

**NORTHWEST NIGERIA**

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# **2022 MULTI- SECTOR NEEDS ASSESSMENT (MSNA)**

Methodology Note, January 2023



Assessment conducted in the framework of:

The Northwest Coordination Forum

Funded by:



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With support from:



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### About REACH

REACH facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT). For more information please visit [our website](#). You can contact us directly at: [geneva@reach-initiative.org](mailto:geneva@reach-initiative.org) and follow us on Twitter @REACH\_info.

# METHODOLOGY

## Specific objectives and research questions

Against a background of insecurity, displacement, and long-standing development and humanitarian needs, this first MSNA in northwest Nigeria aims to provide humanitarian actors with **a holistic, up-to-date overview of the main humanitarian needs faced by internally displaced persons (IDPs) and non-displaced communities in Katsina, Sokoto, and Zamfara states.**

To approach this objective, the MSNA sought to answer the following research questions:

- What is the **demographic profile** of IDP and non-displaced communities and what are **the main movement dynamics**? – *Findings further elaborated in the REACH thematic report: [Navigating the in-between, IDPs' search for security in Northwest Nigeria](#)*
- What are the current **priority needs** in terms of food, health, WASH, shelter, education, and protection?
  - What is driving these needs?
  - What are the key vulnerabilities compounding these needs?
  - How do needs vary based on households' displacement status?
- Which types of **assistance** has been provided to communities, and to what extent has **assistance been in line with their needs**? *Findings further elaborated in forthcoming thematic report.*

## Scope

While the humanitarian focus on Nigeria is directed mainly towards the northeast of the country in light of the now 13 year old insurgency emanating from the Lake Chad region, insufficient information remains available on the humanitarian conditions in the **northwest**, which also faces increasing violence and insecurity, displacement, and other shocks disrupting livelihoods and threatening wellbeing.<sup>1</sup> Therefore, this MSNA aimed to complement the northeast MSNA in focusing on the northwestern states deemed likely to be among the most-affected states by insecurity and displacement:<sup>2</sup> **Katsina, Sokoto, and Zamfara states.**

Considering the dearth of comprehensive and representative household-level evidence on the humanitarian conditions of the populations in these states, this MSNA sought to understand the humanitarian profiles of both **non-displaced** and **internally displaced** households. Therefore, the sampling approach was designed to reach:

- IDPs residing in Sokoto, Zamfara, and Katsina States, including both IDPs hosted by the local community as well as IDPs in collective sites.
- Non-displaced households, including households that are hosting IDPs. These households reported not having been displaced since 2013.

Due to the absence of population data on returnees in the northwest, returnees were not included in the sampling framework. However, returnees may have been interviewed as part of the final sample.

In accordance with partners' information needs, the MSNA covered the following humanitarian sectors: cash and early recovery & livelihoods (ERL), food security & nutrition, health, water, sanitation, &

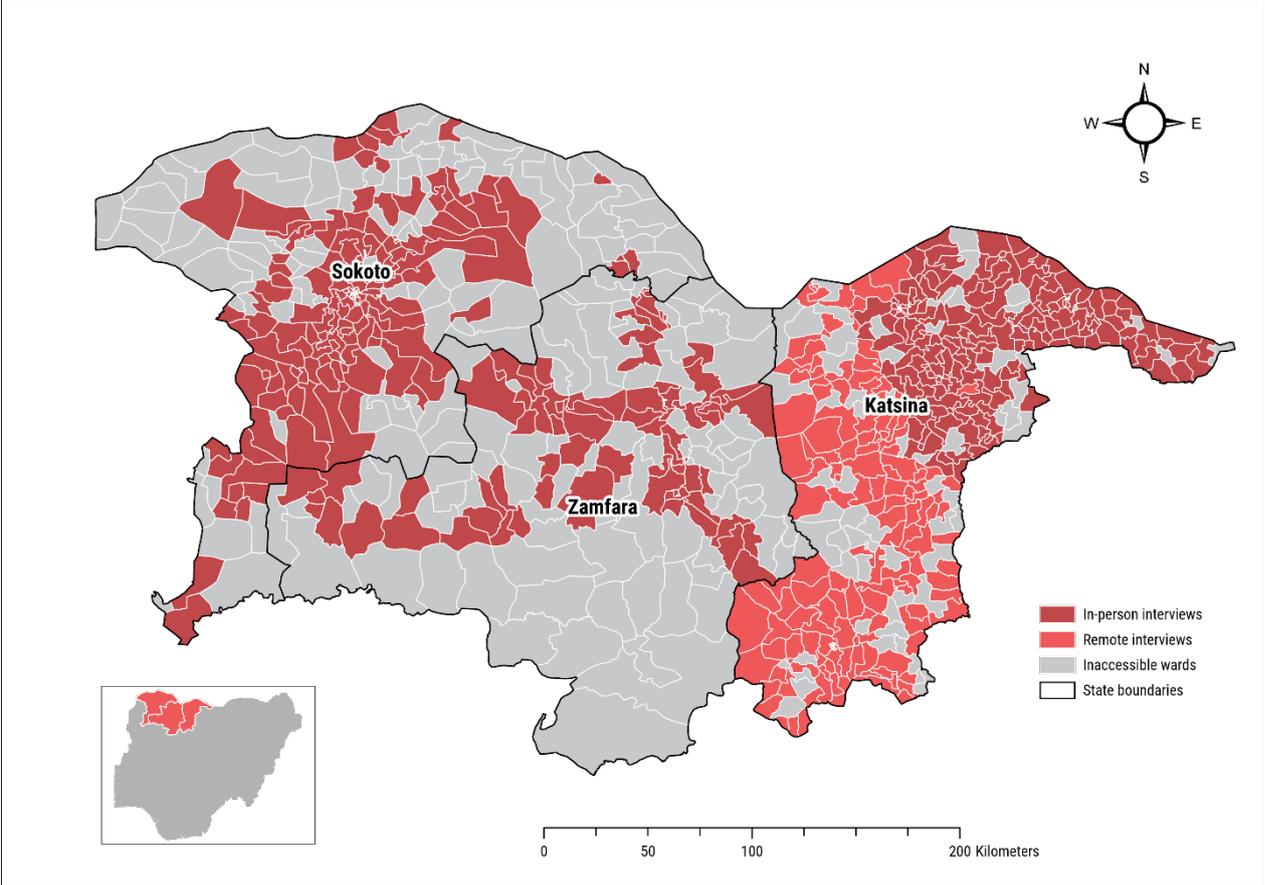
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<sup>1</sup> WFP (May 2022). [Essential needs analysis northwest and northcentral Nigeria.](#)

<sup>2</sup> UNHCR & Government of Nigeria. (January 2021). [Protection monitoring report Katsina, Sokoto, and Zamfara.](#)

hygiene (WASH), shelter & non-food items (NFIs), protection, education, as well as cross-cutting factors such as demographics, movement dynamics, coping capacities, underlying vulnerabilities, and accountability to affected populations (AAP).

**Map 1: Assessment coverage**



### Secondary data review

A review of the secondary literature and data was conducted to inform research design and data analysis and facilitate interpretation. Relevant secondary source material, including baseline assessments and situation reports from humanitarian agencies, non-governmental organisations (NGOs) and other institutions, was entered into a data review matrix, to which new sources were added on an ongoing basis.

### Primary data collection: Sampling strategy

In the absence of a comprehensive list of all households residing in the assessed states at the time of data collection, the sampling framework was based on the available list of all settlements and villages in the three assessed states. In light of this, sampling was done through a two-stage cluster sampling approach. The following two datasets were used for the sample design:

- The GRID3 Nigerian Population Estimates dataset (most recent data from February 2021) contains the estimated population figures for Nigeria, with granularity up until admin 4 (settlement) level. The data retrieved from this dataset was further disaggregated and

triangulated using zonal statistics to cross-reference the names of administrative units and retrieve the final list of settlements.

- Information on the presence of IDPs was derived from the International Organisation for Migration's (IOM) Displacement Tracking Matrix (DTM). At the time of the assessment design, data from the most recent iteration of the IOM DTM came from July 2021.

Sample size targets were set to retrieve a sample that would be representative of the displaced and non-displaced population at a 92% confidence level and a 10% margin of error for both population groups. On the basis of the available data, the sample targets for non-displaced households were set to achieve representative data at the (LGA) (admin 2) level, while the target sample for the IDP households can only be representative at the state level. For both population groups, a buffer of 10% was included to account for non-response. In addition, replacement clusters (totalling 3,305 surveys) were included to mitigate access constraints in some locations.

During the first stage, settlements from the GRID3 dataset (stratified by population size) were randomly selected for data collection, with more densely populated settlements having a higher probability of being sampled. The second stage consisted of randomly distributing survey locations (household addresses) within the selected settlements through R/ArcGIS. Enumerators used Maps.Me software to retrieve randomly distributed GPS points within the selected settlements to find households to interview.

Considering that some locations might be inaccessible for security reasons, the sampling strategy included a quota sampling option for locations that cannot be accessed for face-to-face data collection but where remote surveys (via phone) would be possible. Each state received a quota of 150 surveys for remote data collection, which was distributed between the number of inaccessible settlements during data collection. As such, findings from the remote surveys cannot be generalised with a known level of precision.

## Primary data: Data collection

Field teams were trained prior to data collection on the use of the KOBO software and the questionnaire more generally, as well as accountability to affected population (AAP) and protection from sexual exploitation and abuse (PSEA) protocols. More information on the enumerator training modules can be found in [Annex 2](#).

Data collection took place between 14.03.2022 and 31.07.2022. In total, enumerators interviewed 11,090 households, including 9702 non-IDP households and 1388 IDP households (see table 1).<sup>3</sup> Overall, 2,739 of those interviews were conducted remotely with households in inaccessible settlements in the west of Katsina (see assessment coverage map).

Due to security considerations, access constraints, and a higher-than-expected design effect of the sampling, the original aim of reaching a sample representativity at the LGA (admin 2) level could not always be achieved. All population groups are representative at the State (admin 1) level, but for some LGAs, findings ended up indicative at the LGA (admin 2) level. Please see [Annex 3](#) for a comprehensive list of margins of errors for each assessed LGA. As is always the case, findings related to a subset of the total sample – caused by skip-logic in the questionnaire – are also to be considered indicative only.

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<sup>3</sup> Numbers relate to the number of surveys kept after data cleaning and thus included in the analysis; in reality, 11406 households were interviewed.

**Table 1: Sample sizes, overall and per stratum**

<b>State</b>	<b>Number of non-displaced households interviewed</b>	<b>Numer of displaced households interviewed</b>	<b>Total number of households interviewed</b>
Katsina	4554	741	5292
Sokoto	3155	283	3438
Zamfara	1993	364	2357
<b>Total</b>	9,702	1,388	11,090

Enumerators used KOBO software which allowed households' responses to be entered directly into the overall dataset (Excel), enabling the REACH Database Officer to review the data on a daily basis and to follow up with enumerators on particular issues and potential outliers while data collection was ongoing. Data cleaning was done in accordance with the IMPACT Data Cleaning Minimum Standards and all changes to the dataset were included in a data cleaning log. The final dataset, cleaning log, and analysis were reviewed and validated by sector and research specialists at IMPACT Headquarters.

## Analysis

Data was analysed in accordance with the MSNA analytical framework, which was created by REACH to facilitate the analysis of crisis-level data across sectors and population groups. The MSNA analytical framework draws some conceptual elements from the Joint Inter-Sectoral Analysis Framework (JIAF)<sup>4</sup> and is used in conjunction with the MSNA indicator bank.

The framework comprises the following analytical concepts:

- **Living standard gaps (LSGs).** An LSG signifies an unmet need in a given sector. LSGs are composite indicators designed to measure the severity of need per sector. Each household receives an LSG severity score (1-4+) per sector. Households with an LSG severity score of 3 or higher are considered to have an unmet sectoral need.
- **The Multi-Sector Needs Index (MSNI).** The MSNI is a measure of a household's overall severity of humanitarian needs across sectors (expressed on a scale from 1 to 4+), based on the highest severity of sectoral LSG severity scores identified in each household.
- **Severity.** In the MSNA analytical framework, "severity" signifies the intensity of unmet needs, based on a scale that ranges from 1 (minimal/no need) to 4+ (extreme+ needs).<sup>5</sup>
- **Magnitude.** The "magnitude" corresponds to the overall number or percentage of households in need.
- **Pre-existing vulnerabilities.** Pre-existing vulnerabilities are defined as the underlying processes or conditions that influence the degree of the shock and influence exposure, vulnerability, and capacity, which would subsequently exacerbate the impact of a shock on those affected by the vulnerabilities.

<sup>4</sup> The JIAF is an analytical framework being developed at the global level aiming to enhance understanding of humanitarian needs of affected populations. The JIAF measures a progressive deterioration of a household's situation towards the worst possible humanitarian outcome.

<sup>5</sup> While the JIAF severity scale includes 5 classifications ranging from 1 (none/minimal) to 5 (catastrophic), for the purpose of the MSNA, only a scale of 1 (none/minimal) to 4+ (extreme+) was used. A score of 4+ indicates a potentially catastrophic situation. This difference is because the data needed for a score of 5 is primarily area-level data (e.g., mortality rates, morbidity, and malnutrition prevalence), which is difficult to factor into household-level analysis.

## Living standard gaps (LSGs)

Based on the severity scale, LSG scores (per sector) were produced by aggregating unmet needs indicators per sector, taken from the MSNA indicator bank. A simple aggregation methodology was used, which is based on the Multi-Dimensional Poverty Index (MPI) aggregation approach. Using this method, each household was assigned a "deprivation" score according to its deprivation in the component indicators. The deprivation score of each household was obtained by calculating the percentage of the deprivations experienced, so that the deprivation score for each household lies between 0 and 100. The method relied on the categorisation of each indicator on a binary scale: does ("1") /does not ("0") have a gap. The threshold used to determine whether a household was considered to have a particular gap or not was determined in advance for each indicator together with the relevant partners per sector. For a complete overview of indicators and thresholds feeding into the sector LSG scores, please see the consult [the LSG frameworks](#).

In addition to these binary indicators, a subset of 'critical' indicators were also identified which by themselves could indicate a severe or very severe need within the household. The final LSG severity score was determined by taking the higher of the two scores i.e. MPI aggregated score or the critical indicator score. The section below outlines a step-for-step guidance for producing the aggregation using household-level data:

- 1) Identify indicators that measure needs ('gaps') for each sector, capturing the following key dimensions: accessibility, availability, quality, use, and awareness. For each indicator, binary thresholds are set: does ("1") / does not ("0") have a gap;
- 2) Identify critical indicators that, on their own, indicate a gap in the sector overall. For each critical indicator, thresholds are set for each severity class ranging from 1 (none/minimal) to 4+ (extreme+).
- 3) Identify individual indicator scores for each household, once data had been collected;
- 4) Calculate the severity score for each household, based on the following decision tree (tailored to each sector);
  - a. Critical indicators: Using a decision tree approach, a severity class is identified based on a discontinued scale of 1 to 4+ (1,2,3,4,4+) with accompanying thresholds;
  - b. Non-critical indicators: the scores of all non-critical indicators are summed up and converted into a percentage of possible total (e.g. 3 out of 4 = 75%) to identify a severity class;
  - c. The final score/severity class is obtained by retaining the highest score generated by either the critical or non-critical indicators.
- 5) Calculate the proportion of the population with a final severity score of 3 and above, per sector. Having a severity score of 3 and above in a sector is considered as having an LSG in that sector;
- 6) Project the percentage findings onto the population data that was used to build the sample, with accurate weighting to ensure best possible representativeness.

## Multisector Needs Index (MSNI)

The MSNI is based on the highest severity of sectoral LSG severity scores identified in each household. The overall MSNI can give an indication of the magnitude (total proportion of households with multi-sectoral needs) and severity of humanitarian needs (proportion of households with multi-sectoral needs per severity of their needs) across sectors.

The MSNI is determined through the following steps:

- 1) The severity of each of the sectoral LSGs is calculated per household (see Annex 2).
- 2) A final severity score (MSNI) is determined for each household based on the highest severity of sectoral LSGs identified in each household. As shown in the example the figure below, household (HH) 1 has a final MSNI of 4 because that is the highest severity score, across all LSGs within that household.

	Sectoral LSG Severity Score						Final MSNI
	Food Sec	Health	WASH	Protection	Education	Etc.	
HH 1	4	4	4	4	3	3	4
HH 2	2	2	4	2	1	1	4
HH 3	3	3	3	4+	2	1	4+
Etc.	2	3	1	1	2	1	3

**Key limitation:** The MSNI approaches multi-sectoral needs from a big-picture perspective. Regardless of whether a household has a very severe LSG in just one sector (e.g. WASH for HH 2 above) OR co-occurring severe LSGs across multiple sectors (e.g. food security, health, WASH, protection for HH 1 above), their final MSNI score will be the same (4). While this might make sense from a “big picture” response planning perspective (if a household has an extreme need in even one sector, this may warrant humanitarian intervention regardless of the co-occurrence with other sectoral needs), additional analysis on the number of LSGs per household, their scores’ severity, and overlap should be conducted to understand such differences in magnitude of severity between households. Therefore, this report triangulates the crisis-level MSNI with additional sectoral and inter-sectoral analysis.

## Ethical considerations

Humanitarian principles and the Do No Harm imperative were abided by during research design through to data collection and analysis. Enumerators and other staff received AAP and PSEA training (for a detailed training agenda, see [Annex 2](#)). All survey respondents were informed about the assessment intentions and their consent was sought prior to the start of the interview and more general community awareness sessions were conducted to communicate the objectives of the MSNA. To achieve an inclusive sample and ensure voices from a wide range of the population were incorporated, tools were translated into Hausa and Fulani dialects and enumerator teams were as diverse as possible.

Local COVID-19 measures and regulations, as well as IMPACT’s Standard Operating Procedures (SOPs) on Data Collection during COVID-19 were adhered to during data collection.

## Challenges and limitations

- **Access constraints:** Due to security concerns, enumerator teams were not always able to visit the selected settlements, in which case they had to rely on remote data collection or reserve clusters. As a result, it was not possible to retrieve a representative sample at the LGA level for each LGA (as was intended in the research design phase). Remote data collection was not always an option, which means that findings are not reflective of the situation in areas inaccessible due to insecurity, where needs among the remaining population might be higher.
- **Remote data collection:** Remote data collection also created some particular challenges and limitations, including:
  - Poor connectivity and the lack of personal interaction during a phone-based interview might have negatively affected respondents' attention;
  - Privacy could not be ensured, which might have led to under-reporting on sensitive topics;
  - Unequal phone ownership may also have biased results towards better-off households and men (in households with only one phone);
  - Phone-based interviews could have created communication barriers for persons with hearing difficulties.
- **Proxy reporting for individual-level indicators:** Data on the individual level (for instance sought after for health and nutrition indicators) was reported by proxy by one respondent per household, rather than by the particular individual household members themselves, and therefore might not accurately reflect lived experiences of individual household members, who also might be more vulnerable.
- **Limitations of household surveys:**
  - While household-level quantitative surveys seek to provide quantifiable information that can be generalised to represent the populations of interest, the methodology is not suited to provide in-depth explanations of complex issues. Thus, questions on "how" or "why" are best suited to be explored through qualitative research methods. Findings were, where possible, further contextualised through the secondary data review. Future, in-depth semi-structured assessments will be relevant to substantiate, triangulate, and nuance quantitative MSNA findings.
  - Intra-household dynamics (including for instance intra-household power relations across gender, age, disability) could not be captured. Users are reminded to supplement and triangulate household-level findings with other data sources.
- **Potential under-reporting on sensitive subjects:** Both during face-to-face and remote data collection, sensitive questions, for instance questions related to protection incidents, child labour, or power and gender dynamics, might lead to under-reporting. Findings should be approached with caution and triangulated with secondary sources where possible.
- **Measuring protection LSGs:** In the inter-sectoral needs analysis, protection-related needs have proven hard to measure at the household level due to the composition of the composite LSG indicators, the sensitivity of the subject (see previous point), and the fact that protection needs might be better captured at the area level, rather than the individual household level. As a result, the protection LSG might not fully reflect the protection risks households were exposed to at the time of data collection. Protection gaps might drive needs in other sectors, for instance due to insecure access to land or water sources. Wherever possible, protection has therefore been mainstreamed throughout the analysis.
- **Measuring health LSGs:** Results suggest health needs were similarly challenging to measure. Since it is difficult to assess quality of healthcare and morbidity prevalence through a multisector household tool, questions were primarily focused on the access dimension. As a result, the health LSG ought to be used with caution and triangulated with other data sources to gain a nuanced understanding of health needs.

# ANNEXES

## Annex 1: Available technical documentation

For more information on the methodology and analysis conducted for this MSNA, please revert to the:

- [Terms of Reference \(ToR\)](#)
- [Questionnaire and Detailed Analysis Plan \(DAP\)](#)
- [MSNA Dataset](#)
- [LSG Framework](#)
- [MSNA Analysis Tables](#)

## Annex 2: Enumerator training agenda

Training of enumerators took place over 3 days in February. Enumerators were trained on the code of conduct, do no harm principles, data collection best practice, and the specific use of the Kobo tools per each covered sector, among other topics.

21 February - Day 1		
S/N	Activity	Time
1	Arrival of participants	8:30am
2	Introduction & REACH MSNA Overview	10:00am -10:40am
3	Tea break	10:40am -11:15am
4	Code of Conduct	11:15am -11:45am
5	Anti- Fraud/ Corruption & Grievance policy	11:45am -12:15pm
6	Do No Harm Principles	12:15pm - 01:00pm
7	Lunch	1:00pm - 2:00pm
8	Data protection and privacy	02:00pm - 02:30pm
9	Social skills	02:30pm - 03:00pm
10	COVID -19	03:00pm - 03:40pm
11	Brief Break	03:40pm - 04:00pm
12	Feedback/general Q&A	04:00pm - 03:30pm

22 February - Day 2		
S/N	Activity	Time
1	Introduction to kobo collect	8:45am – 09:30am
2	In-person data collection	09:30am -10:10am
3	Tea break	10:10am -10:30am
4	Remote Data collection	10:00am -11:00pm
5	Field data cleaning	11:00am -12:00pm
6	Safety & Security	12:00pm – 1:00pm
7	Lunch	01:00pm - 02:00pm
8	Maps.me	02:00pm - 03:00pm
9	Practical session on Map.me	03:30pm - 04:00pm
10	Brief Break	03:40pm - 04:00pm
11	Feedback/general Q&A	04:00pm - 04:30pm

23 February - Day 3

1	Arrival of participants	8:30am
2	Tool review (Metadata & Demography)	9:00am-10:30am
3	Tea break	10:30am-11:00am
4	Movements Dynamics, Early recovery & Livelihood	11:00am-12:00pm
5	Food security, nutrition & health	12:00pm-01:00pm
6	Lunch	01:00pm-02:00pm
7	Health	02:00pm-03:30pm
8	Feedback/general Q & A	03:30pm-04:00pm

Annex 3: Margin of Error (MoE) at Admin 2 (LGA) Level

	LGA	Overall Margin of Error (MoE)	MoE for Sector 1 Cash & ERL	MoE for Sector 2 Food Security & Nutrition	MoE for Sector 3 Health	MoE for Sector 4 WASH	MoE for Sector 5 Shelter NFI	MoE for Sector 6 Protection	MoE for Sector 7 Education	MoE for Sector 8 AAP & Communication	MoE for Sector 9 Movement Dynamics
Katsina State	Bakori	30.00%	15.50%	14.50%	13.00%	16.50%	14.50%	30.00%	3.00%	16.50%	14.50%
	Batagarawa	29.50%	11.50%	11.00%	11.50%	13.00%	11.00%	29.50%	5.00%	12.50%	9.50%
	Batsari	18.00%	12.50%	11.00%	15.00%	15.00%	18.00%	17.00%	5.00%	17.50%	11.00%
	Baure	20.00%	12.50%	10.50%	16.50%	11.50%	20.00%	19.00%	10.00%	14.00%	11.50%
	Bindawa	21.50%	10.50%	7.50%	12.00%	12.00%	13.00%	21.50%	5.00%	10.50%	9.50%
	Charanchi	28.00%	18.00%	14.00%	13.50%	16.00%	20.00%	28.00%	5.50%	16.00%	21.00%
	Dan Musa	21.50%	15.50%	13.50%	21.50%	16.00%	18.50%	15.50%	6.50%	21.00%	14.00%
	Dandume	15.50%	13.00%	12.00%	11.50%	13.50%	15.50%	14.50%	4.50%	14.00%	15.50%
	Danji	18.50%	14.00%	11.50%	14.50%	15.00%	15.00%	18.50%	8.50%	17.50%	11.50%
	Daura	18.00%	10.50%	9.50%	10.50%	15.00%	13.00%	18.00%	2.00%	9.50%	7.50%
	Dutsi	25.00%	13.50%	8.50%	12.50%	12.50%	21.00%	25.00%	5.50%	12.00%	10.00%
	Dutsin Ma	14.00%	10.00%	10.00%	12.50%	13.00%	14.00%	13.00%	3.00%	11.00%	10.00%
	Faskari	20.50%	16.00%	19.00%	14.50%	18.50%	20.50%	20.00%	2.50%	19.50%	14.00%
	Funtua	16.00%	13.00%	16.00%	8.00%	16.00%	11.50%	10.50%	2.50%	13.50%	13.50%
	Ingawa	26.00%	14.00%	12.50%	16.50%	17.00%	15.00%	26.00%	11.00%	16.50%	12.50%
	Jibia	25.50%	25.50%	16.00%	17.50%	21.00%	20.50%	19.50%	10.00%	18.50%	16.00%
	Kafur	24.00%	13.50%	12.50%	11.50%	13.50%	14.00%	24.00%	6.00%	13.50%	12.00%
	Kaita	31.00%	8.50%	9.00%	10.50%	10.50%	10.50%	31.00%	5.50%	9.50%	10.00%
	Kankara	20.00%	13.50%	18.00%	12.50%	18.00%	16.00%	20.00%	3.50%	15.50%	14.00%
	Kankia	17.50%	16.00%	14.00%	13.50%	14.00%	12.50%	17.50%	3.50%	15.00%	14.50%
	Katsina	15.00%	5.00%	5.00%	6.00%	6.00%	6.00%	15.00%	2.00%	5.50%	5.00%
	Kurfi	17.00%	11.00%	10.50%	12.00%	11.50%	17.00%	12.50%	6.50%	11.50%	10.50%
	Kusada	19.50%	18.00%	11.00%	10.50%	13.00%	19.50%	18.50%	4.50%	12.00%	9.00%
	Mai'Adua	20.50%	17.00%	15.50%	14.50%	18.00%	17.00%	20.50%	4.00%	16.00%	12.50%
	Malumfashi	21.00%	20.50%	14.50%	12.50%	19.50%	16.50%	15.00%	3.00%	21.00%	11.00%
	Mami	12.50%	12.00%	9.50%	11.00%	12.00%	11.50%	10.50%	4.50%	12.00%	10.00%
	Mashi	21.00%	15.00%	13.00%	13.50%	15.50%	21.00%	21.00%	4.00%	14.00%	12.50%
	Matazu	19.50%	13.00%	13.50%	10.50%	15.50%	19.50%	15.00%	5.00%	15.00%	14.00%
	Musawa	29.00%	13.50%	14.00%	13.50%	15.00%	14.00%	29.00%	7.50%	15.50%	14.50%
	Rimi	13.00%	10.50%	11.50%	10.00%	12.00%	13.00%	9.00%	8.50%	12.50%	10.50%
Sabuwa	19.50%	14.00%	19.50%	14.00%	16.00%	16.00%	19.50%	3.00%	17.00%	14.00%	
Safana	16.00%	13.50%	12.50%	16.00%	13.50%	15.00%	12.00%	4.50%	14.00%	14.00%	
Sandamu	16.50%	16.50%	9.50%	10.00%	11.50%	16.00%	14.50%	6.50%	16.50%	9.50%	
Zango	20.00%	14.00%	10.00%	11.50%	11.50%	20.00%	12.50%	3.50%	13.00%	9.00%	
Sokoto State	Binji	16.00%	13.50%	14.50%	15.50%	16.00%	13.50%	14.00%	3.50%	15.00%	15.00%
	Bodinga	31.00%	9.00%	8.50%	9.50%	10.50%	12.00%	31.00%	4.00%	10.00%	9.00%
	Dange Shuni	24.00%	12.00%	12.00%	14.00%	16.00%	15.50%	24.00%	2.50%	14.00%	14.50%
	Gada	17.00%	14.00%	14.50%	14.00%	14.50%	15.50%	14.50%	4.00%	17.00%	15.50%
	Goromyo	24.00%	11.00%	13.50%	12.00%	12.50%	16.50%	24.00%	6.00%	15.00%	11.50%
	Gudu	19.50%	13.50%	12.50%	14.50%	13.50%	14.50%	19.50%	5.00%	15.50%	14.50%
	Gwadabawa	24.00%	9.00%	10.50%	10.00%	10.50%	12.00%	24.00%	6.50%	11.00%	9.50%
	Illile	18.50%	12.00%	11.00%	11.50%	11.00%	14.50%	17.50%	5.50%	18.50%	11.50%
	Isa	19.50%	16.50%	10.50%	17.00%	15.00%	18.00%	19.50%	1.50%	17.50%	14.00%
	Kebbe	16.00%	11.00%	9.00%	11.00%	12.00%	13.50%	16.00%	2.50%	11.00%	11.00%
	Kware	15.00%	11.00%	10.00%	11.50%	11.50%	15.00%	11.00%	3.50%	10.00%	10.00%
	Rabah	27.50%	20.00%	16.00%	19.50%	18.50%	27.50%	20.00%	9.00%	22.00%	20.50%
	Sabon Birni	23.50%	15.50%	16.00%	15.00%	15.50%	23.50%	19.50%	4.50%	17.00%	14.50%
	Shagari	16.50%	9.00%	8.00%	9.50%	9.50%	15.00%	16.50%	5.00%	10.00%	8.00%
	Silame	23.50%	10.50%	7.00%	9.00%	10.50%	11.50%	23.50%	7.00%	9.50%	9.00%
	Sokoto North	26.50%	18.50%	10.50%	15.50%	19.50%	19.00%	26.50%	7.50%	17.00%	14.50%
	Sokoto South	24.00%	17.50%	17.50%	13.00%	13.50%	22.50%	12.50%	7.00%	24.00%	21.00%
	Tambuwal	16.00%	10.00%	10.50%	13.00%	15.00%	16.00%	14.50%	4.50%	10.00%	10.50%
Tangaza	22.00%	13.50%	14.00%	13.50%	13.50%	14.50%	22.00%	5.50%	15.00%	15.00%	
Tureta	22.00%	20.00%	17.00%	18.50%	15.00%	17.50%	22.00%	4.50%	16.00%	14.00%	
Wamakko	18.50%	13.00%	13.50%	11.50%	16.50%	18.50%	14.50%	3.00%	9.50%	8.50%	
Wurno	16.50%	13.50%	16.50%	11.50%	14.50%	16.50%	15.50%	8.00%	15.00%	10.50%	
Yabo	32.00%	14.50%	14.50%	13.00%	13.00%	26.50%	32.00%	4.00%	11.50%	12.00%	
Zamfara State	Anka	29.50%	16.50%	17.50%	15.00%	18.50%	18.00%	29.50%	13.00%	16.50%	14.50%
	Bakura	18.50%	13.50%	12.50%	18.00%	17.00%	18.50%	18.00%	11.00%	15.50%	15.00%
	Birnin Mageji-Kiyaw	16.00%	16.00%	11.50%	13.50%	14.50%	15.00%	13.50%	5.50%	14.50%	12.50%
	Bukkuyum	39.50%	27.00%	24.00%	24.50%	24.50%	24.00%	39.50%	2.00%	23.00%	20.00%
	Bungudu	18.00%	14.50%	12.50%	14.50%	14.50%	16.50%	18.00%	12.00%	16.50%	16.50%
	Gummi	28.00%	22.50%	17.50%	13.50%	17.50%	20.00%	28.00%	2.00%	15.50%	14.00%
	Gusau	18.50%	12.50%	8.50%	10.50%	10.50%	12.50%	18.50%	7.00%	17.00%	10.50%
	Kaura Namoda	20.50%	15.50%	14.50%	15.50%	19.00%	20.50%	18.00%	6.50%	20.50%	14.00%
	Maradun	25.00%	15.50%	15.50%	17.00%	18.50%	18.00%	25.00%	3.50%	17.50%	15.50%
	Maru	30.50%	30.50%	29.00%	29.00%	30.50%	27.00%	30.50%	2.00%	26.50%	26.50%
	Shinkafi	19.50%	19.50%	13.50%	12.50%	16.50%	19.50%	15.50%	6.00%	16.50%	13.50%
	Talata Mafara	19.50%	15.50%	14.00%	19.50%	14.50%	18.50%	17.00%	10.50%	17.00%	14.00%
Tsafe	28.00%	21.50%	16.00%	17.50%	20.00%	24.00%	28.00%	5.00%	20.00%	17.00%	
Zurmi	29.50%	17.50%	15.50%	15.00%	18.00%	17.50%	29.50%	5.00%	16.50%	16.50%	