Terms of Reference

**General Information**

|  |  |  |
| --- | --- | --- |
| 1. | Project title:  | Building Sustainable Livelihoods to Promote Social Cohesion and Peaceful Co-Existence of Vulnerable Populations in Plateau State of Nigeria |
| 2 | Project locations | Bassa, Riyom, and Wase LGAs. Neighbouring locations maybe highlighted if deemed necessary |
| 3. | Activity | Feasibility study on other hydrological parameters of the project location, rainwater harvesting, hydrology and the full technical dams design,  |

**Norwegian Refugee Council**

**PLATEAU STATE**

**APRIL 2024**

# ORGANIZATION BACKGROUND

Norwegian Refugees Council (NRC) is an international, independent, non-profit and humanitarian non-governmental organization, existing under the laws of Norway with Headquarters at Princess Gate 2, Oslo, Norway and while in Nigeria Offices at Plot 69,1st Avenue, Gwarimpa, Abuja, Nigeria.

The Norwegian Refugee Council (NRC) works to protect the rights of displaced and vulnerable people during crisis. Through our programmes, we provide assistance to meet immediate humanitarian needs, prevent further displacement and contribute to durable solutions.

In Nigeria, NRC provides assistance through different core competencies, including thematic areas such as Information, Counselling and Legal Assistance (ICLA), Education including Youth programme, Livelihoods and Food security, Shelter and Settlements, Water, Sanitation and Hygiene promotion (WASH). Protection from violence, Rapid response mechanism (RRM) and Coordination and advocacy. Additionally, we work on building self-reliance and enabling pathways to durable solutions as per the 2022 – 2025 country strategy.

We operate in 3 States in Northeast and Central Nigeria in over 49 target locations across 3 Area Office Maiduguri (Borno State), Yola (Adamawa) and Jos, Plateau State – Northeast and Central Nigeria respectively.

## 1.1 Context analysis

Plateau State is faced with several humanitarian needs due to various factors including intercommunal violence, displacement, and economic challenges. With women and children being the most severely affected of these, about one-third are children aged 0 to 5 and 10% are widows. The protracted conflict in Plateau State, has restricted communities from accessing livelihoods, markets, and income-generating opportunities. Conflict, inflation, and occasional natural disasters, such as flooding remain key drivers for food and livelihoods insecurity. Additionally, with the Nigerian economy only recovering slowly and IDPs bringing additional pressure on already overstretched resources in the host communities, any decent and sustainable livelihoods opportunities are scarce. As IDPs run out of the small savings they have (if any) to cover their basic needs, there are not enough resources to restore their livelihoods.

In Plateau state, key findings from the MSNA (2023) conducted by NRC, revealed that households face limited capacity to both produce and procure food stemming from high cost, the destruction of production inputs, and constrained market access. The resource-based conflict amongst livestock herders restricts access to free range grazing lands and weather hazards, changing rainfall pattens and poor agricultural practices are constraining access to food and income productivity. Also, Climate-change related challenges exacerbated the situation, impacting agriculture, livelihoods, and community infrastructure. According to Nigerian Meteorological Agency (NimNet), Seasonal Climate Prediction (SCP) Report for 2023, Plateau state was predicted to receive rainfall amounts between average and above average and onset will be near long term average and flash flooding expected in areas which will receive normal to above normal rainfall amounts.

Plateau State is located in the central region of Nigeria and is known for its diverse ethnic composition, scenic landscapes and agricultural potential. However, the state has experienced a range of humanitarian challenges over the years. Plateau State faces a complex humanitarian context characterised by ongoing conflict, displacement, protection concerns and a range of unmet basic needs. the protracted conflict in Plateau state which could be traced back to 2001, 2004, 2008, 2010 and 2015 has resulted in significant large scale violent attacks leading to multifaceted humanitarian needs such as livelihood and food security which is a major concern as farming activities have been disrupted and access to farmlands is limited due to insecurity, the conflict also had a profound economic impact on livelihood and income generation because many households have lost their sources of income particularly those dependant on agriculture and trade while dwindling economic opportunities has led to increased poverty and vulnerability, education facilities have been damaged or closed down affecting children's education, and limited WASH facilities. many people have been displaced from their homes, while displaced population especially women and children are often vulnerable to various forms of exploitation, abuse and violence protection services are essential to safeguard their rights and well-being.

## 1.2 Project Description

With the funding from the Federal Ministry of Economic Cooperation and Development, Germany (BMZ). NRC is implementing a- 24 months project Titled: **Building sustainable livelihoods to promote social cohesion and peaceful coexistence of vulnerable populations in Plateau state.**  To address livelihoods gaps and promote peaceful co-existence between herders and farmers, the proposed project will adopt a holistic, multisector approach to ensure the strengthening of livelihoods through improving access to livelihoods, infrastructure, and economic empowerment opportunities. Supporting herders and farmers and well as youth and women with economic access to economic empowerment will promote peaceful coexistence and reduce vulnerability of the groups who have been adversely affected by conflict. Specifically, NRC’s intervention will strengthen livelihoods and youth education programming to facilitate economic and youth wellbeing.

Key actions that NRC will implement to enhance improved livelihoods opportunities for affected groups will include provision of productive inputs for both farmers and herders to facilitate increased and sustained productivity, value chain strengthening income generation activities, protection of livelihoods and financial inclusion. These livelihoods actions will be complemented by ensuring that the target population’s capacity to manage and resolve disputes is strengthened, youth receive skills that will enable them to access both formal and informal employment, water for agriculture and livestock is availed whilst access and ownership of land is enhanced. The integrated intervention will target vulnerable conflict-affected herders and farmers with special emphasis on women and youths, whilst ensuring inclusion of persons with disabilities and minority groups.

* **Outcome**
* Increased and sustained productivity to vulnerable farmers and herders through improved access to water harvesting solutions, water storage, distribution, and sanitation infrastructures.

## 2.0 Overall Objective (Impact):

**Impact** – Contribute to improved living standards through strengthened livelihoods, protection, and improved resilience for displacement affected populations in Plateau State by 2026

## 2.1 Specific objective of the feasibility study on hydrological parameters of the project location, rainwater harvesting, hydrology and other technicalities.

The specific objective of the assessments of the catchment areas activities will help identify ideal locations to facilitate the construction of three rainwater harvesting systems that range from sand dams and diversion channels to create a surplus of water to be channelled to nearby fields through small-scale irrigation systems.

The feasibility study will be more focused on outcome two,increased and sustained productivity to vulnerable farmers and herders through improved access to water harvesting solutions, water storage, distribution, and sanitation infrastructures. The infrastructures should have an element of flood protection in the design.

The project will support the community to acquire access to water harvesting infrastructures that will supply water to the farmers and animal watering points. The water harvesting infrastructure will incorporate water storage and distribution channels including animal watering troughs and other designated points with support from the community members. The engagement of the community in Natural Resource Management (NMC) will contribute to reduced conflict among targeted communities in Plateau State and improve access to livelihoods and integrated water management systems. The project will also aim to provide tailored and holistic assistance to targeted participants through an integrated LFS-WASH approach to address one of the main drivers of conflict, which is competition for land, water, and natural resources in collaboration with the Plateau State Water Supply and Sanitation Agency (PRUWASA), and the Ministry of Water Resources and Energy, and the various Local Government Department of Water Resources and Sanitation. NRC will identify six (6) catchment areas to conduct the primary feasibility studies, out of which the three (3) most suitable locations will be selected to implement new or enhance existing water management systems to improve availability of water for agriculture and animal consumption.

The feasibility study will also provide vital information in development of the appropriate mitigation measures that will also protect the proposed sand dams/water harvesting infrastructure from adverse effects of sedimentation. The findings must include, but not necessarily be limited to, the following:

1. Ensure that the selected sites will be suitable from a legal and landownership point of view.
2. Recommend appropriate and safe site for the water harvesting infrastructure,
3. Estimate timeframe required to construct each water harvesting infrastructure using simple machinery, hand tools, and community people participation.
4. Determine the existing ground elevations for various points at the identified sites and propose the most valued for money location (Less excavation, Depth Vs evaporation surface, loss per infiltration/Aquifer recharge, gravity fed irrigation system, etc.)
5. Determine the final ground level before excavation of the dam and give excavation volumes (to determine the volume of earth to be excavated. To specify volume by soil categories (Soft, medium hard, hard). Do cross that information with topography data to identify the less excavation possible. Do consider the reuse of existing soil for embankment construction.
6. Determine and describe physical and hydrological characteristics of the soil on which the dams are to be situated (study of the foundation condition including soil category under the dam (permeability Vs loss for aquifer recharge), soil strength to support the dam and risk of landslide, underlying rock materials that may affect quality of drinking water, etc.
7. Determine water deficit (human, agriculture, livestock, businesses) by considering needs and existing water sources as well as estimated demand growth for the next ten years.
8. Reservoir capacity investigation: Dimension of the dams including embankment length and elevation by considering depth Vs minimum evaporation surface, water demands, floods control, etc.
9. Propose technical solutions and design (Inlet, sedimentation reduction system, dams, valves room, overflow spillway, check dam, flushing/cleaning system, irrigation system, etc.) Ensure that the spillway is connected to a natural drainage system and will not contribute to floods. Provide solution for reducing the risk of floods downstream if necessary. Include protection measures against potential pollution/contamination.
10. Build a hydrological catchment model: Catchment’s characteristic, runoff rates and infiltration rates of the catchments and dam, loss per evaporation before and after evaporation reduction measures are taken.
11. Provide recommendation and cost solution to reduce loss per evaporation (Peripherical and surface shading, reduce evaporation surface, etc.)
12. Describe the surrounding topography and land use characteristics and proximity to residential neighbourhoods from the proposed water dams’ site, including past land use patterns, whether agriculture, forestry etc
13. Determine and describe the overall direction of surface-water flow downstream of the proposed location and provide recommendation and design for water distribution system for irrigation and livestock. Prioritize gravity fed options but provide recommendation of improvement with solar pumping system is relevant for a certain category of target.
14. Analyse meteorological and hydrological data (including historical, hydrograph and unit hydrograph) on rainfall, surface runoff (flood and monthly water availability for irrigation), vegetation cover & infiltration rates, temperatures, humidity, evaporation, sedimentation rate etc.
15. Complete an assessment on the environmental and socioeconomic impact (risks, opportunities & recommendations)
16. Recommend on safety measures to be taken during the construction period.
17. Provide a plan for operation and maintenance with clear division of works to be sub-contracted and accomplished by community labour work. And provide a list of recommended training to the management committee and operators. To include the role and responsibilities of authorities.
18. Review of the local material available at the dam site (if relevant)
19. Analyse the legal framework and provide recommendation for the construction of such dams.
20. Consider a do not harm approach in your analysis and design. (Ex. The system should not deprive community downstream of water usually used for their needs, the overflow should not flood people, the water sharing process should not create or exacerbate tension between users and communities, etc.)
21. Comprehensive costed bills of quantities (BoQ) and detailed contour plan (topography, plan), sections and details in electronic format for all component of the system, workplan, engineering specifications and build full tender dossier.
22. Sustainability suggestions for the community and water management committee’s
23. Select best location considering all parameters.

Technical evaluation will be conducted after screening of proposals based on the following preliminary examination, eligibility, and qualification criteria – technical and financial evaluation.

|  |  |  |
| --- | --- | --- |
| **No** | **Administrative Check Criteria (Pass/Fail)** | **Provided** |
| **Y** | **N** |
|  | Certified copy of certificate of registration/Incorporation |  |  |
|  | Certified copy of valid Tax compliance certificate. |  |  |
|  | Certified copy of PIN/VAT certification |  |  |
|  | Proof of registration with National Construction Authority in construction  |  |  |
|  | Validity of offer – 90 days from the date of submission deadline |  |  |

|  |  |  |
| --- | --- | --- |
|  | **Technical Proposal Criteria** | **Score weighting** |
|  | Not more than 6 pages of profile detailing qualifications, credentials, and experiences of the bidder | 5 |
|  | Conduct meetings with community leaders from Bassa, Riyom, and Wase LGAs project locations. These meetings should be minute and shared with the client. | 5 |
|  | Review flood patterns and hydrological patterns of the project areas. | 5 |
|  | Surveying to establish appropriate dimensions and safe water levels for the proposed water dams.  | 5 |
|  | Design of the Dams and Check Dam (shall include **drawings**) with comprehensive BoQ. | 10 |
|  | The designs specifications would be guided by the context and appropriate dam dimensions of not less than (15 x 15 x 5m) line with 0.5m thick gabions, well compacted with cement and seal with high quality tarpaulin underground and the perimeter – wall. | 10 |
|  | Characteristics of the design and comprehensive bill of quantities (BoQ) and recommendations shall include but not limited to the following. * Water saving approach.
* Low-cost technology
* Easy to maintain
 | 10 |
|  | Identify and design areas to benefit from gabions and animal watering points. | 10 |
|  | Develop workplan  | 5 |
|  | Support in identifying empowerment areas and entrepreneurial skills to support livelihood of the community members especially the youth and vulnerable women groups. | 5 |
|  | **Financial Evaluation**  |  |
|  | Financial Offer | 30 |

## 2.2 Scope of the Work

The consultant will be expected to review and provide a report with the following elements captured.

* Review of previous studies and environmental background of the area
* Conduct meetings with community leaders from Bassa, Riyom, and Wase LGAs project locations. These meetings should be minute and shared with the client.
* Review flood patterns and hydrological patterns of the project areas.
* Surveying to establish appropriate dimensions and safe water levels for the proposed water dams.
* Design of the Dams and Check Dam (shall include **drawings**) with comprehensive BoQ.
* The designs specifications would be guided by the context and appropriate dam dimensions of not less than (15 x 15 x 5m) line with 0.5m thick gabions, well compacted with cement and seal with high quality tarpaulin underground and the perimeter – wall.
* Characteristics of the design and comprehensive BoQ and recommendations shall include but not limited to the following:
* Water saving approach.
* Low-cost technology
* Easy to maintain.
* Soil Testing to establish the water retaining capabilities of the soils.
* Identify and design areas to benefit from gabions and animal watering points.
* Develop workplan and proposed budget/BoQ for the works.
* Support in identifying empowerment areas and entrepreneurial skills to support livelihood of the community members especially the youth and vulnerable women groups.
* Provision of a list of local licensed contractors with capacity to undertake dam construction and high-level WASH infrastructure.

**3.0 Limitations**

Various conditions may limit effectiveness of these survey; namely:

* If the survey coincides with the onset of long rains, which is unpredictable, the exercise may not be completed as scheduled and the result might be erroneous or with negligible error. The consultant is advised to study water flow direction as well as floods risk. Maybe it would worth have both,
* This study focuses on majorly on technical aspects like geology, hydrology, and engineering feasibility but is limited on social, economic, and cultural factors. Such issues can significantly influence the suitability of a catchment area for constructions.
* This study heavily relies on comprehensive data regarding the catchment area, including precipitation patterns, hydrology, geology, topography, land use, and environmental factors. However, obtaining such data can be challenging due to limited access, outdated information, or inaccuracies in the available datasets. This limitation can undermine the reliability of the feasibility study's findings and lead to inferior decision-making.

**4.0 Stakeholders**

* Norwegian Refugee Council
* Plateau state Ministry of Water Resources and Energy
* Plateaus state level counterparts
* Plateau State Water Supply and Sanitation Agency (PRUWASA)
* Ministry of Agriculture and Rural Development
* Ministry of Climate Change, Environment and Mineral Resources
* Community representative,
* Women groups and Youth groups
* Famers representative, breeder’s representative,
* Communities living on the downstream of the proposed water harvesting sites (do not harm approach)

**5.0 Work Plan**

On the basis of this document, time schedule outlined includes but not limited to the following activities as shown below: Desk-review, preparation, field data collection implementation, designing and drawing of the water dams and check dams with the development of the BoQ. The assignment is expected to commence on **20th May 2024** and is expected to take a maximum of 21 days.

**6.0 Documents to be reviewed.**

The consultant shall be required to conduct documents reviews, but not limited to the following relevant documents in line with this study:

1. Topographical maps of the area
2. Consult previous study documents of partner NGOs in reference to previous hydro-geological and hydrological survey reports.
3. Current State Development plan (Plateau State)
4. Annual departmental reports – relevant ministries including Ministries of Water, Ministry of Agriculture, Environment and Natural Resources
5. Nigeria Water Act or relevant,
6. Any Public Health Reports and policies
7. Any water Catchment Management Strategy Draft, Plateau Catchment Areas (North, Central and South zones)
8. Poverty Reduction Strategy Paper, 2005 – 2008
9. Ministry of planning and National development reports and strategy papers
10. Hydrological data – Plateau state

**7.0 Logistics**

1. The successful bidder will be supported with transport to and from the project area.
2. The successful bidder shall cater for the cost of his/her personnel who will be involved under the contract.
3. The successful bidder will be required to pay for their accommodation and meals while at project locations.
4. The contractor shall be responsible for their own insurance and medical cover, including that of accompanying colleagues, while travelling, and during their stay in project locations.
5. The consultant team will be bound by the NRC code of conduct, during the period of executing the contract.
6. The successful bidder shall be guided by NRC staff in conjunction with the relevant stakeholders.

**The potential bidder’s application should be accompanied with the following attachments:**

1. Certified copy of certificate of registration/Incorporation.
2. Certified copy of valid Tax compliance certificate.
3. Certified copy of PIN/VAT certification.
4. Proof of registration with National Construction Authority in construction
5. Not more than 6 pages of profile detailing qualifications, credentials, and experiences of the bidder.
6. A comprehensive work plan and activity timetable.
7. Any other relevant materials and/or documents relating to the aforementioned.
8. Physical location and contact address of custodians of similar works done by the bidder within the last 2 years. Please note that this information and sites will be verified by NRC.