



Original Research Article

Impact of Security Challenges Affecting Farmers Along Kaduna-Abuja Express Way and Birnin Gwari Road in Kaduna State, Nigeria

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ABSTRACT

A recently identified challenge farmers are faced with is insecurity in the form of kidnapping and banditry, and therefore, access to farm land for cultivation due to fear of either being kidnapped or threat to life is a misfortune to national food supply. It is against this background that the present study was conducted by identifying 15 abandoned poultry farms (capacity of 5000 - 20000 bird) along Kaduna-Abuja Express way and 15 abandoned crop farms (size ranging between 5 – 10 ha) along Birnin Gwari Road. Structured questionnaires were administered to farmers through purposive sampling techniques, and descriptive statistic and charts were used to present the results of the data obtained. Results showed a loss in capacity of poultry farms of between 37% to 100% and capacity reduced to (1000 – 5000 birds) along Kaduna-Abuja Express way. The average loss in poultry production capacity was 85% and the capacity under production is 15%. It was also found out that the loss in crop farm size was between (2 – 7 ha). The average loss in farm size i.e. crop farming area was 64% and the farm size used for crop farming is 36% for the past two years for fear of being kidnapped or killed by armed bandits. It is therefore recommended that the government should pursue this issue of insecurity bedeviling the nation with utmost sincerity to bring it to an end, in order to preserve a consistent and non-disruptive national food supply chain.

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1. INTRODUCTION

In Nigeria, food security is considered to be a challenge as Nigerians are food unsecured; although the nation is blessed with favourable climatic conditions that favours crop growth and animal rearing (Adebayo and Ojo, 2012; Nwozor *et al.*, 2019). Despite the immense potential in Nigeria's agricultural sector, food insecurity has continued to prevail due to several factors ranging from lack of access to credit as well as

quality inputs, weak implementation of policies, poor access markets, and natural insecurity (Downie, 2017; Matemilola, 2017). Insecurity was identified as a major threat to the agricultural sector ranging from the activities of Boko Haram to insurgency and herdsmen crisis (Eme *et al.*, 2014; Kimenyi *et al.*, 2014). The aforementioned activities have greatly affected agricultural activities in several parts of the country such as the North Eastern Nigeria with high level of grain production and the middle belt region where tubers are produced in large quantity. In these areas, farming activities have been affected by way of displacement of farmers from their original farming communities to internally displaced persons (IDPs) camps, abandoning farming activities for many years (Okoro, 2018).

Recently, the issue of banditry and kidnapping is posing national security threat in Nigeria as cases of kidnapping have been reported all over the country with farming activities being greatly affected. Farmers no longer find it easy farming distance away from their homes for fear of being kidnapped in their farms against payment of ransom or being killed if payment is not fulfilled and the trauma which victims go through after such ugly incidence. This has affected food production over the years and calling for a solution which will help sustain domestic food supply. The world's population is expected to increase by 2 billion persons in the next 30 years, from 7.7 billion currently to 9.7 billion in 2050 and could peak at nearly 11 billion around 2100. This implies that in Nigeria, food security is essential to meet the demand of the project population increase (FAO, 2017).

This paper therefore focuses on reducing security challenges farmers are faced with due to kidnapping, farmer/herdsmen crisis and to improve production as a measure for combating food insecurity in the future, this work employed the use of case studies of abandoned farms in two local government areas (Kaduna-Abuja express way, Kaduna South and Birni Gwari Road, Birni Gawari) Kaduna State, Nigeria.

2. METHODOLOGY

2.1. Study Area

The first part of the study area is Chikun Local Government Area (LGA) in Kaduna State which lies within the Guinea Savanna ecological zone. Specifically, two wards, Kakau and Gwagwada, along the Kaduna-Abuja Expressway axis, were selected due to easy access, availability of various sizes of farmland and the observed dynamic agricultural practices (Figure 1). The LGA is located within the area bounded by Longitude 7° 10' 16" E and 7° 35' 30" E and Latitude 11° 10' 59" N and 11° 25' 44" N. The area has an average elevation of 625 m above mean sea level with a surface area of approximately 4690.1 km². It constitutes a part of the Kaduna Metropolis, which makes the study area to be partly urban, peri-urban and rural in nature, and one subjected to dynamic pressure on its natural resources.

The second part of the study was carried out in Birnin Gwari Local Government Area of Kaduna State. Birnin Gwari area is located along Kaduna- Lagos express way at about 125 km from Kaduna (Figure 2). It covers an area of 6,185 km². Birnin Gwari town is the Local Government Area. It is located at 12° 20' North and Longitude 9° 10' East of Greenwich (Alabi *et al.*, 2013). It lies in the western part of Kaduna State. It shares boundary with Zamfara State to the North, Kogo forest reserve of Kastina State to the east and north east of Giwa Local Government Area of Kaduna and to the West Niger State (Kamuku Park Report, 2010). The population of Birnin Gwari area according to the 2006 national population commission and counting census revealed that the study area has a total population of 252,363 persons. The study area has sixteen districts namely Birnin Gwari central, Gayam, Bugai, Kutemeshi, Tabanni, Dogon Daa, Kakaangi, Randagi, Kzege, Kungi, Maganda, Saulawa, Saminaka, Gwaska, Bagoma and Kuyello. The study area has four major ethnic groups. The crops grown in the area are maize, rice, wheat, groundnut and guinea corn (Alabi *et al.*, 2013).



Figure 1: The Kaduna-Abuja Express way showing the farming areas by the sides of the road

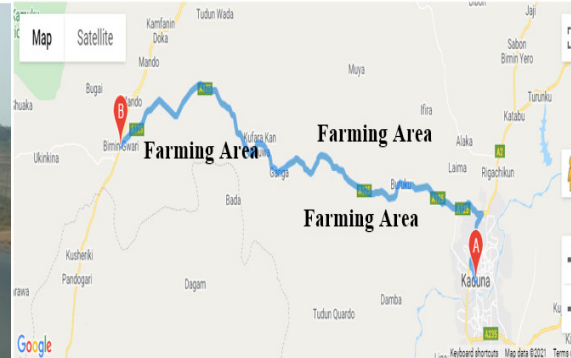


Figure 2: Road Map of Kaduna – Birnin Gwari, showing farming areas along the express way

2.2. Sampling and Collection of Data

The purposive sampling techniques (non-probability) was employed in this study by ensuring that only the farmers that met the required purpose, attributes or characteristics were selected (Black, 2011; Crosswell and Plano, 2011; Bernard, 2017). In this study, 30 structured questionnaires were administered to 30 farms that were purposively identified, composed of 15 crop farms with sizes ranging between 5ha to 10ha and 15 poultry farms with capacity ranging between 2000 and 15,000 birds along Birnin Gwari Road and Kaduna-Abuja express way. The structured questionnaires were used to get primary data from the farm owners and were analyzed using Microsoft Excel 2010 and simple descriptive statistics and charts were subsequently plotted.

3. RESULTS AND DISCUSSION

Table 1 provides information about the poultry farm capacity before and during kidnapping/banditry activities along the Kaduna-Abuja express way. These farms produce a range of poultry product i.e. chicken meat and eggs and they provide employment to both poultry farm attendants and the road side marketers among others. The Table also shows the percentage loss of the production capacity in the farms along the express way. The full capacity of the farms ranged between 5000-20000 birds but has dropped between 1000-5000 birds. The percentage loss in capacity ranged between 37% and 100%, showing that in some farms the willingness to operate at full capacity is no longer in place while for others their farms have been completely abandoned due to the unbearable security challenges faced by farmers in the area. In poultry farm 1 (PF1) no production is taking place, the same goes for PF2, in PF3 production dropped by 15,000, PF4 5000, PF5 12000, PF6 3000, PF7 13000, PF8 10000, PF9 12000, PF10 3000, PF11 6000, PF12 9000, PF13 16500, PF14 7000 and PF15 11000. Table 1 also shows the percentage loss in poultry production due to the activities of kidnapers and bandits in the farms. The lowest percentage loss was 37% and the highest was 100%. About 53% of the farms have completely stopped poultry production. This implies that the production capacity loss in these farms is 100% i.e., the farms have been abandoned. The remaining 47% are producing at a very low capacity in order to minimize their financial investment risk in the poultry production business. Among these farmers, there has been a total loss of production to the tune of 140,500 birds.

Figure 3 shows the average percentage loss in production capacity poultry per farmer in the area. About 85% percent the capacity of poultry production is lost during this period to the activities of kidnapper/bandits. This is not a favorable trend for a nation with high rate of population growth which requires a corresponding increase in poultry production in order to meet the demand of the growing population and not in the opposite direction. Table 2 provides information on the size of crop farm cultivated before and during kidnapping/banditry activities along Birnin Gwari Road, Kaduna. Grains such as maize, rice, millet, guinea corn and legumes such as beans, soybean, groundnut etc. were cultivated in these farms. The table also shows the percentage loss of crop farm size in farms along the road. The size of the farms considered range between

5 ha–10 ha but presently, the size being cultivated by the same owner in the same location suddenly dropped 2 ha–7 ha. The percentage loss ranged between 0% and 100%, in between are 57.1%, 66.7%, 70%, 75% and 88.6%. These figures show that in some farms is at zero level while for others, less commitment and abandonment to the farm land is the case due to activities of kidnappers/bandits.

Table 1: Capacity of poultry farm production along Kaduna-Abuja Express Way (Field survey, 2021)

Poultry production capacity	Farms														
	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15
Poultry production capacity before kidnapping/banditry activities	7000	11000	20000	6000	12000	5000	18000	10000	12000	8000	6000	9000	19000	7000	16000
Poultry production capacity during kidnapping/banditry activities	0	0	5000	1000	0	2000	5000	0	0	5000	0	0	2500	0	5000
% loss in poultry farm capacity	100	100	66.7	83.3	100	66	72.2	100	100	37	100	100	86.8	100	68.8

Note: PF= poultry farm

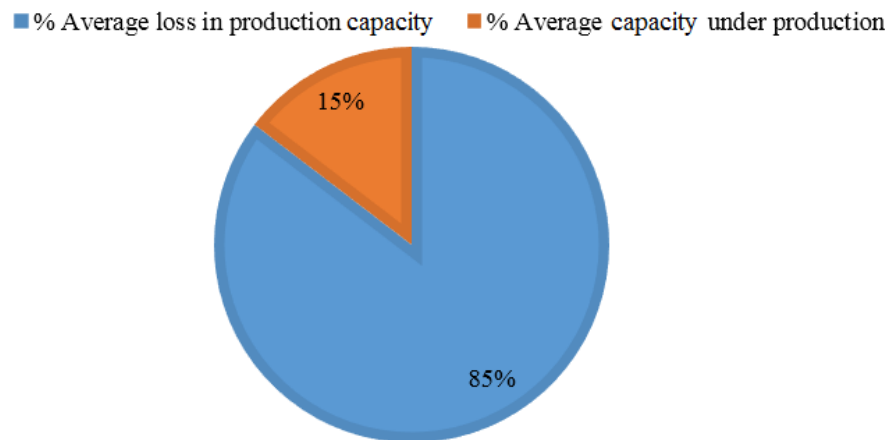


Figure 3: Average loss in poultry production capacity due to activities of kidnappers and bandits

Table 2 also shows the percentage loss in land size used for cultivation due to the activities of kidnappers/bandits in the farms. The loss ranged between 0% and 100%. About 26% of the farms sizes are fully under cultivation, 40% of the farms irrespective of their sizes have been completely abandoned with no cultivation activities ongoing for the past two year for fear of being kidnapped or killed by armed bandits. For the remaining 33% of farms the percentages not cultivated are 57%, 75%, 70% and 66% respectively. A total area of land not cultivated due to insecurity by crop farmers in the area is about 56.2ha. This again, poses a great threat to food supply if it persists longer and alternative technological solution not provided to secure the safety of our farmers.

Figure 4 shows the average percentage loss in crop farming area. About 64% percent of the area of land size usually cultivated by farmers along the Birnin Gwari road has not been under cultivation. This again, is not a favorable trend for a nation with high rate of population growth which requires a corresponding increase in farm crop production in other to meet the demand of the growing population based on FMARD (2016) estimates as shown in Figure 5.

Table 2: Cultivated crop farm size along Birnin Gwari Express Way (Field survey, 2021)

Crop farm size	Farms														
	CF1	CF2	CF3	CF4	CF5	CF6	CF7	CF8	CF9	CF10	CF11	CF12	CF13	CF14	CF15
Crop farm size before kidnapping/banditry activities	7	5	4	8	7	10	7	4	4	6	3	2	5	6	7
Crop farm size during kidnapping/banditry activities	3	0	0	2	0.8	3	7	0	0	6	3	2	0	2	0
% loss in crop farm size	57.1	100.0	100.0	75.0	88.6	70.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	66.7	100.0

Note: CF= crop farm

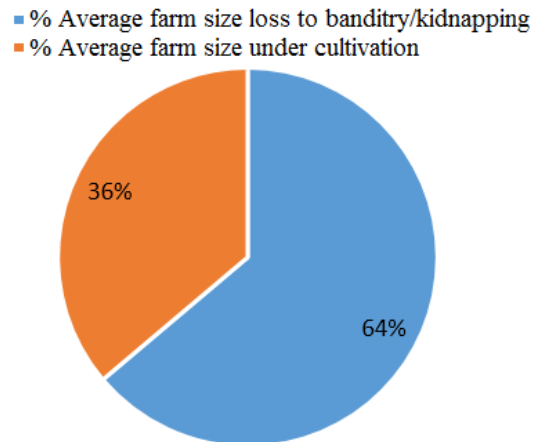


Figure 4: Average land area not cultivated by farmers due to kidnapping/banditry

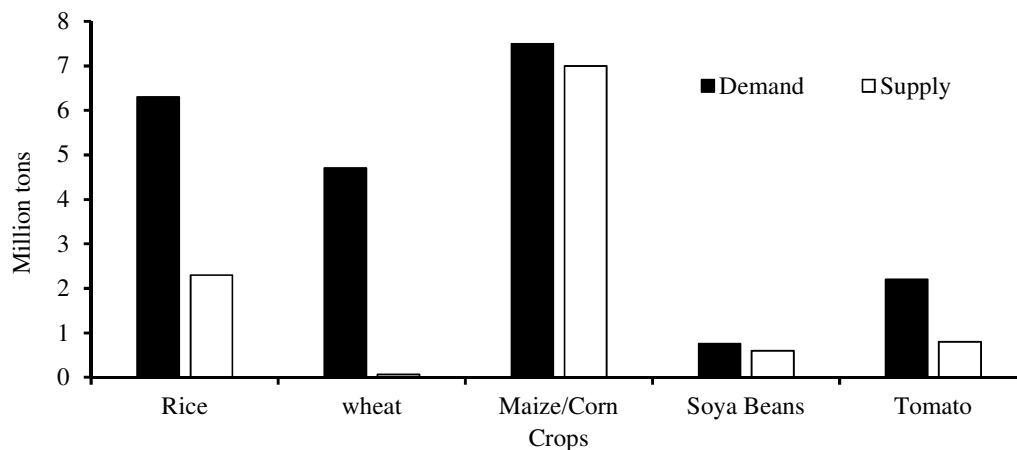


Figure 5: Gaps in demand and supply of selected staple crops (Adapted from FMARD, 2016)

4. CONCLUSION

The study focused on the current security challenge (kidnapping and banditry) farmers are faced with. Purposive sampling method was used to identify 15 crop farmers and 15 poultry farmer in areas with high prevalence of kidnapping and banditry attacks on farming communities in Kaduna State. The study revealed

that poultry production along Kaduna-Abuja express way has dropped by 85% and cultivated land along the Birnin Gwari road has also reduced by 64% as a result of fear of being kidnapped by kidnappers or killed by bandits. Therefore, the government needs to step in to find a lasting solution to this menace of banditry and kidnappings in order to maintain the farming population for increased and sustained productivity of farm produce.

5. ACKNOWLEDGEMENT

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6. CONFLICT OF INTEREST

There is no conflict of interest associated with this work.

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