**CARE International in Sudan**

Terms of Reference (TOR) baseline and Nutrition SMART survey

**Required:** **National Consultant**

**Project Title:** ***Gender-responsive nutrition support and enabling nutrition environment for the most vulnerable women, men, boys, and girls***

**Duration of Appointment:** 45 days

Expected Start Date: 19th June 2022

1. **Background on CARE**

CARE International Sudan (CIS) has been operational in Sudan since 2009, with humanitarian, early recovery and peace building interventions. Sectors involved include Peace building, WASH, Health & Nutrition, livelihood diversification and Economic Empowerment. Through funding from Global Affairs Canada (GAC), CARE and through this project twill support lifesaving support and build the resilience of vulnerable communities, refugees and vulnerable host communities in Kassala and Gedaref States. CARE has also been supporting the urgent needs of those people by increasing access to a safe water and sanitation facilities, developing inclusive WASH management structures, and providing an emergency nutrition response through a Community Based Management of Acute Malnutrition (CMAM ) intervention for malnourished children U5 and pregnant and lactating women. CARE strongly supports and works with national NGOs, Community Based Organizations, government line ministries to achieve its strategies and goals in Sudan.

1. **Background to the project:**
	1. **Brief description of the outputs and activities:**

CARE's proposed intervention will meet the immediate humanitarian needs of 139,969 (M: 27,722, W: 52,011, B: 29,529, G: 30,707) refugees, IDPs, and host community members in South Sudan and Sudan through integrated and gender-sensitive lifesaving WASH, health, and nutrition activities. The proposed activities aim to address the urgent and immediate needs of vulnerable community members across the targeted locations. In order to provide integrated support to the most vulnerable community groups and to reduce the chance of resource-related conflict and recognize multiple vulnerabilities, the targeted populations will include refugees, on- and off-camp IDPs, and host communities. CARE will respond to the critical needs identified in the 2020 Humanitarian Needs Overview, aligned with CARE’s recent assessments & in coordination with local government and communities, prioritizing gender-sensitive interventions.

Across the project, there will be a particular focus on PLWs and children under five. In Sudan, the project will take place in five localities in Kassala state; Wedelhelio and Aroma localities, and in Gedaref state; Galabat Ash-Shargiah, Al Mafaza and Al Fashaga localities.

**Project Outcomes/results:**

|  |
| --- |
| **Ultimate Outcome**: Lives saved, suffering alleviated and human dignity maintained through nutrition interventions for crisis-affected women, men, boys and girls in Sudan and South Sudan |
| **Intermediate Outcome:** Increased and more equitable use of gender-responsive nutrition and associated health and WASH assistance for IPC 4 communities, especially children under 5 and PLW/G, in Sudan and South Sudan |
| **Immediate Outcome 1110:** Increased and more equitable access to gender responsive nutrition services for children under 5 and PLW/G in Sudan and South Sudan |
| **Immediate Outcome 1210:**Increased and more equitable knowledge of community nutrition practices, especially infant and young child feeding (IYCF-E), among caregivers, community members and nutrition/health workers in Sudan and South Sudan |
| **Immediate outcome 1310:**Increased and more equitable access to critical basic health and WASH services in communities targeted with nutrition programming (especially children under 5 and PLW/G) to reduce risk, and support successful treatment, of malnutrition in Sudan and South Sudan |

* 1. **Purpose/objectives of the baseline and SMART Survey:**

CARE in Sudan is planning to implement the project in the targeted two States, the project performance will be assessed against the targeted results in regular bases and at the end, the objective of the project baseline and nutrition SMART survey is to provide a reference point for assessing changes and impact by establishing a basis for comparison before interventions take place. The data will be collected in three sectors: WASH, health &SRHR, and nutrition.

**The purpose of nutrition SMART survey is to:**

1. Estimate the prevalence of acute malnutrition (Global and severe) amongst children aged 6-59 months.
2. Estimate retrospective crude and under five mortality rates.
3. Estimate the prevalence of morbidity among children 6-59 months in the last two weeks prior to the survey date.
4. Determine factors associated with malnutrition among children 6-59 months.
5. Estimate measles vaccination and Vitamin A supplementation proportion.
6. To establish the prevailing Infant and Young Child Feeding (IYCF) Practices.

The GAC project baseline and SMART surveyy will focus on establishing a baseline value for the indicators listed below:

|  |
| --- |
| **ULTIMATE OUTCOME** |
| **Lives saved, suffering alleviated and human dignity maintained through nutrition interventions for crisis-affected women, men, boys and girls in Sudan and South Sudan** | % Of children under 5 experiencing malnutrition: wasting |
| **INTERMEDIATE OUTCOME** |
| **1100** |  |
| **Increased and more equitable use of gender-responsive nutrition and associated health and WASH assistance for IPC 4 communities, especially children under 5 and PLW/G, in Sudan and South Sudan** | % Of targeted people (m/f) who have adopted adequate nutritional practices |
| % Of targeted people (m/f) using adequate hygiene practices |
| % Of targeted people (m/f) who report satisfaction with regards with adequacy and inclusiveness of humanitarian assistance |
| **IMMEDIATE OUTCOMES** |
| **1110** |
| **Increased and more equitable knowledge of community nutrition practices, especially infant and young child feeding (IYCF-E), among caregivers, community members and nutrition/health workers in Sudan and South Sudan**  | % Of targeted people who demonstrate increased knowledge of nutrition practices |

The below indicators will be measured at the end of the project, the baseline survey should assess the situation and provide qualitative information for these targeted indicators to support assessing the progress and compare initial situation with the final.

|  |
| --- |
| **IMMEDIATE OUTCOMES** |
| **1110** |  |
| **Increased and more equitable access to gender responsive nutrition services for children under 5 and PLW/G in Sudan and South Sudan** | # People (PLW, girls and boys) who obtained nutrition support from CARE. |
| # People who obtained cash or voucher assistance from CARE to support access to nutritious food. |
| **1120** |  |
| **Increased and more equitable knowledge of community nutrition practices, especially infant and young child feeding (IYCF-E), among caregivers, community members and nutrition/health workers in Sudan and South Sudan** | # Participants who attended awareness raising sessions/trainings on good nutrition, infant and young child feeding, and care practices |
| **1130** |  |
| **Increased and more equitable access to critical basic health and WASH services in communities targeted with nutrition programming (especially children under 5 and PLW/G) to reduce risk, and support successful treatment, of malnutrition in Sudan and South Sudan** | # Of patients provided with primary care consultations |
| # Of people who access safe drinking water with support from CARE and partners pursuant to relevant standards |
| # Of people reached through hygiene promotion sessions |

## **Key lines of inquiry**

1. The survey should provide qualitative and quantitative on how specific groups are affected differently by the crisis?
2. Are there other actors providing nutrition support, to what extend?
3. Are there voucher modalities in the targeted areas? and what modality preferred by the targeted communities?
4. Availability and level of access to safe drinking water? What are the available resources? And what is needed to improve access to save water?
5. What are the barriers around positive nutrition / hygiene practices, access to health services, and gender equality?
6. **Scope of work and:**

The baseline and SMART survey will take place in Kassala and Gedaref states covering 5 localities, two in Kassala (Wedelhelio and Aroma) and three localities in Gedaref state (Galabat Ash-Shargiah, Al Mafaza and Al Fashaga localités).

It is suggested that primary data should be collected through qualitative / quantitative / mixed methods and may use some of the following data collection tools and/or others suggested by the evaluator:

* HH survey
* Nutrition SMART survey
* FGDs?
* KII

The data should be triangulated using the different mention methods. HH survey to be conducted using structured questioner to collect the required quantitative data from individuals, FGDs and KII will be used for collecting qualitative through deep conservation with groups of people and actors in the communities and relevant institutions.

**Sampling strategy for HH survey:**

**Samples for baseline survey:** Random sampling will be used for collecting the baseline data targeting household leaders, the following Glenn.I., 2002 method: Sample size **(n) =** Total Population **(N) / (1+N\*r²) (**r is a margin of error (degree of accuracy). Using 5% as margin error and the total targeted people are about 140000, the sample size calculated as 400 individuals to be consulted using HH structured questioner

Sample size (n)=140000/(1+140000\*0.05²) = **400**

**SMART Survey:**

The survey will employ a cross sectional study design with two stage cluster sampling based on the SMART Methodology. The sampling frame will be drawn from the population of targeted localities in the two State.

Two stage sampling techniques will be used. In the first stage, clusters will be selected randomly and the sample size for the respective clusters will be allocated using Probability Proportion to Population Size (PPS). The Emergency Nutrition Assessment (ENA) for Standardized Monitoring of Relief and Transitions (SMART) will be used to determine the sample size for both anthropometric and retrospective mortality and cluster assignment in the study area using the appropriate prevalence of malnutrition in the five localities.

## **Second stage of sampling: selection of households and children.**

## **Selection of households**

Upon arrival at the selected villages, the survey team will meet the village chief/elder, introductions will be made, and the purpose of the survey and the survey sampling procedure explained. Segmentations will be made depending on the size of the village. The team will list all the households residing in the village with the help of the village chief or representative. After drawing up the list of the households and assigning each household a number, households will be selected using a Random Number Table for the simple random sampling method. The team will start with convenient randomly selected household.

## **Selection of children for SMART survey**

In every household visited the mother/caregiver will be interviewed. If there are children between 0 - 59 months old in the household, the child health and IYCF questions will be administered, along with the household questions. All eligible children aged between 6 - 59 months in each visited household will be included for the anthropometric questions.

The consultant must work with field team to distribute the samples to the different localities and villages according to population.

## **Reserve clusters:**

Five reserve clusters will be identified by the ENA software, and they will be used to replace the original clusters that will not reached due to inaccessibility and any other concern.

## **Training:**

The enumerators and other participants in data collection should be trained on using the tools for collecting the data. Training will be conducted for five days, including a field test, and training will cover survey objectives, basic malnutrition, concept of sampling and baseline and SMART survey methodology followed by anthropometric measurements, recognition of the signs and symptoms of malnutrition including nutritional bi-lateral oedema and how to fill the questionnaire and how to interview households.

A standardization test will be done during the fourth day of the training to verify anthropometric skills of enumerators and to detect differences among measurers. Ten children will be measured once by the survey supervisor and then each of the enumerators will be allowed to measure the children’s weight, height and MUAC twice with a time interval between individual measures.

The pilot survey will be conducted in an area which is not selected for the survey. Observations of errors in the performance of each team with regards to undertaking measurements and completing the questionnaires will be identified, discussed, and corrected with all team members by the team leader and the Survey consultant.

The consultant is free to recommend other appropriate methodologies that will be discussed with and approved by Care International, ensuring that there is good technical quality that is reliable and systematic in nature and can serve the intended purposes and support relevant analysis

The consultant will be required to review project documents and other secondary data sources; however, the major information sources will be direct field research and interviews with beneficiaries, key informants and partners including respective persons in the State Ministry of Health, targeted health facilities, related existing CBOs, State Water corporation and community leaders.

The data collection team should include both male and female members to avoid cultural barriers, moreover local languages speakers (if possible) should be considered among the team. When selecting the respondents/interviewees, accuracy in representation should be ensured in terms of women, men, youth, and adults, disabled and all others community’s sectors.

Documentation of all research activities, especially through photos e.g. photos of focus group discussions, interviews, team meetings, sites from the area etc. is required. This also includes the FGD and observation notes.

##

## **Data analysis**

**Interpreting the data**

The SMART survey is a cross-sectional study that generates descriptive data such as the prevalence of malnutrition by taking a ‘snapshot’ at one point in time for one location. The statistical tests determine if the difference in figures amongst variables is far enough apart to really be a ‘significant’ difference where one can see a trend developing. Simply, this significant difference should be shown throughout this report by the p-value, which if less than 0.05 means that there is a significant difference and 95% confidence intervals (CI) should be used to judge the statistical precision of point estimates, whereby the more precise the estimate, the tighter the CI. Where means are presented throughout the report, a SD will be presented which is the measure of spread around the mean.

**Classifying malnutrition**

**Weight-for-height**

Weight-for-height z-scores (WHZ) will be calculated to give the prevalence of acute malnutrition or wasting. Wasting can be assessed by comparing a child’s weight with the weight that would be expected from a healthy child of the same height and sex. For the purposes of this survey, the WHO Growth Standards, 2006 will be used as healthy comparison group to obtain z-scores.

A z-score will be used to measure how far the child deviates from the mean WHO standard for his age or height, and therefore a measure of how well he is growing compared to the ‘norm.’ As seen below wasting is defined as <-2 z-scores (global acute malnutrition), whereas severe wasting is defined as <-3 z-scores (severe acute malnutrition)

Table 1: Wasting as defined by WHO

|  |  |
| --- | --- |
| Global Acute Malnutrition (GAM) Moderate & severe wasting  | <-2 z-scores / <80% median weight-for-height (WFH) and/or oedema  |
| Severe Acute Malnutrition (SAM) Severe wasting | <-3 z-scores / <70% median weight-for-height (WFH) and/or oedema  |

**Mid-upper arm circumference (MUAC)**

The MUAC increases in size during the first six months of a child's life quite significantly, but relatively little between the ages of 1-5 years. At birth an infant's upper arm circumference is about 105 mm. By the age of one year, it will have grown on average to about 165 mm. Over the next four years until the child is five years old, the circumference only grows about 10 mm to 175 mm at the most. Any child aged between 1-5 years whose arm circumference is less than 125 mm may be acutely malnourished and less than 115 mm severely malnourished. MUAC is a simple and important tool as it is the best predictor of those cases most at risk of dying once the MUAC falls below 115 mm; however, it is not a sensitive early predictor of malnutrition.

**Height-for-age**

Height-for-age z-scores will be calculated to give the prevalence of chronic malnutrition or stunting. Stunting can be assessed by comparing a child’s height with the height of a healthy child of the same age. Stunting is an index of long-term nutritional deprivation where growth is being compromised to conserve nutrients and energy for the maintenance of the body. It is also necessary to know the exact age of the child to accurately determine stunting as seen in the Table below, stunting is defined as <-2 z-scores, whereas severe stunting is defined as <-3 z-scores.

 Table 2: Stunting as defined by WHO

|  |  |
| --- | --- |
| Global Chronic Malnutrition Global Stunting | <-2 z-scores / <90% median height-for-age (HFA)  |
| Severe Chronic Malnutrition Severe Stunting | <-3 z-scores / <80% median height-for-age (HFA)  |

**Weight-for-age**

Weight-for-age z-scores will be calculated to give the prevalence of under nutrition or underweight. Underweight will be assessed by comparing a child’s weight with the weight of a healthy child of the same age. It is also necessary to know the exact age of the child to accurately determine underweight. Underweight is defined as <-2 z-scores, whereas severe underweight is defined as <-3 z-scores.

Population cut-offs for malnutrition

The Table below defines the population cut-offs for determining the severity of the malnutrition when the prevalence of acute and chronic malnutrition is known. These levels are internationally agreed upon and provide an objective basis for developing responses to increased levels of acute and chronic malnutrition. To interpret proportions at a population level with meaning, absolute numbers are also necessary (i.e., 8% of a large population will be many more than 15% of a small population).

Table 3: WHO population cut-offs for chronic and acute malnutrition

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Index | Normal/Low | Poor/Medium | Serious/High | Critical/Very high |
| Global Underweight | <10% | 10-19.9% | 20-29.9% | >30% |
| Global Chronic Malnutrition | <20% | 20-29% | 30-39% | >40 |
| Global Acute Malnutrition | <5% | 5-9% | 10-14% | >15 |
| (GAM) Mean weight for height z-score  | >-0.40 | -0.40 to –0.69 | -0.70 to –0.99 | <-1.00 |

**Data Quality Issues**

The designed data collection techniques, Quality of data should not be compromised, and maximum care should be taken to avoid or at least minimize errors at all stages of the SMART Survey. Some techniques such as, but not limited to, the following will be applied:

* + Before data collection: Pilot testing the data, collection tool will be required in order to verify the reliability and validity of the tool. This includes for both face to face and remote approaches.
	+ During field data collection: For household surveys, data entry will be on the spot using an electronic questionnaire. Monitoring enumerators for accuracy in doing the interview and in capturing data will be necessary. Checking through all completed responses (on a daily basis) to ensure any mistakes or inconsistencies are corrected on time will add value to the quality of data.
	+ Data analysis: Perform iterative data analysis which involves continuously analyzing key variables as part of data quality checks using various methods such as: frequencies or cross-tabulations or any forms of regressions

## **Products/Deliverables**

There will be key deliverables of this process:

* + An inception report clearly outlining the approach, indicators, methodology and tools.
	+ Finalize survey tools and inclusive and gender sensitive sampling design.
	+ Enumerator training, tool, pre- testing, and data collection.
	+ A comprehensive and well-organized final Baseline and SMART Survey report in electronic version word and PDF based in the template structure in annex below. (Not more than 40 pages)
	+ Supporting files, original and cleaned datasets, statistical output files, photos, etc.
	+ Fact sheet or abstract and power point presentations to be used for dissemination of results to stakeholders
1. **Accountability and Responsibilities:**
	1. **Consultant’s Roles and Responsibilities:**
		* Establish working contacts with all stakeholders in Kassala and Gedaref States – Sudan.
		* Review of the relevant project documents.
		* Prepare and submit the baseline and SMART survey inception report including methodology, work plan schedules and budget (the budget covers all the survey expenses such as fees, transportation, accommodation, communication, etc.) break down of the budget is required.
* Identify the appropriate sample size to achieve the survey objective.
* Design tools/questionnaire and methodology for data collection of both qualitative and quantitative data and share them with Care International for their review and approval.
* Recruit, train and supervise enumerators.
* Carry out data collection (primary data and review of secondary data)
* Analyze and synthesize data; and prepare report
* Submit data analysis and draft report to Care International Sudan for review and feedback
* Incorporate, compile, and submit final report
	1. **Care International’s Roles and Responsibilities:**
		+ Review and approve the study tools and methodologies.
		+ Brief the stakeholders about the purpose of the Baseline and SMART survey.
		+ Provide all the necessary support to the consultant.
		+ Contact with State HAC & security to get the permission.
		+ Assist in organizing all meetings.
		+ Prepare and effect payment for the consultant upon completion of the assignments and acceptance of the final baseline.
		+ Ensure accuracy of representation in the research team and in the interviewees.
		+ Provide consultant with all supported documents

**Expected Deliverables**

The consultant is required to deliver the following:

* + - Draft and final Inception report including the operational methodology and detailed work plan (indicating all the stages of the study process, timelines and team/individuals involved with their CVs) and data gathering instruments (survey questionnaires, etc.) attached to the report.
		- Draft and final baseline and SMART reports with clear findings
		- Systematic baseline database produced and delivered with the final report along with recommendation of targets for performance evaluation.

# **Reporting format**

CARE International in Sudan will discuss with the successful consultant (s), the content and length of the final report. However, below is a suggested outline for the report.

* 1. Cover page (1 page)
	2. Table of Contents (1 page)
	3. Acknowledgements (1 page)
	4. Glossary (1 page)
	5. Introduction (1 page)
	6. Description of Project (1 - 2pages)
	7. Executive summary (3 Pages)
	8. Baseline and SMART Survey introduction/Background/relevant context information (max 4 pages)
	9. Methodology (max 3 pages)
	10. Findings (max 15 pages)
	11. Lessons learnt from the Survey process (max 1/2 pages)
	12. Conclusion and recommendations (max 4 pages)
	13. Summary table of indicator Survey results.
	14. Appendices (to include copies of all tools, list of enumerators, survey timeline including all KII and FGD participants and discussion transcripts (as many pages as necessary- please reference the annexes in the report, but include them in a zip file as separate document

# **Consultant profile**

* Relevant academic qualification in social sciences or another related field.
* The consultant should preferably be a holder of a post graduate degree in public health, Nutrition, or related discipline, or have assistant holder of a post graduate degree in public health, Nutrition.
* Demonstrated experience and skills in facilitating and conducting baseline surveys
* Qualified and experienced consultant with Health and Nutrition background in surveys and assessments using SMART methodology.
* Demonstrated experience of having lead SMART or similar survey in Sub-Saharan Africa
* Proven team leading and managerial experience
* Knowledge of working with conflict-affected populations
* The consultant must have a strong background in statistics and data analysis. Must know SPSS, STATA, EPI info and ENA for SMART and all relevant computer applications in general.
* Excellent reporting and presentation skills.
* Excellent knowledge of and experience with humanitarian guidelines and principles.
* Willingness to travel extensively and work under pressure & meeting deadlines
* Ability to work in a multicultural and inter-sectoral environment.
* Ability to work collaboratively as a team with the other staff members.
* Ability to coordinate, direct and supervise others to achieve a common goal.
* Ability to live and work in an isolated area in conditions of limited comfort

# **Evaluation and Award of Consultancy**

CARE Sudan will evaluate the proposals and award the assignment based on technical and financial criteria. CARE reserves the right to accept or reject any proposal received without giving reasons and is not bound to accept the lowest, the highest or any bidder. Only the successful applicant will be contacted.

The evaluation criteria associated with this TOR is split between technical and financial as follows:

1. 70 % -Technical
2. 30 % -Financial

**Technical Evaluation Criteria**

|  |  |
| --- | --- |
| **Technical Criteria** | **Description**  |
| General understanding of the TOR. | Does the proposal demonstrate a clear understanding of the TOR? Does the consultant made effort to interpret the objectives? |
| Methodology | To what extent is the methodology clear and detailed? Is the sampling method and sample size computation scientifically acceptable? Are all the relevant methods of data collection included in the proposal?  |
| Team composition | Does the consultant (or proposed team) have the necessary competencies and experiences as described in the TOR to undertake this study?  |
| Experience | Experience of conducting baseline and evaluation surveys in Sudan, preferably within proposed geographical area has competitive advantage. Experience with similar assignments with INGOs/ other organization |
| Workplan | Is an action plan part of the proposal? Is it reasonable or realistic? Does it meet the expected deadlines? Is it flexible to accommodate any changes without compromising the deadline and quality of products |
| Budget | To what extent is the presented budget reasonable. Is the budget clearly aligned with the planned amount?  |

**Payment Terms and Conditions**

Payment will be affected as follows; First installment (30%) of the total cost on submission and acceptance of inception report. Final payment (70%) upon completion and approval of the final report. Additional information on payment terms and conditions will be included in the contract.

# **Budget**

**Cost of the survey*:*** should be summarised as follows with a detailed breakdown attached:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Details** | **Unit** |  **Rate (US$)** | **# of Units (Quantity)** | **Cost (US$)** |
| 1 | Consultant’s fees (excluding data enumerators’ costs)  |  |  |  |  |
| 2 | Transport cost  |  |  |  |  |
| 3 | Subsistence costs (e.g. accommodation, communication, meals, etc)  |  |  |  |  |
| 4 | Enumerator cost  |  |  |  |  |
| 5 | Veihcle rent for data collection in the feild |  |  |  |  |
| 6 | Any other costs that are critical, but not provided for by CARE |  |  |  |  |

**Proposed work plan**

**Activity Timeframe**

|  |  |
| --- | --- |
| **Activity** |  **No. of days** |
| Development of inception report including methodology and tools | 5 days |
| Review of secondary information + finalization of tools by the consultant team | 5days |
| Training of enumerators and field testing | 5 days |
| Conduct primary data collections  | 15 days |
| Data entering cleaning and analyses  | 5 days |
| Draft and submit baseline survey report  | 8 days |
| Finalization and submission of the final report | 2 days |
| Total  | 45 days |

# **Intended Users of the Baseline Study Report**

Along with the project team, other staffs of Care International Sudan, Government related partners, community members, local NGOs and other stakeholders will be benefiting from this survey report

**Proposal Content:**

Those interested in the consultancy must include in their application a detailed technical and financial proposal with the following components:

**Technical**

* + - Technical proposal for conducting the baseline survey based on the given information and including methodology and work plan schedules

**Financial**

* + - Budget, covering all the survey expenses such as consultancy fees, transportation, accommodation, communication, support staff, printing etc.).

For those who interested in this consultancy work, please send your proposals and the other required documents to the following emails:

Hanadi Awad Osman : Hanadi.Algaali@care.org

Badreldin Hamid: Badreldin.Hamid@care.org

Nasreldin Saeed: Nasreldin.Saeed@care.org