -52604.33   | -1.37    | -.1699358   | -1.37    | -.0703097   | -1.70*  |
| Restriction on inter-market activities                  | -23107.29   | -1.08   | -27470.4    | -0.63    | -.4275623   | -0.19    | -.0890915   | -1.63*  |
| High risk of theft on yam tubers                        | 34400.83    | 1.14    | 85432.6     | 1.59     | .4331648    | 2.50**   | .1870492    | 1.95**  |
| Chasing of the yam marketers out of their market square | -25729.68   | -0.68   | -56332.08   | -0.89    | -.2190963   | -1.03    | -.1014241   | -0.82   |
| Killing and kidnapping of the yam marketers             | 36420.89    | -2.81** | -61443.21   | 1.68     | -.5281461   | 2.76**   | -.2361461   | -2.33** |
| Burning and raiding of the yam tubers ban               | -85776.81   | -2.98** | -73210.79   | 1.57     | -.6783622   | -2.57    | -.0888443   | -2.41** |
| Constant  | 456115.2    | 4.13*** | 552756.3    | 1.55*    | 11.12364    | 11.55*** | 24.41624    | 23.54** |
| F-value   | 0.0000      |         | 0.0000      |          | 0.0001      |          | 0.0021      |         |
| R-square  | 0.3452      |         | 0.2954      |          | 0.3114      |          | 0.4321      |         |
| Adjusted R-square                                       | 0.5115      |         | 0.3634      |          | 0.3960      |          | 0.4143      |         |

Sources: Field survey, 2020

1 **Table 4: Distribution of yam marketers according to their livelihood status (n=197)**

| Livelihood status                   | Frequency | (%)    |
|-------------------------------------|-----------|--------|
| Very low livelihood ( $\leq 0.25$ ) | 167       | (84.8) |
| Low livelihood (0.26-0.49)          | 12        | (6.1)  |
| Moderate livelihood (0.50-0.75)     | 8         | (4.1)  |
| High livelihood ( $>0.75$ )         | 10        | (5.1)  |

2 **Sources: Field survey, 2020**

3

4 **Table 5: Livelihood indicators of yam marketers (n=197)**

| Livelihood   | Frequency | %    |
|--|-----------|------|
| Increase procurement of food items                 | 33        | 16.8 |
| Improved expenditure for non-food item             | 35        | 17.7 |
| Increase household assets                          | 17        | 6.3  |
| increase in procurement of yam tuber               | 23        | 8.4  |
| Improved expenditure for non-processing activities | 30        | 15.2 |
| Improved expenditure for off -farm activities      | 27        | 9.2  |
| Increase livestock assets                          | 10        | 4.3  |
| Improve livelihood expenditure                     | 19        | 7.0  |
| Improve expenditure on cultural/ceremonies         | 11        | 4.4  |
| Improve settlement on hospital bills               | 19        | 7.1  |
| Ease of sponsoring wards to home lessons           | 14        | 3.9  |

5 **Sources: Field survey, 2020**6 **Multiple Responses**7 **Figures in parenthesis are percentages**

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1 **Table 6: Constraints faced by yam marketers during banditry activities (n=197)**

| Constraints   | Very<br>Severe | Severe    | Not<br>severe | Sum | Mean<br>(x) | R               | D |
|---|----------------|-----------|---------------|-----|-------------|-----------------|---|
| Displacement of yam marketers from their native markets to nearby markets | 121 (61.4)     | 38 (19.3) | 38 (19.3)     | 477 | 2.42        | 1 <sup>st</sup> | S |
| Burning of their yam barns  | 100 (50.8)     | 19 (9.6)  | 78 (39.5)     | 416 | 2.11        | 5 <sup>th</sup> | S |
| Rising of the price of yam steed  | 108 (54.8)     | 21 (10.7) | 68 (34.5)     | 434 | 2.20        | 2 <sup>nd</sup> | S |
| Burning of resident houses, schools, financial and health institutions    | 105 (53.3)     | 26 (13.2) | 66 (33.5)     | 433 | 2.19        | 3 <sup>rd</sup> | S |
| Decrease in the income of the yam marketers                               | 102 (51.8)     | 18 (9.3)  | 77 (39.1)     | 419 | 2.13        | 4 <sup>th</sup> | S |
| Seasonal scarcity of yam steed  | 94 (47.7)      | 22 (11.6) | 80 (40.6)     | 406 | 2.06        | 6 <sup>th</sup> | S |
| Loss of life of yam marketers during banditry activities                  | 88 (44.7)      | 25 (12.7) | 84 (43.3)     | 398 | 2.02        | 7 <sup>th</sup> | S |

2 Sources: Field survey, 2020

3 Note: R=Ranks, D=Decision, S=Severe

4  $\geq 2.0$  is termed severe while  $< 2$  is not severe

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