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## PERCEPTION ABOUT EFFECTS OF SECURITY CHALLENGES FACING MAIZE FARMERS IN OKE - OGUN AREA, OYO STATE, NIGERIA

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### ABSTRACT

The study investigated maize farmers' perception about effects of security challenges in Oke - Ogun area of Oyo State, Nigeria. Data for the study were obtained through an interview schedule from 135 farmers sampled through a two-stage sampling procedure. Data were collected on socioeconomic characteristics; security challenges encountered, perception of the respondents about effects of security challenges and coping strategies employed by the respondents. Descriptive statistical tools such as frequency counts, means, and standard deviations were used to describe and summarize the data. While Chi - square and Pearson product moment correlation analyses were used to draw inferences on the hypothesis. Findings from the study revealed that more than three quarters (83.0%) were males, and the mean years of maize production was 15.8 years. Loss of community peace (80.7%), destruction of maize farm by herders (79.3%) and kidnapping of maize farmers (72.6%) were the most identified security challenges encountered. While community policing (90.4%) was their most employed coping strategy. Majority (91.1%) had unfavorable perception about security challenges encountered. Sex and religion had significant association with perception about security challenges. Age ( $r=0.628$ ), years of maize production ( $r=0.524$ ) and number of times travelled out of community ( $r=0.287$ ) had significant relationships with maize famers' perception about effects of security challenges encountered. The study concluded that the respondents had unfavourable perception towards security challenges, and they saw it as threat to maize production. Hence, the study recommends that the policy makers should adopt the coping strategies employed by the respondents such as establishment of many security checkpoints and posts to improve the security challenges. Also, public enlightenment campaign should be carried out to orientate both farmers and herders on how to tolerate one another, respect people's values, culture and traditions for peaceful co - existence to stop this impediment to agricultural production.

**Keywords:** Coping strategy, Community policing, Security challenges and Maize farmers.

### INTRODUCTION

As of today, all zones in the country are experiencing incessant attacks that often resulted into killings, kidnapping and destruction of lives and properties especially in the rural areas, where farmers reside to produce food crops. These areas have become centre of focus for seasoned bandits which have hindered food production. One of the major food crops that is adversely affected is maize that stands to be an important staple food crop in the country. Nigeria is tagged the largest maize producer accounting for 16 per cent of the continent's harvest (IITA, 2020)<sup>1</sup>. Similarly, IITA (2020)<sup>2</sup> and USAID (2019), reported that Nigeria is the largest African producer of maize with over 33 million tons, followed by South Africa, Egypt, and Ethiopia. In 2019, maize production in Nigeria was 11,000M tonnes. Despite the statistical evidence that Nigeria is famous in maize production amidst other African countries, Nigeria could not meet maize demand for its teeming population, livestock and poultry feed industries (Egwuma, Dutse, Oladimeji, Ojeleye, Ugbade and Ahmedl, 2019). Available statistics revealed that Nigeria imported about 215,000tonnes of maize as at 2016 (FAOSTAT, 2018). Knoema, (2020) also reported that maize worth of 54,685(thousand US dollars) was imported into Nigeria in 2020. Insecurity challenges among other factors could be said to have contributed to deficit in supply and demand of maize in the country. The height of security challenges in the

country is becoming worrisome than before, especially in Southwest zone where the intensity was not much initially like that of the Northern parts where it emanated. Oke – Ogun in Oyo state is a major maize producing area in the southwestern zone of the country and the area is deeply heated by these insecurity challenges.

Maize (*Zea mays*) is an important cereal crop that has great potential to improve the nation's food security situation (IFPRI, 2021). IFPRI position signifies that maize cannot be underestimated in Nigeria food system as it serves as food for mankind, feed for livestock, raw material for agro – allied industries and source of income for smallholder farmers. In spite of all its contribution to human existence, maize production is highly threatened by insecurity menace that is ravaging the country most especially the rural areas. Security challenges has become a serious problem in the country that we cannot talk of food security when life of farmers are at risk. Insecurity which is now at alarming rate than before should no longer be treated with a wave of hand, as it exposes the people in the affected areas to danger which hinders their farming activities.

Rural areas where security facilities are not always on ground has become centre of focus for the hoodlums. Oke – Ogun, an area that used to be socially, economically and environmentally friendly for farming activities has now become a battlefield where farmers are being killed indiscriminately.



Oyo State government once confirmed such incidence that some farmers lost their livelihoods to criminal trespass and damage by pastoralists (Vanguard, 2021). Similarly, Agboola (2021), reported tales of insecurity in and across Oyo State where residents no longer sleep with their two eyes closed because of unpredictable and fragile security situation from Ibarapa land to Oke - Ogun.

The actions of these herders no doubt, has resulted into farmers leaving their farming communities and their homes to save their lives and that of their family members. This observation is in line with the findings of Ilo, Jonathan-Chaver and Adamolekun (2019) that reported crop farmers to be internally displaced by destructions of the farmer's ancestral homes. The reason why herders were referred to as deadly since 2014, according to Agaptus, Olanrewaju and Ake (2019) is probably because they have access to sophisticated ammunitions which they always carry with them. The dispute is believed to have political under tone which also stirs ethnic and religion tensions. Serious security intervention need be put in place.

Provision of adequate security intervention as proactive measures should be in place to address the lingering security challenges confronting the dwellers especially maize farmers in Oke Ogun so as not to hinder maize production. In the meantime, farmers that are directly hit hard by the security challenges have their roles to play in leading the stakeholders to the path to toll while finding solutions to the problem.

It is in the light of this background that the study investigated perception of security challenges by maize farmers in Oke Ogun area Oyo State. The specific objectives of the study were to:

- i. describe the socioeconomic characteristics of maize farmers in Oke – Ogun,
- ii. ascertain the security challenges encountered in the study area;
- iii. examine the perception of the respondents about effects of security challenges encounter
- iv. identify the coping strategies employed by maize farmers on security challenges

The study hypothesized that there is no significant relationship between the socioeconomic characteristics of the respondents and their perception about effects of security challenges towards maize production.

## METHODOLOGY

The study was carried out in Oke – Ogun area of Oyo State which is located within the guinea savannah zone. The ecology of Oke ogun area of Oyo state favours commercial production of agricultural food commodities of which maize is major. Oke – Ogun has ten local government areas which include Kajola, Iseyin, Itesiwaju, Iwajowa, Saki East, Saki West, Atisbo, Orepole, Irepo and

Olorunsogo. The notable towns in Oke – Ogun includes Saki, Iseyin, Ilero Otu, Ago- Are Tede, Ago – Amodu, Sepeteri, Igboho, Ago are and Okaka, okeho, among others

A two-stage sampling procedure was used to select the respondents. At first, communities with incidence of security challenges in Oke - Ogun were purposively selected using a purposive sampling technique. These include Saki, Okeho, Igboho, Iseyin, Ilero, Ago - Are and Ago Amodu (Adewoyin, 2019). Lists of registered maize farmers from each community were collected from Oyo state Agricultural Developemt Programme Office Headquarters. From the list, twenty maize farmers were selected randomly with the use of simple random sampling technique to make a total of 140 farmers. However, 135 interview scheduled were recovered from the respondents for analysis. Maize farmers' perception about the effects of security challenges was measured by asking the respondents to respond to a list of 15 perception statements on a 5- point Likert scale from Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1). An addition of the points recorded (as awarded above) for each of the statement as aggregate or total score for a respondent. The maximum score was 75 while the minimum score was 15. Mean was obtained for each of the statement and use to rank the perception statement. The grand perception mean score (2.26) was calculated. Using equal interval classification method, the highest and lowest obtainable scores were used to group the scores into favourable and unfavourable perception. Data collected were analysed using descriptive statistics such as frequency counts, percentages, means and standard deviation were used while chi-square and PPMC were used to draw inferences on hypothesis tested.

## RESULTS AND DISCUSSION

### Socioeconomic characteristics

The data in Table 1 show that the mean age and years of formal education of maize farmers were 42.9 and 6.5 years respectively. This implies that majority of the respondents are in their active age and so possess enough strength to cope with the strenuous farming activities and to make moves to combat security challenges facing them. This is similar to the findings of Alabi *et al.* (2018) that reported 42.13 years as the mean age of maize farmers in their study. However, the mean years of formal education implies that respondents were not adequately educated and so they might likely show lukewarm disposition to security issue because the findings of Undiyaundeye and Basake (2017) submitted that educated people are more likely to understand and respond to issues (security challenges) than illiterates. The study further reveals that majority (90.4%) were married, while more than half (56.3%) were Christian and 43.7% were

Muslim, indicating that belonging to a religion affiliation, would influence their belief system that God has supernatural power to resolve every security challenge they might be facing. More than three quarters (83.0%) of the respondents were male,

which implies that male still dominate maize farming in the study area. This agrees with the findings of Adeyemo *et al.* (2017) and Adesoji *et al.* (2020) who reported that majority of the farmers in their studies were males.

**Table 1: Distribution of respondents by personal and socio-economic characteristics (N=135)**

Variables	Categories	Frequency	Percentage	Central Tendency
Age	<=30	15	11.1	42.93±10.483
	31 – 45	67	49.6	
	46 – 60	48	35.8	
	60+	5	3.7	
Sex	Male	112	83.0	83.0 ±17.0
	Female	23	17.0	
Religion	Christianity	76	56.3	56.3
	Islam	59	43.7	
Marital Status	Single	4	3.0	90.4
	Married	122	90.4	
	Divorced	3	2.2	
	Separated	3	2.2	
Ethnicity	Widow	3	2.2	67.4
	Yoruba	91	67.4	
	Hausa	12	8.9	
	Ibo	10	7.4	
	Others (Igbira and, Fulani)	22	16.3	
Years of formal education	<=6	74	54.8	6.47±4.237
	7 – 12	54	42.2	
	13+	4	3.0	
Household Size	<=5	31	23.0	5.46±3.941
	6 – 15	101	74.8	
	16+	3	2.2	
Years in maize production	<= 10	33	24.4	15.76±7.974
	11 – 20	57	42.2	
	21+	45	33.4	
Mode of production	Part time	15	11.1	11.1
	Full time	120	88.9	
Annual income	<=250,000	38	28.1	566,188.5±84,972.7
	250,001 – 750,000	85	63.0	
	750,001 – 1,250,000	6	4.4	
	1,250,001+	6	4.4	
Membership of social organizations	Yes	93	68.9	68.9
	No	42	31.1	
Position held	Ordinary member	76	56.3	56.3
	Committee member	7	5.2	
	Executive member	10	7.4	
External orientation in the last six months	Yes	119	88.1	88.1
	No	16	11.9	

**Source: field survey, 2021**

Also, majority (67.4%) were Yoruba, 8.9% were Hausa (8.9%) and few (7.4%) were Ibo, this implies that maize farmers in Oke- Ogun were predominantly yorubas. The mean household size of the respondents was 5.46± 3.941 person. This is an indication that the respondents do not have a large household size to support them in their farm work. The implication is that they have to depend on farm

labour when they need helping hand. More than half (88.9%) of the respondents practice maize farming on full-time, while the mean years of experience in maize production was 15.76 years. This indicates that respondents had enough experience and could handle maize production skillfully. The mean annual income of the maize farmers was N566188.5, which translated to N 47,182.18 monthly. This suggests



that maize production is a lucrative and sustainable livelihood activity in the study area, therefore efforts of relevant stakeholders should be geared towards ensuring peaceful co-existence of various ethnic groups in the study area. Most of the respondents (68.9%) belonged to social organization while 31.1% did not. This corroborates the findings of Adesoji *et al*, (2020) that majority of farmers belonged to social organizations to tap from the benefits associated with participation in social organizations.

#### Security challenges encountered in the study area

Table 2 reveals that majority (80.7%) of the maize farmers sampled indicates that loss of

community peace, destruction of maize farm by herders (79.3%), kidnapping of maize farmers on the farm (72.6%), maize theft (64.4%), and molestation of women farmers or wives by cattle herders (48.9%) were the major security challenges encountered by the respondents in the study area. Implicitly, the community where such problems occurred are always in chaos with great economic loss due to destruction of maize farms and kidnapping of farmers as reported by Alao *et al*, (2020); Obaniyi *et al*, (2020); Alabi and Famakinwa (2017). Serious security intervention should be put in place to curb future occurrence of these challenges.

**Table 2: Percentage distribution of respondents by security challenges in the area(n=135)**

Security challenges	Frequency	Percentage
Maize theft	87	64.4
Destruction of maize farms by herders	107	79.3
Kidnapping of maize farmers on the farm	98	72.6
Loss of properties / houses by farmers	60	44.4
Killing of maize farmers by herders	31	23.0
Molestation of women farmers or wives	66	48.9
Loss of community peace	109	80.7

Source: Field Survey, 2021

#### Perception about effects of security challenges by maize farmers

The results in Table 3 indicate that 62.2 percent of the respondents strongly agreed that Maize production is no longer rewarding due to insecurity while 7.6 percent strongly disagreed with

this statement. About 56.3 percent of the respondents strongly agreed that security challenges have resulted into loss of community peace while 9.6 percent disagreed that security challenge resulted to loss of community peace.

**Table 3: Perception about effects of security challenges by maize farmers**

Perception statements	SA (%)	A (%)	U (%)	D (%)	DA (%)
Maize production is no longer rewarding due to insecurity	62.2	8.4	3.0	17.0	7.4
Overcoming security challenges is beyond farmers' capability	43.7	45.9	5.2	5.2	0.0
Government policy on ESC to farmers is not favourable	23.7	54.1	10.4	8.1	7.0
All the emergent security challenges will soon fade away	19.7	17.0	20.7	45.2	5.2
Quitting maize farming is the only way out for farmers	13.3	11.8	7.2	45.7	5.2
Maize importation is not the answer to shortage of maize production	35.5	43.0	21.5	0.0	0.0
No matter the level of insecurity, I will continue to plant maize	27.4	25.9	2.2	40.0	4.4
Cost of production is too high to break even due to security challenges	25.2	51.9	8.1	14.1	7.0
Farmers are on their toes to resist security challenges	16.3	33.3	20.7	20.0	9.6
We will not allow security challenges to render us jobless	36.3	45.2	3.0	10.4	5.2
Maize production is capable of securing food for man	47.4	39.3	5.2	5.9	2.2
Livestock and poultry feed sustainability is dependent on maize	51.9	25.2	8.1	14.1	7.0
Loss of community peace	56.3	23.7	10.4	9.6	0.0
Tightening security by farmers the only solution to present challenges	40.0	28.1	22.2	9.6	0.0
Community policing is a way out of this security challenges	43.7	20.0	19.3	3.0	14.1

Source: Field survey, 2021

Also, 51.9 percent strongly agreed that livestock and poultry feed sustainability is dependent on maize whereas 7.6 percent strongly

disagreed. 43. 7 percent strongly agreed that community policing is a way out of this security challenges while 14,1 percent strongly disagreed

that community policing is a way out of this security challenges. Besides, 43.7 percent strongly agreed that overcoming security challenges is beyond farmers' capability while 8.1 percent disagreed with this statement.

#### Categorization of perception

The data in Table 4 shows level of perception of maize farmers on effects of security challenges in the study area. The results reveal that majority (91.1%) of the respondents had

unfavourable disposition while only 8.9% had favourable disposition towards effects of security challenges. The result indicates that most of the farmers perceived security challenges as a hindrance to maize production in their area. Therefore, efforts need be put in place to improve security situation so that respondents can have rest of mind to go about their livelihood activities without any molestation or intimidation which will eventually enhance their production activities and ensure food security.

**Table 4: Categorization of perception of effects security challenges by maize farmers'**

Level	Perception Score	Frequency	Percentage
Unfavorable	<=70.00	123	91.1
Favorable	71.00 +	12	8.9
Total		135	100.0

Source: Field survey, 2021

#### Coping strategies employed by maize farmers on security challenges

Table 5 reveals that the coping strategies that were mostly employed by the respondents are practicing community policing (90.4%), establishment of security post in strategic places around community (88.9%), praying for security challenges to end

((88.1%), observing vigilance around maize farm (83.0%) and working closely with government security agencies (72.6%). The implication of this analysis is that if the respondents are backed up with the coping strategies, they employed by other stakeholders' security challenges in their domains will be checked.

**Table 5: Distribution of respondents by the coping strategies employed on security challenges**

Coping Strategies	Frequency	Percentage
Using media services as source of information	72	53.3
Working closely with government security agencies	98	72.6
Observing vigilance around maize farm	112	83.0
Seek permission to carry arm for self-defence	73	54.1
Practicing community policing	122	90.4
Praying for security challenges to end	119	88.1
Establishment of security post around community	120	88.9
Seeking litigation against the intruders	88	65.2

Source: Field survey, 2021

#### Relationship between selected farmers' socio-economic characteristics and perception about effects of security challenges

Table 6 shows that respondents' sex and religion ( $\chi^2=10.412$  and  $\chi^2= 4.168$ ) were

significantly associated with their perception about effects of security challenges. The implication of this result is that respondents' sex and religion influenced their opinion about the effects of security challenges,

**Table 6: Chi-square test between personal characteristics and perception about effects of security challenges by maize farmers**

Variables	$\chi^2$	DF	P-value
Sex	10.412*	1	0.001
Religion	4.168*	1	0.031
Marital Status	9.087	4	0.059

\*Significant at  $p<0.05$

#### Correlation test between selected farmers' socio-economic characteristics and perception about effects of security challenges

The results on the relationship of selected farmers' socio-economic characteristics' variables and their perception about effects of security challenges in Table 7 shows that age ( $r=0.268$ ),

years in maize production ( $r=0.524$ ) and number of times the respondents travelled out of their community ( $r=0.287$ ) had positive and significant relationship with perception challenges by maize farmers at  $p<0.01$ level of significance. This implies that the more the age of the respondents the more they can perceive any security problem around them. The same trend goes with years in maize



production and number of times travelled out of the community.

**Table 7: Correlation analysis showing relationship between selected socio-economic characteristics of respondents and perception about effects of security challenges (n=135)**

Socioeconomic correlation	Characteristics coefficient (r)	p-value
Age	0.268**	0.002
Annual income	0.102	0.241
Years of formal education	0.254	0.090
Years in maize production	0.524**	0.000
Number of times travelled	0.287**	0.001

\*\*Significant at  $p<0.01$

## CONCLUSION AND RECOMMENDATION

Findings from the study reveals that the respondents were predominantly Yoruba, male, married and middle-aged farmers. Major security challenges encountered by maize farmers are loss of community peace, destruction of maize farm and kidnapping. While coping strategies employed are practicing community policing, establishment of security post in strategic places around, praying for security challenges to end, observing vigilance around maize farm and working closely with government security agencies. Also, maize farmers had unfavourable perception towards effects of security challenges encountered. The study recommends that the policy makers and other relevant stakeholders should adopt the coping strategies employed by the respondents and such as creation of more checkpoints and security posts and also public enlightenment campaign should be carried out to orientate both farmers and herders on how to tolerate one another, respect people's values, culture and traditions so as to live peacefully with each other in order to curb security challenges in Oke-Ogun to stop this impediment to agricultural production.

## REFERENCES

Adesoji, S. A, Fabiyi E. O. and Famakinwa, M. (2020): Adoption of Technologies Introduced by Community Based Agricultural Development Project among Farmers in Kwara State, Nigeria *Agricultura Tropica et subtropica* 53(3)127-135.

Adewoyin S. Ademola (2019): Porous Borders, small arms proliferation and insecurity in Oke-Ogun area of Oyo state, Nigeria. *International Journal of Research and innovation in social Science (URISS)* Vol., III, Issue I pp 84-89

Adeyemo, R. A., Oladoja, A. M, Famakinwa, M. and Alabi D. L (2017): Assessment of Utilisation of Soil Management Practices among Arable Crop Farmers in Ogun State: Implication for Sustainable Agriculture in Nigeria. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development* 17(3): 37-46

Agaptus N., John, S. Olanrewaju. and Modupe, B. A. (2019): National Insecurity and the Challenges of Food Security In Nigeria. *Academic Journal of Interdisciplinary Studies Vol 8 No 4, pp 9 - 20*

Agboola, B. (2021): Oyo and Unending Security Challenges. *Blueprint Newspaper Online, assessed July, 25<sup>th</sup> 2021 at 2:35pm*

Egwuma, H., Dutse, F., Oladimeji, Y. U., Ojeleye, O. A., Ugbabe, O. O. and Ahmed, M. A. (2019): Demand and Supply Estimation of Maize In Nigeria. *Journal of Agriculture and Agricultural Technology*, Vol. 5, No. 2 pp 12- 20

Alabi, D. L. Akintola, O. M. and Famakinwa, M. (2018): Perception of processors towards utilization of maize value addition techniques: Implications for rural entrepreneurship development -- A study in Nigeria. *The Journal of Agricultural Science*, 13(2):142-152

Alabi, D. L. and Famakinwa, M. (2017): Effects of Community Conflicts on Rural economic activities in Osun State, Nigeria: Implications for Sustainable Development. *Ife Journal of Agriculture*, 29(1): 63-73

Alao, O. T. Ayinde, J. O, Ogunjimi, S. I. and Adebiyi, A. A. (2019): Perception of arable crop farmers on the causes and effects of farmers-herdsman conflicts in Ede, *Uniosun Journal of Agriculture and Renewable Resources*, 3:30-40

Agboola, B. (2021): Oyo and Unending Security Challenges. *Blueprint Newspaper Online, Assessed July, 25<sup>th</sup> 2021 at 2:35pm*

Egwuma, H., Dutse, F., Oladimeji, Y. U., Ojeleye, O. A., Ugbabe, O. O. and Ahmed, M. A. (2019): Demand and Supply Estimation of Maize In Nigeria. *Journal of Agriculture and Agricultural Technology*, Vol. 5, No. 2 pp 12- 20

FAOSTAT (2018). Food and Agriculture Organization of the United Nations. Available online at: <http://faostat.fao.org/>

Ilo, U J., Jonathan-Chaver I and Adamolekun, Y. (2019): The Deadliest Conflict You've Never Had Of: Nigerias' Cattle Herders Wage A Resource War. *Foreign Affairs*, retrieved from <https://www.foreignaffairs.com>

International Food Policy Research Institute (IFPRI, 2021): Socio – Economic Drivers of Food Security among Maize Farmers in Nigeria. Retrieved online @ <https://nssp.ifpri.info>

International Institute of Tropical Agriculture (IITA, 2020)<sup>1</sup>: IITA –BIP sets record for maize production per hectare in Nigeria. Retrieved online <https://www.iitabip.org/>

International Institute of Tropical Agriculture (IITA, 2020)<sup>2</sup>: Maize (Zea Mays) Retrieved online <https://www.iita.org/>

Knoema (2020): The Imports of Maize from Nigeria. accessed online,@ [https://knoema.com>data>Nigeria](https://knoema.com)

Obaniyi, K. S, Kolawole. A, Ajala A, Adeyolu A and Oguntade A (2020): Assessment of crop farmers coping strategies to pastoralism/nomad activities in Nigeria. *Open Agriculture* 5: 219–226.

Undiyaundeye, F. A. and Basake, J.A. (2017): Management strategies in resolving cattle's herdsman conflict with their host communities in Nigeria. *Journal of African Interdisciplinary Studies*: 1, 2, 46-59.

United States Agency for International Development (USAID, 2019): Improved Extension Capacity in Smallholders' Productivity in Nigeria: Findings from an Ex-Post Study of Market II. Retrieved online @ <https://www.chemonics.com>

Vanguard Newspaper Online (2021): Makinde Reveals Measures to Tackle Insecurity In Ibarapa, Oke – Ogun. *Viewed online on 15<sup>th</sup> July, 2021 at 2:30pm*