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# TERMS OF REFERENCE

**Independent Study for Action Against Hunger’s Intervention**

**GROUNDWATER MONITORING SCOPING AND FEASIBILITY STUDY IN NORTH EAST NIGERIA**

**Project and Study Summary Table**

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| **Reference of the Assessment** | 031-00665 |
| **Project Name** | Integrated Multi-Sectoral Humanitarian Response in North Eastern Nigeria |
| **Sector** | WASH |
| **Donor & Contribution/s** | OFDA |
| **Mission administering the Project** | Action Against Hunger Nigeria |
| **Responsible ACF HQ** | Action Against Hunger France |
| **Study Type** | Consultancy for study: Ground Water Monitoring Study |

1. **PROJECT BACKGROUND**
   1. **Rationale for the Project**

In 2019, 7.1 million people (2.3 million girls, 1.9 million boys, 1.6 million women and 1.3 million men) are in need of humanitarian assistance in north-east Nigeria as a result of a crisis that is now in its tenth year. Across the three affected states of Borno, Adamawa and Yobe (BAY), 7.1 million people are estimated to be in need of humanitarian assistance in 2019 out of the total population of 13.4 million.

To combat the groundwater monitoring challenges in northeast Nigeria, in December 2018 Action Against Hunger met with the Nigeria Hydrological Service Agency (NiHSA). The objective was to review the groundwater monitoring system set up, gaps and opportunities. NiHSA has eight (8) Area Offices in each of the eight (8) Hydrological Areas in the country, with two (2) field offices operating under each Area Office; however, not all the field offices are operational. In the northeast Hydrological Area (Basin Chad) NiHSA has an area office in Maiduguri town and a field office in Damaturu town.

* 1. **Geographical scope covered by the Analysis**

The study will focus on All LGAs in Borno (17) and Damaturu in Yobe state.

1. **PURPOSE AND OBJECTIVES OF THE STUDY**
   1. **Objectives of the study**

General objectives:

Development of hydro-climatic monitoring strategy for North East Nigeria. The priority is identifying the equipment and locations of new monitoring equipment that will complement existing database and monitoring instruments. The project supports a broader program to improve ground water monitoring in the region with the following objectives

* To establish data monitoring surveillance system to support the early warning system and the national emergency preparedness plan.
* Contribute towards an understanding of trends in groundwater levels over time in Borno and Yobe states and support the general national ground water surveillance system.
* Inform decision-making by government, donors, and NGOs related to the development of new boreholes and management of existing boreholes.
* Train Government, NGOs and decisions makers on, best drilling practice, borehole management, hydrogeological monitoring and sustainable groundwater management
* To contribute to the development of early warning networks system at national level.
* To contribute to the development of “Nationwide Arsenic and other harmful chemicals mitigation plan”

Specific objectives:

* Complete hydrogeological desk study of the target region outlining main aquifer systems, data sources and existing monitoring data. Including geological synthesis, aerial photo analysis and general outline of structures and ground water flows with a concept model for the region,
* Complete capacity assessment of academic partners with capacity to support the ground water project
* Provide desk review of lessons learnt from other monitoring systems and recommendations for North East Nigeria.
* Development of ground water monitoring strategy defining new locations for new materials agreed with government stakeholders
* Develop ground water and water quality model based on available data
* Develop large scale Hydro geophysical /pumping test investigation plan for the region to support future sustainable abstraction plan.

1. **Profile of the Evaluator**

The study will be carried out by a consultant with the following profile:

* More than seven years Professional experience in ground water monitoring, surveillance systems and hydrogeology
* Demonstrable experience in the establishment of ground water monitoring networks and ground water modelling
* Ideally experience working with Telemetry
* Extensive experience in conducting similar feasibility and needs assessment for water supply and Sanitation
* The consultant firm should have good reputation in the WaSH sector or similar fields of study;
* The firm has good experience in the research and show his reputation;

1. **Application procedure**

All interested consultants should send expression of interest electronically **on or before 24th November 2019** to: [supply.ng@acf-international.org](mailto:supply.ng@acf-international.org) in order to receive the full ToR. **Proposal without request of the full ToR will not accepted.**