

TERMS OF REFERENCE (TOR)

GENERAL INFORMATION

Services/Work Description: STUDY ON SUSTAINABLE ENERGY ACCESS OPTIONS IN GAMBELLA REFUGEE CAMPS AND AREAS HOSTING REFUGEES

Project/Program Title: Enhancing Livelihood Restoration and Resilience of Refugee Hosting Communities and Internally Displaced Peoples in Gambella Regional State

Duty Station: Addis Ababa and Gambela

Type of Contract: **International or National Consultancy Firm**

Contractor: Consulting firm engaged in renewable energy development and well experienced in humanitarian including refugee and host community

Duration: 30 working days

Expected Start Date: Immediately after concluding the contract agreement

I. BACKGROUND / Project Description

Gambella region is one of the least developed remote states in Ethiopia, with very limited public facilities and infrastructure. The situation is further aggravated by the presence of large refugee population. As of 31 September 2018, the Gambella region hosts vast majority of South Sudanese refugees -over 400,000. The protracted nature of South Sudanese refugee situations in Gambella region increases pressure on natural resources, and causes social tensions and competition between communities, which in turn may increase incidents of conflict, protection and security risks.

As in most rural areas of the country, less than 20% of the population have access to the national grid i.e. more than 80% of the population in the region has no access to clean and affordable energy in the region. Since the refugee community reside in the off-grid areas of the region, they have no access to clean and affordable energy. As a result, the refugee and the host community depend on biomass sources i.e. they use fuelwood, for cooking, heating and lighting in some cases and these contribute for more than 50% deforestation. Though, there are few initiatives supported by government, NGOs and development partners to introduce solar lantern and small scale solar home system Lighting and low power energy consumptions such as mobile charging in the off-grid community, the refugee and host community still reside in the dark which potentially led to several socioeconomic issues including health, gender based violence and less productive hours.

The pressure on the environment due to the refugees' dependency on wood for energy and shelter construction, as well as clearing of land for habitation purposes are critical problems in most of the camps. Fuelwood gathering trips become longer and more arduous as the camps become more

protracted, which increases the range and scale of risk even further. The three-stone traditional stove using firewood are the most commonly used cooking method and result in the loss of significant amounts of energy., reaches about 95%. At the same time, a combination of poorly designed and energy inefficient stoves, often combined with low quality and smoky biomass fires are key contributors to respiratory disease. Women, who are generally responsible for household cooking and young children who spent most of their time with their mother in the kitchen, are the primary victims.

Given the specific nature of the camps and the large number of refugees, access to sustainable energy challenge is intensifying as competition escalates between refugees and residents over scarce natural resources, increasing pressures on the environment. Despite the complexities associated with existing refugee situations, it is commonly accepted that the quality of life of both refugees and local communities, as well as their basic safety, could be dramatically improved by increasing the availability of sustainable energy access options. Sustainable and consistent intervention to improve the issue of domestic energy is essential to reduce protection risks related to fuelwood collection and conflict with host communities while ensuring cooking fuel is vital to improve the nutritional status of children.

Due to environmental degradation and a number of other factors, including the negative impacts fuelwood collection has had on those competing for scarce resources, it is a priority to replace fuelwood as the main domestic energy source for refugee in Gambella, and to form a robust, and appropriate domestic energy supply strategy for cooking lighting and heating. Such strategy should form part of a holistic sustainable energy access strategy that would also include energy communal lighting as well as for pumping of water for irrigation and drinking. The potential to use renewable energy market as alternative livelihood for unemployed youths also another area to be considered.

In view of these understanding, UNDP Ethiopia CO is seeking to commission an in-depth assessment of the access to sustainable energy options in Gambella refugee camps and areas hosting refugees, to document the situation and formulate an evidence-based strategy as well as use for future design programmes. This also includes potential alternative, innovative and sustainable renewable energy sources and technologies as well as market-based mechanism through participating the refuge and host youth Therefore, UNDP envisages contracting a duly experienced and high caliber individual that can provide qualified and timely technical support and guidance on this subject.

II Objectives

The study aims to contribute to the formulation of a comprehensive and realistic options to ensure access to sustainable energy for cooking, heating, lighting as well as water pumping, and will thus provide UNDP and key stakeholders with an adequate understanding of both the current baseline situation and a road map for the solution to this challenging issue. The findings of the study help stakeholders in analyzing available lighting and cooking technologies and fuel options to develop a portfolio of sustainable and evidence-based strategies and future interventions. organic compost users; could be for urban greening or for crop and vegetable production.

III SCOPE OF THE SERVICE / WORK

The prospective consultant will undertake the following tasks in collaboration with UNDP and UNHCR team, specifically team based in Gambella

1. Desk review of previous and existing alternative energy access initiative assessments and projects in Gambella refugee operations and in similar refugee camp settings including

UNHCR recent study and findings, in order to compile lessons learned and key recommendations for considerations;

2. Energy demand assessment to establish
 - i. Basic energy use profile in the camps and adjacent communities hosting refugee (including the proportion of energy used for cooking, lighting, appliances, ventilation, water pumping and cooling if applicable);
 - ii. Establishment of baseline energy demand for cooking, domestic lighting, communal lighting, water pumping for irrigation and water Pumping for drinking in KWH per person and per household;
3. Provide a comprehensive assessment of the domestic energy situation in selected four refugee-hosting areas. This will include cooking fuels in use, estimated quantities being consumed, sources being exploited and any social, economic, cultural or environmental factors relevant to prevailing energy access arrangements;
4. On the basis of the above assessment, and in consultation with relevant stakeholders including Governments, UN agencies and NGOs, refugees, and host communities, suggest interventions to improve the supply/demand situation;
5. Develop a portfolio of clean cookstove and alternative fuel technologies and best practices, based on the outcome of the assessment;
6. Develop a market-based mechanism including job creation and link with alternative financing instruments such as micro financing scheme
7. Provide relevant initiatives that can be linked/ taped in to enhance access to sustainable energy through market-based mechanism
8. Identify energy access programmes that may have the potential for carbon financing.
9. Identify fuel-efficient stove/fuels including alternative sustainable energy sources that could be stockpiled for emergency response;
10. Provide analysis of capacity development needs with regard to awareness raising and the sustainable management of energy sources, identifying capacity gaps to be addressed and how these might be filled;
11. Produce a final technical report summarizing recommendations and interventions that can underpin informed decision-making processes.

KEY GUIDING QUESTIONS THE STUDY NEEDS TO ANSWER

1. What types of energy are used, for what purpose
 - a) Camp operations;
 - b) Refugee households; and
 - c) Surrounding Communities
2. Do refugees have access to electricity? to lean energy (in what form? Who has access? What uses?)
3. The plan for national grid expansion is there a long or short-term plan to cover that area through grid?
4. Are there any clean energy interventions? Are any renewable energy applications planned? If so, when and by whom? And how will they be paid for?
5. What are the potentials for market-based mechanism

6. is there any financing mechanism such as credit facility for local energy enterprise for consumer lending activities?
7. do the refugee and host community have awareness related to sustainable energy use and opportunities as livelihood/ alternative income generation
8. what are the potentials renewable energy source in the region particularly in the refugee areas.
9. Are there appropriate (affordable) technologies that can tap in the available energy sources
10. what are the skill level of the host and refugee youths to take part of the market-based mechanisms?
11. What are the main technologies/equipment for using energy in
 - a) camp operations
 - b) households (e.g. main type of cooking equipment, type of generators, water pumping, water heating, milling, lighting, mobile phone charging, refrigeration)
12. Where does cooking take place? If inside, is there a chimney?
13. Energy provision and trade how much is provided e.g. by UNHCR or another agency
14. How much is bought by refugees themselves/collected? Which family members tend to engage in this activity most?
15. How much do households use of each type of energy; and how much do they pay for it? e.g. per week or month (e.g. incl. size of LPG canisters, liters of kerosene, weight of wood/ biomass, charcoal)
16. How much does the UNHCR (or other organization/host government) pay for fuels and electricity? E.g. per camp per year. Does UNHCR hold this data?
17. Do refugees sell firewood)? To what extent?
18. Do refugees sell energy using equipment? To what extent?
19. Any findings from studies on health impacts of energy related conditions (cooking/temperature/lighting)? Any collection of data on premature deaths from lung, respiratory and related diseases?
20. How frequent are case of burns/hospitalization/house fires caused by energy use (e.g. stoves, candles, bad electrical connections)?

IV. EXPECTED OUTPUTS AND DELIVERABLES

| Expected Outputs: | Required Completion Date: |
|---|--|
| - Facilitation of inception workshop with relevant stakeholders | 5 working days after signing of the contract |
| - Inception report | 5 working days after signing of the contract |
| <i>First instalment payment to consulting Firm</i> | <i>20% of total payment</i> |
| - First draft report | 7 working days after signing of the contract |
| - Facilitation of validation workshop | 3 working days after signing of the contract |
| <i>Second instalment payment to consulting Firm</i> | <i>30 % of total payment</i> |
| - Final report | 7 working days after signing of the contract |
| - Facilitation of launching workshop | 3 working days after signing of the contract |
| <i>Fifth instalment payment to consulting Firm</i> | <i>50% of total payment</i> |

V. METHODOLOGY / APPROACH OF THE SERVICE (WORK):

A combination of quantitative and qualitative methods will be used to review the energy economy in the four refugee camps in Gambella region and the neighboring host community settlements. The quantitative methods will employ surveying household energy use and measuring the energy consumption of administrative operations. The qualitative methods will include key informant interviews, focus group discussions and desk research. To understand the current energy and environmental situation in and around settlements, literature and desktop reviews will be undertaken and first-hand data will be collected from different sources.

VI. INSTITUTIONAL ARRANGEMENT / REPORTING RELATIONSHIPS:

The consulting Firm shall submit all deliverables for comments to Gambella Region Disaster Prevention and Food Security Agency, Administration for Refugee and Returnee Agency (ARRA) and, UNHCR UNDP and it shall work under the direct supervision of UNDP's Programme Analyst. The required logistical arrangements (such as workshop venues, workshop invitations and bilateral stakeholder meetings) shall be made by UNDP, which will also cover workshop/meeting costs. Costs related to international as well as local travel shall be fully covered by the consulting Firm. Additional expenditures to be incurred by the consulting firm must be discussed and documented with UNDP in advance.

VII. PAYMENT MILESTONES AND AUTHORITY:

| Instalment of Payment/ Period | Deliverables or Documents to be Delivered | Approval should be obtained from: | Percentage of Payment |
|--------------------------------------|---|---|------------------------------|
| 1 st Installment | Upon submission of inception report and facilitation of inception workshop | Gambella Region Disaster Prevention and Food Security Agency and UNDP | 20% |
| 2 nd Installment | Upon submission of first draft report and facilitation of validation workshop | Gambella Region Disaster Prevention and Food Security Agency and UNDP | 30% |
| 3 rd Installment | Upon submission of final report and facilitation of launching workshop | Gambella Region Disaster Prevention and Food Security Agency and UNDP | 50% |

VIII. MINIMUM ORGANIZATION AND CONSULTANCY TASK FORCE REQUIREMENTS

Minimum Organization Requirements

The consulting Firm should have:

- Appropriate technical expertise in renewable energy development specifically domestic energy issues, market mechanism and humanitarian issues
- Practical experience in
- Experience in developing conducting feasibility assessment and developing market-based development interventions
- A strong understanding on national and international renewable energy issues and technologies
- Demonstrated ability to analyze potential job creation opportunities and promote long and term interventions through market-based interventions.

| No | Title | Qualification and experience |
|----|---------------------------------------|--|
| 1. | Team Leader / renewable energy expert | <p>Advanced university degree in energy/renewable energy, natural resource management, environmental sciences, development, engineering, or related fields; The consulting team should include a team leader with a proven track-record working in conducting sustainable energy access situations ideally in the humanitarian settings. The team leader is expert is responsible for conducting the energy demand and supply situation analyses, recommend for practical solutions including market-based mechanisms. He/she must have the following experience:</p> <ul style="list-style-type: none"> ▪ At least 15 years relevant work experience, of which 5 years in international context, particularly in East Africa; ▪ Hands-on experience in design, monitoring and evaluation of development projects, experience with undertaking assessments, and strategic planning; ▪ Strong interest and exposure to development and humanitarian issues, especially in the area of energy access; ▪ Ability to think creatively, and to explore, harness and translate innovative concepts into practice. ▪ Able to work independently and deliver quality reports on time. ▪ Proven experience in design, installation, operation and maintenance of domestic energy technologies including cooking and solar PV systems. ▪ Good understanding of using basic testing and monitoring equipment on pre-installation and project monitoring and evaluation. ▪ Experience in the planning, design, budgeting and management of energy projects <p>Language and other skills:</p> <ul style="list-style-type: none"> ▪ Good communication skills in written and spoken English. Knowledge of Amharic/local is an advantage ▪ Capacity to communicate fluently with different stakeholders (civil society, government authorities, local communities, project staff). ▪ Computer skills: full command of Microsoft applications (Word, Excel, PowerPoint) and common internet applications. |
| 2. | Marketing Expert | <p>Master's degree or above marketing, business administration, economics or a similar discipline. At least 10 years' experience in relevant tasks. The consulting team should include an expert with a proven track-record working in marketing products mainly renewable market analysis. The marketing expert is responsible for assessing market opportunities and ensuring sustainable market is created for the MSEs engaged in renewable energy He/she must have the following experience:</p> <ul style="list-style-type: none"> ▪ Strong knowledge of marketing. The marketing expert should have at least 10 years of experience in market analysis, marketing research and promotion; ▪ Strong understanding the local market for renewable both on the demand and supply side; ▪ Demonstrable direct experience with marketing products mainly appropriate rural technologies; ▪ Experience in data gathering and research, especially in the context of marketing; ▪ Adequate knowledge of the developing country national context, preferably sub-Saharan Africa and ideally Ethiopia; ▪ Good communication skills in written and spoken English. Knowledge of Amharic/local is an advantage; ▪ Proven experience working with national and international development organizations such as UNDP, private organizations, MSEs and government. |
| 3. | Socio – economic | BSC degree or above in sociology, economics, or a similar discipline. At least 10 years' experience in relevant tasks. |

| | | |
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| | expert | <p>The consulting team should include a socio-economic expert with a proven track-record of working on analyzing socio- economic context of refugee and host community. The expert must have the following experience:</p> <ul style="list-style-type: none"> ▪ Strong interest and exposure to development and humanitarian issues, especially in the area of energy and innovation; ▪ Strong knowledge of conducting analysis on refuge and host community station; ▪ Demonstrable experience with practical field work methodologies; ▪ Demonstrable direct experience on hands on community interventions ideally alternative livelihood related to low rural technologies; ▪ Adequate knowledge of the developing country national context, preferably sub-Saharan Africa and ideally Ethiopia; ▪ Good communication skills in written and spoken English as well as Amharic. Knowledge of one of the region languages is an advantage; <p>Proven experience working with international development organizations such as UNDP and UNHCR.</p> |
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IX. CRITERIA FOR SELECTING THE BEST OFFER

Upon the advertisement of the Procurement Notice, qualified consultancy Firm is expected to submit both the Technical and Financial Proposals. Accordingly, the firm will be evaluated based on Cumulative Analysis as per the following conditions:

- Responsive/compliant/acceptable as per the Instruction to Bidders (ITB) of the Standard Bid Document (SBD), and
- Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation. In this regard, the respective weights of the proposals are:
 - Technical Criteria weight is 70%
 - Financial Criteria weight is 30%

X. LOGISTICAL SUPPORT

Access to the key stakeholders and arrangement of relevant meetings and workshops and associated costs will be facilitated and managed by UNDP and Gambella Region Disaster Prevention and Food Security Agency.

XI. RECOMMENDED PRESENTATION OF TECHNICAL PROPOSAL

For purposes of generating proposals whose contents are uniformly presented and to facilitate their comparative review, a Service Provider here below is given a proposed Table of Contents. Accordingly, your Technical Proposal document must have at least the preferred content as outlined in the RFP Standard Bid Document (SBD).

XII. CONFIDENTIALITY AND PROPRIETARY INTERESTS

The consulting Firms shall not either, during the term or after termination of the assignment, disclose any proprietary or confidential information related to the consultancy or the Government without prior written consent. Proprietary interests on all materials and documents prepared by the Consulting Firms under the assignment shall become and remain properties of UNDP. This assignment will be administrated by the United Nations Development Programme (UNDP), and all relevant UNDP rules, policies and procedures will apply.

XII. ANNEXES TO THE TOR

Existing literature or documents that will help Offerors gain a better understanding of the project situation and the work required should be provided as annex/es to the TOR, especially if such literature or documents are not confidential.

PROPOSED STANDARD TECHNICAL PROPOSAL EVALUATION CRITERIA

Herewith please find the **Standard Technical Proposal Evaluation Criteria** along with respective allocated weight template for Requester's subsequent review. As per the relevance of the proposed criteria it can either:

- Redistribute the allocated weight;
- Delete specific criteria if you find it irrelevant or less relevant; or
- Replace with new criteria along with corresponding allocated weight

| Summary of Technical Proposal Evaluation Forms | | Score Weight | Points Obtainable |
|--|--|--------------|-------------------|
| 1 | Expertise of Firm / Organization | 30% | 300 |
| 2 | Proposed Methodology, Approach and Implementation Plan | 40% | 400 |
| 3 | Management Structure and Key Personnel | 30% | 300 |
| TOTAL | | 100% | 1000 |

| Technical Proposal Evaluation (FORM I) | | |
|--|--|-------------------|
| Expertise of the Firm / Organization | | Points Obtainable |
| 1.1 | Reputation of Organization and Staff / Credibility / Reliability / Industry Standing | 50 |
| 1.2 | General Organizational Capability which is likely to affect implementation - Financial Stability - Loose consortium, Holding company or One firm - Age/size of the firm - Strength of the Project Management Support - Project Financing Capacity - Project Management Control | 90 |
| 1.3 | Extent to which any work would be sub-contracted (sub-contracting carries additional risks which may affect project implementation, but properly done it offers a chance to access specialized skills.) | 15 |
| 1.4 | Quality assurance procedure, warranty | 25 |
| 1.5 | Relevance of: - Specialized Knowledge - Experience on Similar Programmes / Projects - Experience on Projects in Ethiopia and the Region - Work for UNDP/ major multilateral/ or bilateral programmes | 120 |
| SUB TOTAL | | 300 |

| Technical Proposal Evaluation (FORM II) | | |
|--|--|----|
| Proposed Methodology, Approach and Implementation Plan | | |
| 2.1 | To what degree does the Proposer understand the task? | 30 |
| 2.2 | Have the important aspects of the task been addressed in sufficient detail? | 25 |
| 2.3 | Are the different components of the project adequately weighted relative to one another? | 20 |

| | | |
|---|--|-------------|
| 2.4 | Is the proposal based on a survey of the project environment and was this data input properly used in the preparation of the proposal? | 55 |
| 2.5 | Is the conceptual framework adopted appropriate for the task? | 65 |
| 2.6 | Is the scope of task well defined and does it correspond to the TOR? | 120 |
| 2.7 | Is the presentation clear and is the sequence of activities and the planning logical, realistic and promise efficient implementation to the project? | 85 |
| SUB TOTAL | | 400 |
| Technical Proposal Evaluation (FORM III) | | |
| Management Structure and Key Personnel | | |
| 3.1 | Team Leader/ Compost training organizer General Qualifications Suitability for the Project | |
| | - Compost production experience | 50 |
| | - Regional/national experience | 20 |
| | - Experience managing similar projects | 10 |
| | - Experience working with international development organizations | 10 |
| | - Language qualification | 10 |
| SUB TOTAL | | 100 |
| 3.2 | Marketing expert General Qualifications Suitability for the project | |
| | - Market analysis and sales experience | 50 |
| | - Regional/national experience | 15 |
| | - Experience working on similar projects | 10 |
| | - Experience working with international development organizations | 10 |
| | - Language qualification | 15 |
| SUB TOTAL | | 100 |
| 3.3 | Trainers (2) General Qualifications Suitability for the project | |
| | - Compost production experience | 50 |
| | - Carbon/climate finance experience | 20 |
| | - Regional/national experience | 10 |
| | - Experience working with international development organizations | 10 |
| | - Language qualification | 10 |
| SUB TOTAL | | 100 |
| | Aggregate | 1000 |