



IMPACTS OF INSURGENCY-INDUCED POWER OUTAGE ON FOOD SECURITY AND LIVELIHOOD OF THE RESIDENTS OF MAIDUGURI AND THE WAY FORWARD

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Abstract

In recent years, electricity has become an essential part of modern life and a driver for the economy. People use electricity for cooking, lighting, cooling, heating, washing, entertainment, and for operating hospital equipment and various agricultural activities, etc. The lives of Maiduguri residents have been in dilemma for many months, this is due to the power outage caused by insurgents' attack on the electricity tower along the Maiduguri-Damaturu axis. This study seeks to find out how the power outage has affected the food security and livelihood of the populace in Maiduguri town. A structured questionnaire was distributed to various categories of people i.e. Farmers, Business and company owners, people with disabilities, and single youths. 400 questionnaires were distributed and 392 were retrieved. The research also covers mitigation measures to avert the further occurrence of such scenarios as well as proposing alternative energy sources that will serve as a standby in case a similar event occurs. The analysis of the questionnaires was done using SPSS. The results of the finding showed that 98% of the residents of Maiduguri town have been affected by the power outage, this comprises food shortage, reduction in income, high cost of living, inflation of prices, and unemployment. 65% of the respondents revealed that negotiation with the terrorist group will prevent the future occurrence of a power outage, and 20% believed that Government should intensify its counter-insurgency operations to end the insurgency. The alternative energy sources identified are solar energy, wind energy, Biomass energy, and Biofuels energy.

KEYWORDS: Electricity, Insurgents, energy, power outage

Introduction

According to Bisoka et al., (2021), Maiduguri town of Borno State, is the largest city in the North-Eastern part of Nigeria. It is composed of two major local government areas: Maiduguri and Jere with some minor parts of Konduga and Mafa local government areas and it has a total area of 543 km². Maiduguri being the oldest city was selected by the British in 1907 to be the capital of Borno Emirate. Maiduguri has the following major ethnic groups: Kanuri, Shuwa, Bura, Marghi, and Fulani.

However, since 2009 after the emergence of the Boko Haram Insurgency, Borno State inclusive of Maiduguri LGA has been seriously affected by the activities of the insurgents, resulting in the total collapse of some government and Private facilities (Bina et al., 2020). Thus, this has a great impact on the economic situation of the LGA and the State.

Consequently, since the beginning of the year 2021, the Electrical transmission lines connecting Maiduguri city to Damaturu have been burnt down by the said Boko Haram Insurgents. It is on this note that this study explored and determines the impacts of the insurgency-induced power outage on food security and livelihood of the residents of Maiduguri town.

In today's modern society, electricity is a very important component of our daily life. Mobile phones, computers, heating, and cooling systems, television, and light bulbs cannot operate without electricity (Saroj Baral, 2016). Access to electricity by all is one of the targets of sustainable development goal (SDG indicator 7.1.1; UN, 2019)



Power outage endangers the lives and properties of people. Hospital equipment cannot operate in such conditions (Vichova & Hromada, 2019). Some of the causes of power outages in Nigeria according to Uzorh & Innocent, (2011) are vandalisation, overloading of a transformer, technical problems arising from illegal connections and tempering of installations, etc.

2.0 METHODOLOGY

2.1 Research Design

The study adopted a quantitative method of research to provide a wider scope and qualitative data that involves the opinion and views of residents of Maiduguri town. However, a Multi-stage sampling was adopted in this study. Maiduguri town has been divided into 3 clusters using the cluster sampling technique. Maiduguri LGA is cluster one, Jere LGA is cluster two, and some parts of Konduga and Mafa LGA as cluster three. This is due to the larger population of the study area. A simple random sampling technique has been adopted to select four wards each from Jere and Maiduguri LGAs, while two wards, one from each were selected from Mafa and Konduga LGAs. Therefore, 10 wards were selected for the study. A stratified random sampling technique has also been adopted in selecting the respondents of the study; the stratification was based on the type of Business, Gender, Age group, and Level of Education.

2.2 Method of Data Collection

This study adopted data collection through a survey method. The sample of the study was obtained using Taro Yamane's Proportionate simple formula (Yamane Taro 1967):

$$n = \frac{N}{1+N(e)^2} \quad (1)$$

Where: n = sample size, N = population under study, e = margin error

However, 400 questionnaires were administered to the following categories of respondents: Women in households whose business solely depends on electricity (such as Ice block sellers, grinding businesses, etc.), Hospitals, Production companies, and Men in the markets. The questionnaires were distributed across the 10 wards selected for the study based on the population of the wards. Moreover, only 392 questionnaires were successfully filled out and retrieved from the respondents.

2.3 Method of Data Analysis

The data collected and inputted were analyzed using excel application packages and SPSS which were used in coming up with charts representing the percentages of the impacts of the insurgency-induced power outage on food security and livelihood in Maiduguri town, and the data analyzed has been interpreted using tables and graphs to generalized the information generated.

1. RESULTS AND DISCUSSIONS

3.1 Demographic Characteristics of the respondents

A total number of 392 respondents from ten different communities successfully participated in the study. Each of the 10 communities has both male and female respondents. According to figure 1, Mafoni and Gomari wards have the lowest number of female respondents. Lamisula ward has the highest number of female respondents; this may not be unconnected to the population of women involved in business in the area being a community surrounded by a local market. Mairi ward has the highest number of Male respondents being a densely populated area.

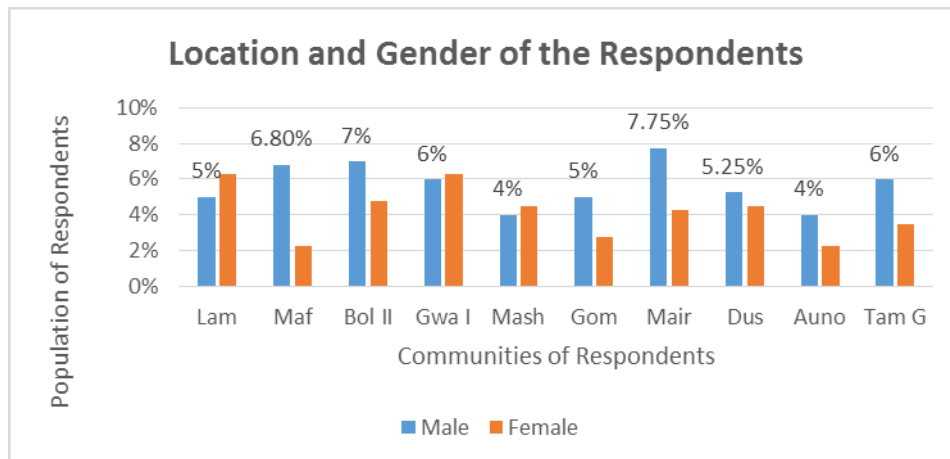


Fig. 1: Location and Gender of the respondents

3.2 Electricity supply condition before an insurgent attack

According to the respondents, there was a considerable stable electricity supply in Maiduguri before the insurgency. Figure 2 shows that 85% of the respondents are of the view that before the insurgency, there has been a stable power supply in Maiduguri town. However, 12% of the respondents stated that even before the insurgency, there has not been a stable electrical power supply in Maiduguri town.

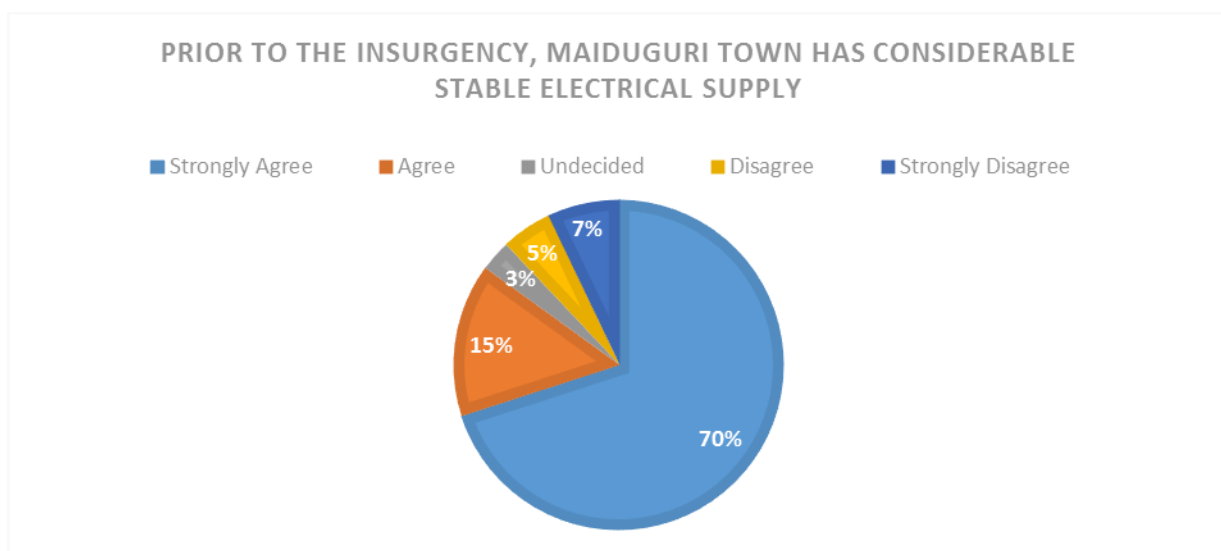


Fig. 2: Chart showing respondents' opinions on stable electrical supply in Maiduguri.

3.3 Stable electricity improves food security and livelihood

A stable electricity supply improves the food security and livelihood of the people in Maiduguri town. This is because electricity is utilized in irrigation and food preservation, thus increasing agricultural productivity. Moreover, as shown in figure 3, 96% of respondents agreed that Stable electricity improves food security and livelihood.

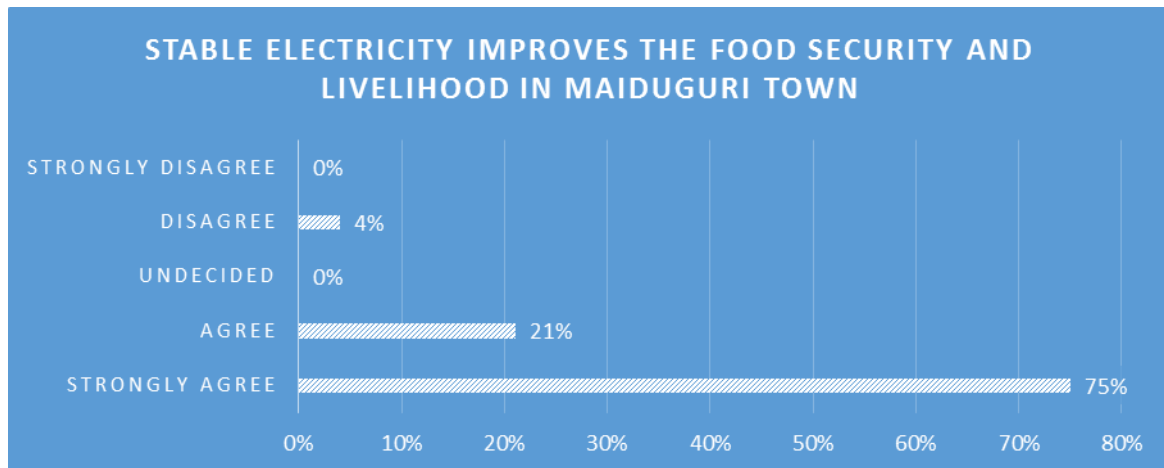


Fig. 3: Stable Electricity versus Food security and livelihood.

3.4 Electricity helps in boosting the economy of Maiduguri town

Access and use of electricity are strongly correlated with economic development (Burke et al., 2018). This study also highlighted that the presence of electricity serves as the key contributor to the economic condition of Maiduguri town. This may not be unconnected with lots of businesses and companies that operate using electricity such as (Floor mills, Coca-Cola, etc.) which help in the creation of more job and investment opportunities. According to Figure 4, 95% of the respondents expressed that electricity helps in boosting the economy of Maiduguri town.

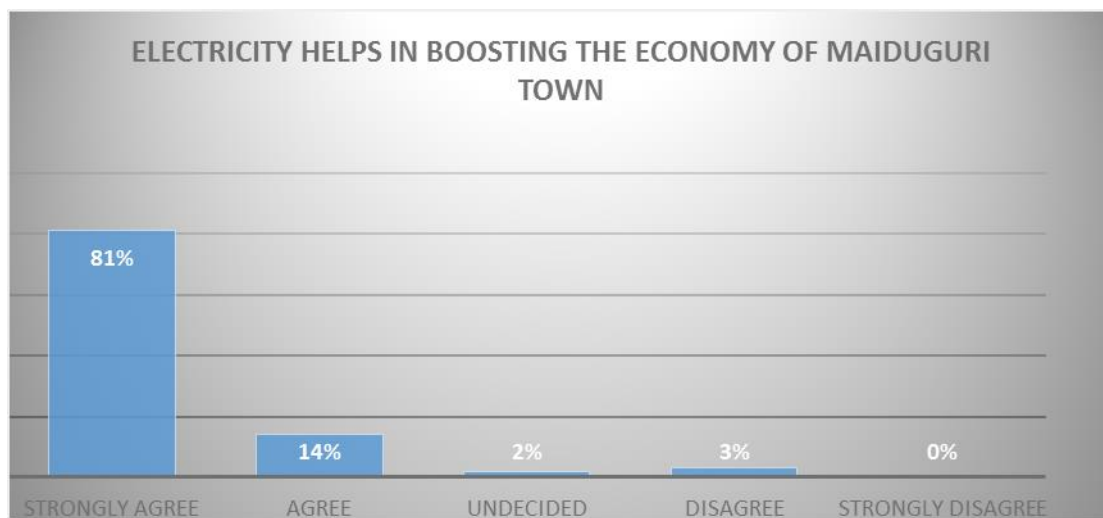


Fig. 4: Electricity helps in boosting the economy of Maiduguri town.

3.5 Lack of Electricity in Maiduguri town is due to insurgency

However, the majority of the respondents expressed that the absence of Electricity in Maiduguri town was due to the activities of the Boko Haram insurgents. This is in tandem with the study of Bina et al., (2020) who expressed that developments have been grounded by Boko haram activities, and also many businesses have been closed down or looted by the insurgent in the study area

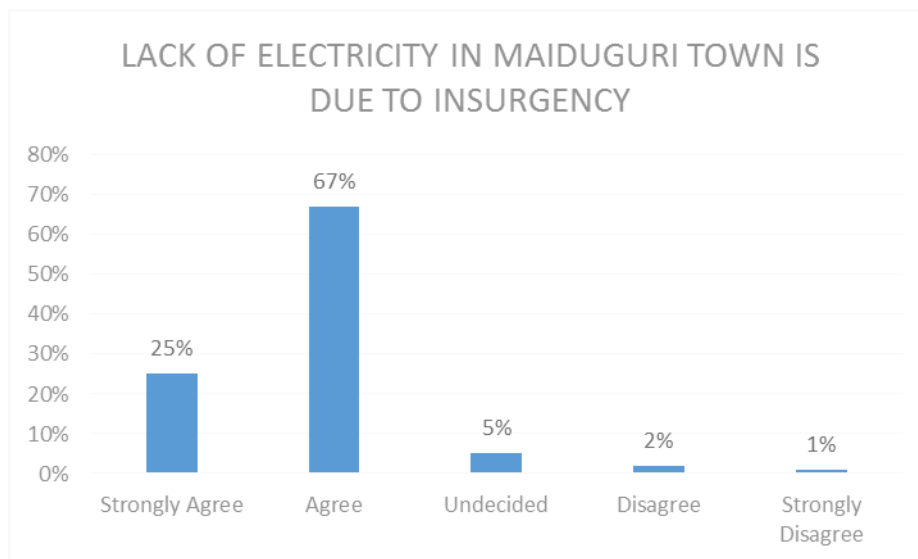


Fig. 5: Lack of Electricity in Maiduguri town is due to insurgency

3.6 Impacts of power outages on food security and livelihood

Electricity access is closely related and served as a component of livelihood (Candelise et al., 2021). It improves food production and utilization. In the same vein, this study also depicted that the lack of Electricity in Maiduguri town has seriously affected the food security and livelihood in Maiduguri town. 94% of the respondents revealed that the lack of stable electricity in Maiduguri town has increased food insecurity and poses a challenge to the livelihood of the residents. This may not be unconnected with the fact that most businesses are closed down as a result of the absence of power supply.

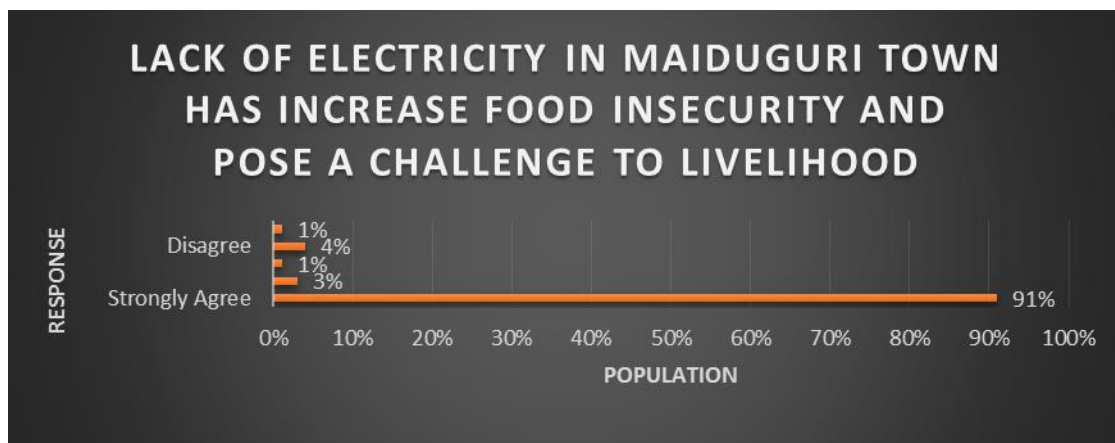


Fig. 6: Nexus between lack of Electricity and Food security and livelihood.

2. CONCLUSION

The result of the study shows that electricity has been the key determinant of the economic development in Maiduguri town which is considered the economic hub of the northeast. However, the study also reveals that the power outage in the town was insurgency-induced and resulted in the closed down of most businesses and companies that solely depend on electricity to operate. Thus, this has been affecting food security and livelihood and can have a detrimental effect on the security and lives of the residents. When the poverty level of people rises, the engagement of youths in crimes increases. For small businesses to contribute to the local economy, and create more jobs, an enabling



environment is a key factor. The government is therefore advised to provide a lasting solution to the power problems in the city of Maiduguri. Creating alternative energy sources can go a long way in boosting the economy of the town.

3. Recommendations

Few recommendations considered here to stop the future occurrence of this problem caused by insurgents and provide an alternative when such thing happened include

- Provisions of alternatives such as solar, wind energy, Biomass energy, and Biofuels energy power which can be harnessed at the point of use without the need for long-distance transmissions This will improve the electrical power supply thereby boosting the economy of Maiduguri town.
- Strong patrol and monitoring of all power installations to avoid complete power outages in town.
- Since the power outage is insurgency-induced, the Nigerian government should as a matter of urgency procure more sophisticated weapons coupled with the required security intelligence to end the insurgency in Borno State and the Northeast as a whole; this will in turn help boost the economy of the region, hence improving the food security and livelihood in Maiduguri town.
- The need to continue peace-building dialogue with the insurgents' group to plan for successful disarmament, demobilization, and reintegration can never be over-emphasized. This will increase the security condition of the town, hence improving the economy of Maiduguri town.

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