**Terms of Reference**

**Consultancy for Climate Change Impact Assessment**

**Project:** NGFM 2404

**Duration:** 45 days

**Start date: 9th August 2024**

**End date: 23rd September 2024**

**Main locations:** Plateau state (Bokkos, Bassa, Mangu, Riyom, Shendam and Wase LGAs)

1. **Background and context**

Plateau State is in the central region of Nigeria and is known for its ethnic diversity, scenic landscapes, and agricultural resources. Plateau State has experienced a range of humanitarian challenges over the years and faces a complex humanitarian context characterized by ongoing conflict, displacement, protection concerns, and a range of unmet basic needs. The protracted conflict in Plateau state could be traced back to the year 2001 has resulted in significant large-scale violent attacks leading to diverse humanitarian needs. Livelihoods and food insecurity are a major concern as farming activities have been disrupted and access to farmlands is limited due to insecurity. The insecurities had a profound economic impact on the livelihoods and income generation capacity of the local population as many households lost their sources of income, particularly agriculture and trade. Climate change further compounds these challenges. Changing rainfall patterns, increased temperatures, among other effects have significantly impacted agriculture, water resources, infrastructure, health, and biodiversity. Reduced crop yields, water scarcity, displacement, and health risks pose additional burdens on already vulnerable communities.

With the funding from the Federal Ministry of Economic Cooperation and Development, Germany (BMZ), NRC is implementing a 24-month project Titled: **“*Building sustainable livelihoods to promote social cohesion and peaceful coexistence of vulnerable populations in Plateau State”.*** NRC will be conducting a Climate Change Impact Assessment in 6 LGAs of implementation in Plateau State. This assessment seeks to generate information on climate change, its causes, and effects which can be applied to support and adapt the project to appropriate responses that meet community needs. The findings will also support evidence-based advocacy notes where a report will be presented to key stakeholders involved in public policy formulation and implementation of climate change and adaptation policies and activities drawn from public, private, and humanitarian sectors. The LGAs of implementation include Bokkos, Bassa, Riyom, Mangu, Shendam, and Wase LGAs.

1. **Purpose and Scope of the Assessment**

The purpose of the assessment is to understand how climate change has impacted and anticipated future impact on local communities’ economic activities, natural resource management, and resilience. Specific objectives include:

Understand Federal and State level governments’ climate change adaptation policies, and strategies (regulatory framework, particularly NCCAP) to identify gaps and overlaps;

Explore the risks of communities’ exposure and vulnerability to climate change hazards in the target locations and respective population groups (women, men, and youths);

Assess communities, Civil Society Organisations (CSOs), the Ministry of Environment, and the Ministry of Agriculture and Rural Development to have a knowledge gap on climate change and mitigation/adaptation capacity;

Assess the impact of climate change on communities’ livelihoods, economic activities, and natural resource management, and recommend opportunities for new / climate-resilient livelihoods;

Understand communities’ capacity to cope and mitigate climate change-induced impact and challenges in access and use of Early Warning Systems (EWS);

Identify high-impact climate change and adaptation interventions for target communities and respective groups.

**How will the Impact Assessment be used?**

Findings from the climate change impact assessment will help the project to adapt appropriate responses that meet community needs. The findings will also support evidence-based advocacy notes and the report will be presented to key stakeholders involved in public policy formulation and implementation of climate change and adaptation policies and activities. The report will provide insights on climate change and adaptation programming. NRC will use it to advocate for more support to implement activities that will improve communities’ adaptive capacity.

**Who will it be used by?**

The assessment report will be used by the NRC, GIZ and partners (stakeholders) to review and adapt activities as informed by the findings and context of project locations. Assessment findings will also contribute to refining the NRC Nigeria Country Programme’s Livelihoods & Food Security Core Competency Strategy on Climate Change and Adaptation. Partners will make use of the findings to support the implementation of activities under the current project, inform organizational strategies, and influence policy and fundraising for future similar programming. The assessment will be used to inform state and national level climate change and adaptation policy, strategy, and implementation which will serve as evidence to support such initiative.

1. **Line of inquiry**

The assessment will focus on the following key dimensions:

1. *Local awareness and perception of climate variability and trends related to climate change and*

*associated impact on natural resources.*

1. *Consequences and impact of climate change-induced disasters on food security, Livelihoods and socio-economic activities*
2. *Expectations on future changes and perceptions of vulnerability*
3. *Observations on responses and adaptation*
4. *Barriers and main constraints to adaptation to climate change and implementation of interventions to reduce vulnerability.*

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| 1. **Methodology** |
| The study will use a mixed methods approach with a focus on integration. As such data collection tools will integrate both aspects.  Qualitative   * + Interviews and FGD data 🡪 themes associated with impacts of CC, adaptive capacity, policy, etc.   + Photo voice methodology (data): a camera will be provided to community members (farmers, etc) who will be instructed to take photographs according to different thematic and variables to unpack.   + H –frame (strengths, weaknesses of coping strategies, national and State policies, etc)   Quantitative   * + Survey data (questionnaire) 🡪 covariates associated with key variables of interests.   + Integrative analyses (quantitative results + qualitative findings)   In addition to the above, it is also expected to also use the method of Multiple Lines and Levels of evidence to grasp the causal relationship between actions and effects. This will allow to review the evidence for a causal relationship between the project activities and observed/anticipated impacts of CC in terms of its strength, consistency, specificity, temporality, coherence with other accepted evidence, plausibility, and analogy with similar interventions.  **Sampling**  The suggested sampling design will be a three-stage cluster sampling using a Probability Proportional to Size (PPS) method. The first stage will include community/village segments, the second stage will target households while the third one will focus on individual units (youth, farmers, etc). Power calculations will be prioritised as follows: Power =minimum 0.8, Minimum Detectable Effect = 0.10, ICC=Integrated clustering coefficient. = 0.001  **Data Collection**  Consultant to explain his/her plan to collect data considering the sample design of the study (How primary data collection will be managed with the secondary data collection at the same time)  Primary Data will be collected at community and household level. For KII, data will be collected from key stakeholders (Ministries, UN institutions, community leaders, Universities, etc).  Before data collection, a pilot survey/pretest will be conducted to ascertain the credibility, reliability, and consistency of tools.  **Data quality assurance plan**  This will be done at each stage of the data collection process, namely the design of tools, the supervision of enumerators during the collection and cleaning of the databases.  Quality control in the field: During the field phase of the collection, the field coordinators will conduct permanent checks to ensure the consistency of the interviews, making sure that the collection procedures are well followed. |

**Analysis Plan (Data)**

Data analysis will be gender responsive and ensure requisite statistics (median, mean, Pcorr, T-tests, etc) are used to highlight trends and correlation. The scope of the study suggests conducting a regression analysis (linear or linear depending on the type of dependent variable) to analyze the variables and coefficients that contribute to explaining impacts or adaptive capacity. This will help analyze causation between different variables of interest. Different models and equations can be built based on the number of dependent variables to be explored (impacts of CC, adaptive capacity, knowledge of CCA, etc). Content analysis will be used for qualitative data.

1. **Deliverables, phases, and Timeline**

* **Deliverable 1**: Inception report with approved tools.
* **Deliverable 2**: Power point presentation of initial results
* **Deliverable 3**: final assessment report structure as follows:

1. Cover page
2. A list of acronyms and abbreviations
3. A table of contents
4. An executive summary
5. Introduction and background
6. Scope and objectives of the assessment
7. Methodology
8. Detailed Results
9. Conclusions
10. Lessons learned and recommendations.

Appendices of the report, including:

1. Terms of reference
2. Assessment matrix
3. List of documents consulted.
4. Tools

**Deliverable 4**: Database

**Deliverable 5**: Management response plan

The tentative timeline is as follows:

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| **Phase** | **Duration** |
| Scoping meetings (clarification), Logistics arrangements | 1 day |
| Inception report including tools | 7 working days |
| Finalization of the inception report | 1 day |
| Fieldwork work | 10 days |
| Data analysis and reporting | 5 days |
| Preparation of PowerPoint presentation side desk | 1 day |
| Preparation of draft final report | 4 days |
| Revision of final report and incorporating all comments | 6 days |
| Submission of final report | 2 days |

**4. Draft assessment matrix**

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| **Relevant**  **Dimension** | **Key guiding**  **Questions**  **(if applicable)** | **Indicators to explore** | **Data**  **sources** | **Data collection**  **Tools** | **Methods**  **for data**  **Analysis** |
| Perceptual Dimension. | Local awareness and perception of climate variability and trends related to climate change and  associated impact on natural resources | * Level of awareness * Level of Knowledge * soil fertility index * water availability index | Climate Change Impact Assessment | Structured survey questionnaires with a mix of closed-ended and open-ended questions | Descriptive, inferential and comparative analysis. |
| Socio-Economic Dimension. | Consequences and impact of climate change-induced disasters on food security,  Livelihoods and socio-economic | Composite indicator (agricultural production, natural resources, health, and socio-economic conditions) | Climate Change Impact Assessment | Structured survey questionnaires with a mix of closed-ended and open-ended questions | Descriptive, inferential and comparative analysis. |
| Anticipatory Dimension. | Expectations of future changes and perceptions of vulnerability | Food security  Income  Temperatures  Water  Rainfalls  Crops yields  Land use  All are to be analyzed through regressions on secondary data (panel data if available) | Climate Change Impact Assessment | Structured survey questionnaires with a mix of closed-ended and open-ended questions | Descriptive, inferential and comparative analysis. |
| Adaptive Capacity Dimension | Observations on Responses and Adaptation | Adaptive capacity index  Coping strategies index  Level of vulnerability | Climate Change Impact Assessment | Structured survey questionnaires with a mix of closed-ended and open-ended questions | Descriptive, inferential and comparative analysis. |
| Institutional and Policy Dimension | Barriers and main constraints to adaptation to climate change and implementation of interventions to reduce vulnerability | # Number/type of barriers to CCA  # Number/type of barriers to implementation of interventions  # Number/type of community-based practices to support CCA | Climate Change Impact Assessment | Structured survey questionnaires with a mix of closed-ended and open-ended questions | Descriptive, inferential and comparative analysis. |

**5. Application**

The technical and financial proposals of up to 8 pages maximum (excluding annexes) should include the following:

* Proposed methodology.
* Composition of the team.
* CV of the member(s) of the team including references.
* Detailed budget of the offer.
* An extract (3-5 pages) from similar assignments.
* A cover letter, your capacity and experience as well as your availability.