١	lational	Bureau	of Statistics	- Nigeria

# Nigeria - Food Insecurity in Conflict Affected Regions in Nigeria 2017, Second Round

National Bureau of Statistics (NBS) - Federal Government of Nigeria (FGN), The World Bank - Federal Government of Nigeria (FGN)

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#### **Overview**

#### Identification

#### **ID NUMBER**

NGA-NBS-FICARN-2017-v1.0

#### Version

#### **VERSION DESCRIPTION**

Version 1.0(April, 2018).

#### **PRODUCTION DATE**

2018-01-19

#### Overview

#### **ABSTRACT**

In this report, we present data from the emergency response survey conducted via telephone among households in three conflict affected regions of Nigeria, North East, North Central and South South between August-September 2017. This round is the second round of telephone data collected from a subsample of households in the Nigeria General Household Survey (GHS). The first round collected data on conflict exposure.

The purpose of this second round of data collection was to understand food insecurity in conflict affected regions. Armed conflict can have a detrimental effect on food security. This might be due to for example reduced agricultural production, or price increases due to malfunctioning markets. Food insecurity might be permanent, such that a household living below the poverty line has a constant struggle to acquire food from the market or produce food for their own use. In situations such as armed conflict, also better endowed households might be temporarily food insecure.

In this report, we find that food insecurity is a major concern in all the three regions studied:

- · The mean household in all the three regions is "highly food insecure"
- · North East of Nigeria is the most food insecure of the three regions
- · Reducing meals or portion size is the most important coping strategy in all three regions
- · Food prices are the most important source of food insecurity in all three regions
- · A large majority of households rely on the market as the main source of food in all regions. Price concerns should therefore be taken very seriously by policy makers.
- · Households in all three regions do not report there being an inadequate supply of food in the market.

#### KIND OF DATA

Sample survey data [ssd]

#### **UNITS OF ANALYSIS**

Individuals, Households and Communities

### Scope

#### NOTES

The questionnaire is divided into 9 sections including a household roster. Information on food insecurity (the coping strategy index, CSI), food and market access, water quality, employment, income, employment and assets was collected.

#### **TOPICS**

Topic	Vocabulary	UR
Agriculture & Rural Development	World Bank	
Land (policy, resource management)	World Bank	
Education	World Bank	
Primary Education	World Bank	
Secondary Education	World Bank	
Tertiary Education	World Bank	
Vocational Education	World Bank	
Girls' Education	World Bank	
Environment	World Bank	
Migration & Remittances	World Bank	
Financial Market Integrity (Anti-Money Laundering)	World Bank	
Transport	World Bank	
Water	World Bank	
Information & Communication Technologies	World Bank	
Social Protection (includes Pensions, Safety Nets, Social Funds)	World Bank	
Labor Markets	World Bank	
Poverty	World Bank	
Fragile & Conflict-affected States	World Bank	
Financial Management	World Bank	
Resettlement	World Bank	
Gender	World Bank	
Children & Youth	World Bank	
Disaster Risk Management	World Bank	

# Coverage

#### **GEOGRAPHIC COVERAGE (1)**

Zones

#### **GEOGRAPHIC COVERAGE (2)**

States

#### **GEOGRAPHIC COVERAGE (3)**

Local Government Areas (LGAs)

### **GEOGRAPHIC COVERAGE (4)**

Households

#### **UNIVERSE**

The Survey covered all household members. The questionnaire was administered to only one respondent per household most often a male household head.

# **Producers and Sponsors**

#### PRIMARY INVESTIGATOR(S)

Name	Affiliation	
National Bureau of Statistics (NBS)	Federal Government of Nigeria (FGN)	
The World Bank	Federal Government of Nigeria (FGN)	

#### OTHER PRODUCER(S)

Name	Affiliation	Role
World Bank	IDA	Technical Assistance in Questionnaire design, Sampling methodology, Data Processing and Analysis
National Bureau of Statistics	Federal Government of Nigeria (FGN)	Technical Assistance in Questionnaire design, Sampling methodology, Data Processing and Analysis

#### **FUNDING**

Name	Abbreviation	Role
World Bank	WB	Funding

# Metadata Production

#### **METADATA PRODUCED BY**

Name	Abbreviation	Affiliation	Role
National Bureau of Statistics	NBS	Federal Government of Nigeria (FGN)	Metadata Producer

#### **DATE OF METADATA PRODUCTION**

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#### **DDI DOCUMENT VERSION**

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# **Sampling**

### Sampling Procedure

The food security survey was a telephone based survey conducted between August 15th and September 8th 2017. The interview was the second round of a telephone survey using a sub-set of the sample of GHS (General Household Survey) households. The first round of the telephone interview was administered during spring 2017 with 717 completed interviews with the following geographical distribution: 175 interviews in the North East, 276 in North Central and 266 in South South. The first round was focused on conflict exposure, while the second round discussed in this report focused on food insecurity in conflict affected regions.

In the three conflict affected geographical zones comprising of 16 states of Nigeria, households from LGS's that had high conflict exposure were oversampled chosen for a pilot sample, conducted before the telephone surveys. These LGS's were chosen based on the following criteria: The oversampled LGS's needed to have over 10 conflict events during 2012-14 recorded in the Armed Conflict Location & Event Data Project (ACLED) database.

The first round of the telephone survey (which took place after the pilot) first attempted to reach 742 households from the GHS panel, of which 529 could be reached and interviewed. The rest did not have phone numbers or functioning phone numbers (only 2.7 percent refused to answer). In order to increase the sample size to a level that was considered adequate for the survey, an additional 288 replacement households were included in the sample also from the GHS panel. Out of these replacement households 188 could be interviewed. Therefore altogether 1030 households were attempted to be reached, with a final sample size of 717 completed interviews.

Conflict affected areas were oversampled in order to have a large enough sample of households that in fact experienced conflict events in order to shed light on the type of events that have happened. A random sample of the zones might have given too small sample of conflict affected households and therefore restricted the analysis of the various types of conflict events. Due to the oversampling however, the sample drawn was not representative at the level of the geographical zone, as is the case in the GHS. Therefore in the analysis we use sampling weights that adjust for the propensity of being in a conflict affected LGA in order to ensure that the sample is representative at the level of the geographical zone.

During the second round of the survey 582 of the 717 households were re-interviewed on food security related issues (only the 717 were attempted to be reached). Of the 582 households 147 in the North East, 219 in North Central, and 216 in South South were interviewed. The attrition rates in our sample from round one to round two are hence 16 percent, 21 percent, and 19 percent for North East, North Central and South South, respectively. The attrition from the conflict survey round was mostly due to not being able to reach the respondents possibly due to non-functioning phone numbers. Only 3 percent of respondents refused to answer.

Similar telephone-based surveys are being conducted in six countries in Sub-Saharan Africa under the World Bank project "Listening to Africa". As a comparison, a mobile phone survey in Tanzania (see Croke et al. 2012 for details), had a high drop-out rate between the very first rounds from 550 to 458 respondents, but very low attrition for the subsequent rounds for the 458 respondents, who could reliably be reached by a mobile phone. In light of this reference point and also considering the fact that the households interviewed live in conflict affected regions, our attrition rates seem to be within reasonable limits.

# Deviations from Sample Design

No Deviation

# Response Rate

The first round of the telephone survey (which took place after the pilot), first attempted to reach 742 households from the GHS panel, of which 529 could be reached and interviewed. The rest did not have phone numbers or functioning phone numbers (only 2.7 per cent refused to answer). In order to increase the sample size to a level that was considered adequate for the survey, an additional 288 replacement households were included in the sample also from the GHS panel. Out of these replacement households 188 could be interviewed. Therefore altogether 1030 households were attempted to be reached, with a final sample size of 717 completed interviews.

The response rate is 96%

# Weighting

In the analysis, probability weights that adjust for the propensity of being in a conflict affected LGA in order to ensure that the sample is representative at the level of the geographical zone was used.

# Questionnaires

# Overview

The questionnaire is divided into 9 sections including a household roster. Information on food insecurity (the coping strategy index, CSI), food and market access, water quality, employment, income, employment and assets was collected.

# **Data Collection**

#### **Data Collection Dates**

Start	End	Cycle
2017-08-15	2017-09-08	Second round

#### **Data Collection Mode**

Computer Assisted Telephone Interview [cati]

#### **DATA COLLECTION NOTES**

NBS in collaboration with the World Bank carried out the survey using mobile phones and captured data in tablet, which was later uploaded to the server after verification. Both teams worked together to design and program the instrument in Survey Solutions.

Two supervisors and five enumerators carried out the data collection. The supervisors were previously trained on how to carry out electronic data collection via telephone, and also on how to provide training to enumerators by the Poverty and Equity and the LSMS teams. In addition to the training that took place before the baseline data collection, the supervisors were oriented to the second-round survey on food security. Thereafter, the supervisors trained the enumerators for the round 2 questionnaire. Before the data collection started, the questionnaires were piloted in-house and the enumerators also called someone in their home area.

During the data collection, the supervisors were constantly present to monitor the data collection process. The supervisors also verified responses after the interviews before downloading the data to the server.

During the interview, the participants were told that they could drop out at any time or choose not to answer a given question. All the participants were given 300 Naira of call time to take part in the survey. The call credit was transferred the very next day. We expect this to have contributed to the very low rate of non-response.

During the course of the data collection process, three consistency checks were run to check that the length of the interviews were in accordance with the target time frame and to flag questionable entries during the data collection process

#### **Data Collectors**

Name	Abbreviation	Affiliation
National Bureau of Statistics	NBS	Federal Government of Nigeria(FGN)
World Bank	WB	IDA

#### **SUPERVISION**

The survey was a telephone based survey comprising of 3 Interviewers(out-sourced) and a Supervisors from the National Bureau of Statistics. The role of the supervisor was to a supervisor was engaged to monitor the data collection effort and also to verify responses before uploading them to the server.

# **Data Processing**

### **Data Editing**

Data was analyzed using descriptive statistics in Stata 15. All data analysis was tracked using comprehensive do files to ensure reproducibility. All statistics presented in this report have been adjusted with probability weights, when possible, to be representative at the level of the geopolitical zone.

Demographics for each geopolitical zone were analyzed based on the complete GHS 2016 dataset.

# Other Processing

Data collection on mobile devices provided many advantages. As data quality was reviewed during the data collection and supervision, strong rigor was ensured for the survey data. The double data entry steps were eliminated and the time needed to process the data after fieldwork was reduced

# **Data Appraisal**

### **Estimates of Sampling Error**

No Sampling Error

### Other forms of Data Appraisal

Limitations

**Recall Bias** 

In the pilot data collection, respondents were asked to report on conflict events that had taken place in their family and their community over the last six years. This extremely long recall period must be considered when drawing inferences from the data. People are likely to under-report less severe (and therefore less memorable) events, particularly those that happened to community members in larger communities. Respondents are also more likely to recall events that happened to family members than those that happened to community members. Other biases may also be at play - for example, those who have been most highly affected by conflict over the last six years may have moved to another community. These factors demonstrate the importance of implementing a regular data collection schedule, which would allow far more accurate data to be collected.

Sampling Bias

The GHS is a panel survey taking place over multiple rounds through a period of time. Therefore, households that are more mobile or households that are nomadic are less likely to be represented in this sample. This may be particularly relevant in circumstances where nomadic groups are named as perpetrators of conflict events.

Power Dynamics

There are some disadvantages to the phone system, and for this reason it should be supplemented by additional types of data collection wherever possible. In a mobile phone survey, the respondent is the person who owns a mobile phone. In many areas, particularly those highly affected by poverty and those located in rural areas, only one family member owns a mobile phone. This is generally the household head, who is most likely male. Furthermore, in many of these communities, women are not allowed to have access to mobile phones and are forbidden from speaking to outsiders, which can prohibit mobile phone-based data collection.

**Gender Dynamics** 

The questionnaire was administered to only one respondent per household - most often a male household head. This means that crimes that carry stigma, especially sexual violence, are less likely to be reported. In this dataset, no sexual assault was reported despite data collected elsewhere that indicate that rape was used as a weapon by Boko Haram and elsewhere. This also means that violence that affects members of the household with less power (such as women, children, and employees), is less likely to be reported. This may be particularly important when considering violence not related to ongoing external conflict, such as domestic violence.