Terms of Reference

REACH NUTRITION DATABASE/GIS SPECIALIST (NDS) IN NIGERIA
(Reference: 21/NGA/NGIDS01)

BACKGROUND ON IMPACT AND REACH

REACH was born in 2010 as a joint initiative of two International NGOs (IMPACT Initiatives and ACTED) and the United Nations Operational Satellite Applications Programme (UNOSAT). REACH's **purpose** is to promote and facilitate the development of information products that enhance the humanitarian community's decision making and planning capacity for emergency, reconstruction and development contexts. REACH facilitates information management for aid actors through three complementary services: (a) need and situation assessments facilitated by REACH teams; (b) situation analysis using satellite imagery; (c) provision of related database and (web)-mapping facilities and expertise.

IMPACT Initiatives is a humanitarian NGO, based in Geneva, Switzerland. The organisation manages several initiatives, including the REACH Initiative. The IMPACT team comprises specialists in data collection, management and analysis and GIS. IMPACT was launched at the initiative of ACTED, an international NGO whose headquarter is based in Paris and is present in thirty countries. The two organizations have a strong complementarity formalized in a global partnership, enabling IMPACT to benefit from ACTED's operational support on its fields of intervention.

We are currently looking for a REACH Nutrition Database/GIS Specialist (NDS) to support our team in Nigeria.

Position:	**REACH Nutrition Database/GIS Specialist**
Contract duration:	6 months
Location:	Dakar, Senegal
Start Date:	ASAP

COUNTRY PROFILE
In North East Nigeria (NEN), the ongoing crisis continues to have a profound impact on the population, leading to displacement both within and out of the region and high rates of unmet needs among internally displaced persons. The conflict additionally exacerbates prior unmet needs among non-displaced and host communities. While the primary driver of the conflict remains violent conflict, including ISWAP (Islamic State West Africa Province), JAS (Jama'atu Ahlis Sunna Lidda'awati wal-Jihad) and associated armed opposition groups (AOGs), other underlying factors, such as climate change, poverty, and disease outbreaks, exacerbate need and further complicate aid delivery.

Against the backdrop of this protracted crisis, the humanitarian situation in Northeast Nigeria remains one of the world's most severe. Out of the Northeast's Borno, Adamawa, and Yobe (BAY) state's total population of

13 million people, an estimated 8.7 million are in need of humanitarian assistance[1]. Borno state remains the epicenter of the crisis, containing over 80% of the region's over 2 million internally displaced persons[2]. Major incidents throughout 2021 have led to continued mass displacements and severely affected the provision of humanitarian assistance in the region.

The sudden influx of arrivals added strain to the existing infrastructure of the humanitarian community, resulting in high rates of unmet needs, overcrowding in camps, and exposure to protection risks for vulnerable groups. The intensity of needs within Maiduguri and the instability of the security situation in more remote regions has resulted in increased focus on populations in accessible areas; however, about the population in the inaccessible is presumed to have even greater needs.

The population in inaccessible areas is estimated to contribute 11% (1m of the 8.7m) of the people in need of humanitarian assistance[3]. Very little is known about the specific conditions and needs of the populations living in these areas, but they are presumed to have little mobility, limited essential services, and little or no access to humanitarian aid. The same threats that severely limit the ability of humanitarian actors to conduct thorough assessments also immediately affect the population living in the region. REACH-supported Famine Monitoring System indicates that only 23% of households in inaccessible areas have access to health facilities, 30.7% can access markets, 37% have acceptable Food Consumption Scores and 64% use improved water sources[4].

As such, the need for evidenced-based Humanitarian Aid and information on populations in both accessible and inaccessible areas is paramount to a coordinated response. REACH has been present in Nigeria since 2017, providing a growing evidence base for humanitarian response planning through sectoral, multi-sectoral and area-based assessments as well as information management services. In 2021, REACH is looking to continue to provide the humanitarian community with relevant and reliable information to strengthen strategic programming and needs-based targeting in Northeast Nigeria.

More information can be found here: https://www.impact-initiatives.org/where-we-work/nigeria

NUTRITION SITUATION AND PROJECT PROFILE

Based on the nutrition surveillance and information management systems in Nigeria, the North Eastern and Western parts are worst hit by malnutrition. The National Nutrition and Health Survey that was conducted by the Federal Ministry of Health, National Population Commission and UNICEF in 2018 revealed that Global Acute Malnutrition (GAM), stunting and underweight in the North East and West were much higher compared to national rates; for example, while the national stunting rate was 32%, it was 42.8% in North East and 50.4% in North West[5]. For this reason, nutrition surveillance systems and interventions are currently concentrated in the two regions.

As the key player in nutrition information management, UNICEF takes leadership in supporting government and non-government agencies in North East Nigeria to conduct nutrition surveillance activities through four components. This responsibility will be transferred to REACH in 2022. The four components are; conducting biannual Nutrition and Food Security Surveillance (NFSS) SMART surveys, sentinel surveillance through the Flexible Integrated and Timely surveillance (FITS) in Borno state, screening for malnutrition at arrival points

[1] OCHA, Humanitarian Needs Overview, 2021
[2] IOM, Displacement Tracking Matrix, round 37 August 2021
[3] OCHA, Humanitarian Needs Overview, 2021
[4] https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/fms_bullet_august_2021_final_version.pdf
[5] https://www.unicef.org/nigeria/media/2181/file/Nigeria-NNHS-2018.pdf

through the Displacement Tracking Matrix (DTM) and the Famine Monitoring System (FMS); and collation of data to feed the Cadre Harmonise (CH) and IPC acute malnutrition (IPC AMN) analysis workshops. A brief description of these components and their products is provided in the sections below.

Nutrition and Food Security Surveillance (NFSS) system: Since its inception by UNICEF and state governments in 2016, ten rounds of data collection have been conducted through the NFSS in North East Nigeria. NSFF is done collaboratively with the National Bureau of Statistics (NBS) and involves data collection in 10 domains using the SMART methodology. Validated results from the most recent round (round 9) indicate high Global Acute Malnutrition (GAM) prevalence in Yobe (12.3%) and Borno (10.0%) states with majority of the malnourished children residing in Southern Yobe, Maiduguri Metropolitan City (MMC) & Jere, Southern Adamawa, Northern Adamawa and Central Yobe. In regards to Infant and Young Child Feeding practices (IYCF), although the prevalence of continued breastfeeding was high (80%), only half of the children aged 0-5months were exclusively breastfed and less than 1% of those aged 6-23 months met the Minimum Acceptable Diet (MAD)[6]. Besides nutrition, NFSS captures complementary information on mortality, child health (vaccination, Vitamin A supplementation, deworming and morbidity), women's nutrition, water sanitation and hygiene (WASH).

Sentinel surveillance system in Borno state. This system was established with an objective of monitoring surges in cases of acute malnutrition, diarrhoea and measles among children below 5 years. It involves continuous data capture in selected community sites (wards) and health facilities with Community Management of Acute Malnutrition (CMAM) programs. Data collection is done by an established surveillance structure with trained teams at ward, LGA and state level. Thresholds for cases of malnutrition and targeted diseases are set, beyond which alerts are identified and reported. The findings from this system feed the quarterly Flexible Integrated and Timely (FIT) bulletin. Based on the June 2021 FIT bulletin, the GAM and SAM prevalence by MUAC among children 6-59 months was 6.0% and 0.8% respectively with two-fold increase among children 6-23months. Out of the 23 LGAs covered, 12 had positive alerts (deteriorating rates) for GAM rates and two LGAs registered increased diarrheal cases in comparison to the previous quarter[7].

Screening for malnutrition at arrival points: To enable data collection from the inaccessible areas, multiple partners conduct interviews and nutrition screening at designated arrival points for the refugees and Internally Displaced Persons (IDP). This supports generation of evidence to classify these areas using the IPC criteria. Through the Displacement Tracking Matrix (DTM) assessment and Famine Monitoring system, partners are able to gather information from inaccessible areas in North East Nigeria.

DTM is led by the International Organisation for Migration (IOM). With support from UNICEF, regular screening for malnutrition is conducted and data is consolidated in the weekly Emergency Tracking Tool (ETT) of DTM. The ETT report covering the last week of August 2021 (No. 238), indicated that there were a total of 1538 new arrivals recorded at the arrival points. Out of the 116 children aged 6-59 months who were screened for malnutrition, 23 were identified as malnourished based on Mid Upper Arm Circumference (MUAC)[8].

The Famine Monitoring System (FMS) is led by the inaccessible task force which is comprised of the Federal Ministry of Agriculture and Rural Development, WFP, FAO, UNICEF, REACH and other partners. This system targets inaccessible LGAs in the BAY states even though most interviews are conducted in Borno. Data is collected on multiple indicators including anthropometry, mortality, food security, health and WASH. Data

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[6] Round 10, Nutrition and Food Security Surveillance report December 2020
[7] https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/fit_alerts_report_june_2021_0.pdf
[8] https://dtm.iom.int/reports/nigeria-%E2%80%94-emergency-tracking-tool-report-238-23-29-august-2021

analysis is conducted on a monthly basis and results summarized in a bulletin that is published for public consumption. Findings from August 2021 FMS revealed that 63% of HH in inaccessible areas struggled to have sufficient food intake and 80 percent experienced crisis or higher levels (CH Phase 3 and above) of food deprivation and hunger. The overall GAM and SAM rates were 20.1% and 7.3% respectively, which is classified as Phase 4 using the IPC AMN criteria. The most affected LGAs were; Bama, Damboa, Madagali, Konduga, Gwoza and Kukawa.

Cadre Harmonisé (CH) and IPC AMN analysis workshops: These workshops are organized biannually by the food security and nutrition clusters and are attended by technical teams that perform secondary data analysis using the products from the above components and other data sources. The objective of the analysis is to generate reliable evidence that is used to classify LGAs according to the acute food insecurity and malnutrition situation. The most recent IPC AMN analysis conducted in February 2021 (valid from August 2020-September 2021) suggested that over 1 million children between 6-59 months and 123,000 women were malnourished and in need of urgent nutrition treatment. It also identified the key drivers of malnutrition as; high morbidity, household food insecurity, sub-optimal IYCF practices, poor WASH conditions all of which have been exacerbated by the COVID-19 pandemic.

With funding from UNICEF and in collaboration with the BAY state governments and relevant partners, REACH will provide technical leadership during the coordination, management, implementation and development of products from the above mentioned nutrition surveillance components for one year.

RESPONSIBILITIES

Under the direct line management of the REACH Nutrition Surveillance Specialist and in close coordination with the GIS Officer and Nutrition Assessment Officers, the NDS will be responsible for leading all processes related to management of nutrition data including; cleaning and analysis and product creation (with R and ENA for SMART) in North East Nigeria. They will ensure regular communication with nutrition surveillance team and to support the ongoing assessments accordingly, and liaise with IMPACT HQ on data analysis validation.

In his/her mission, the NDS will be hosted by ACTED and will fall under the responsibility of ACTED's Country Director and his/her delegates. S/he and will fully abide to ACTED's Security, HR, Administration and Logistics rules and regulations.

Functions
The Nutrition Data/GIS Specialist will fulfill the following functions:

1. **Development and Maintenance of Nutrition Data Cleaning, Processing, and Analysis Systems**
   - Under direction from the Global Nutrition Assessment Specialist, developing workflows in R to automate and facilitate the analysis of nutrition and health data in-line with global standards.
   - Development, creation and running of rmarkdown report files to summarize nutrition data quality issues for different activities, as well as summarize nutrition and health 'alerts' for sharing with external partners.
   - Creation and maintenance of an external facing dashboard summarizing nutrition data across all surveillance activities (NFSS, FIT Surveillance, New Arrival Screening) for partners.
   - Creation and maintenance of an internal facing dashboard for assessment team use to interactively explore data quality across multiple activities (NFSS, FIT Surveillance, New Arrival Screening) for REACH assessment staff. Under the direction of the Nutrition Surveillance Specialist, development of

Standard Operating Procedures (SOPs) for data storage and management, cleaning, processing, and analysis for all surveillance activities.

- Maintain, update and expand R systems from automated data analysis and map production for NFSS reports, FITS bulletins and other products as relevant.

2. Technical Support

- Compile results tables that will be used to feed reports/bulletins and data sheets for the IPC/CH analysis workshops

- Support the GIS functions of the nutrition surveillance system such as geospatial sampling, creating enumeration area maps and mapping nutrition findings especially those from the IPC AMN workshop.

- Strengthen the technical capacity of the nutrition surveillance team to collect and manage data, this may involve facilitating regular in-house training and mentorship events

- Take lead in the management of nutrition data including cleaning and analysis of NFSS, FMS, ETT and FIT data

- Ensure quality during planning, data collection and at analysis stage, this may include performing quality audits or daily plausibility checks and designing an effective data quality feedback mechanism.

- When necessary, perform advanced data management processes such as trends analysis, bi-variable analysis and mapping/identification of correlations among contributory factors.

- Support the surveillance teams to troubleshoot on technical challenges encountered during mobile data collection

- Under direction from the Nutrition Surveillance Specialist, serve as the focal point for statistical analysis and quantitative reporting on REACH nutrition assessments.

- As the custodian of nutrition data, the NDS will ensure that both internal and external stakeholders in the nutrition surveillance system strictly adhere to data protection protocols in place.

3. Line Management

- The NDS will work under the direct management of the Nutrition Surveillance Specialist, and receive further technical support from the Global Nutrition Assessment Specialist and IMPACT HQ research team.

- The NDS will line manage relevant database and GIS officers under the nutrition surveillance activities.

4. Other responsibilities

- The NDS will act as the focal person for data management and analysis for the nutrition surveillance system and thus will constantly liaise with Information Management Officers in the health and nutrition sectors of NGOs, clusters, NBS, SPHCDA and UN agencies in North East Nigeria

- On request from external partners such as the Nutrition Cluster, donors, etc., the NDS may be tasked with preparing data exports and summary reports on an ad hoc basis.

- Internally, the NDS will work closely with the Database Officer, GIS officer and nutrition assessment officers, to provide analytical support to the aassessment team and Country Coordination. The NDS will also liaise with Global Health and Nutrition Assessment Specialist for technical backstopping. These

relations will also extend to ACTED country staff including Program Development, AMEU and Area Coordinators.

- The NDS will maintain the strictest confidentiality of data and processes. He/she will actively take measures to prevent the unauthorized sharing of information and data.

- The staff member is responsible for ensuring that all relations with the communities REACH and partners work are conducted in a respectful and consultative manner. Due attention must be paid to ensuring that communities are adequately consulted and informed about REACH programme objectives, activities, beneficiary selection criteria, and methodologies. This is the responsibility of every REACH staff member.

REQUIREMENTS

- Master's degree in Biostatistics, Statistics, Public Health, Nutrition, Epidemiology, data sciences, M&E, computer programming or related discipline with strong GIS skills
- At least 4 years of experience in management of data in the humanitarian context **is required**, familiarity with management of nutrition data **is preferred**.
- Advanced experience analysing complex data with R **required**;
- Demonstrated experience creating rmarkdown reports with R **required**;
- Demonstrated experience creating interactive dashboards with shiny in R **required**;
- Demonstrated experience with functional programming in R **required**;
- Demonstrated experience using dplyr and ggplot2 packages in R is **required;**
- Strong analytical skills, including the ability to identify outliers and key trends, and to situate findings in a wider context **required**;
- Experience with Geographic Information Systems (QGIS or ArcGIS) **a strong asset**;
- Prior training and experience in conducting nutrition surveys using the SMART methodology and analysing nutrition data using the ENA for SMART software is **an asset**;
- Knowledge of other statistical programming packages such as STATA, Epi Info and Tableau is **an asset**;
- Previous experience with mobile data collection (ODK, ONA, KOBO) is **an asset**;
- Knowledge of the Adobe Suite, particularly Illustrator and InDesign is **an asset**;
- Ability to operate in a cross-cultural environment requiring flexibility
- Strong organizational skills for managing large amounts of data;
- Openness to feedback and willingness to learn;
- Familiarity with the aid system, and understanding of donor and governmental requirements;
- Prior knowledge of the North East Nigeria context is an asset;
- Fluency in English is required
- Ability to operate Microsoft office packages specifically Word, Excel and Power point is required
- Ability to work independently to short deadlines and high research standards.