Terms of Reference

"Regional Pilot Project on Circular Economy. Transition to a clean energy circular economy through the optimization of energy-intensive value-chains in the high-impact sectors"

Consultancy Services for Baseline Studies and Selection of Value Chains

International Consultancy Firm

Submission deadline:

Deadline Extended: 10 November 2023, 23h59 Cabo Verde local time

Disclaimer: In the event of any discrepancies or misunderstandings arising from translations or interpretations of this procurement document, the English version shall take precedence and serve as the authoritative reference. All parties involved are encouraged to seek clarification or verification in case of uncertainty regarding the content.

Contents

1. INTRODUCTION

The ECOWAS region continues to face interrelated challenges of energy access, energy security and climate change mitigation and adaptation, which are intertwined with the region's economic development. Rural electrification rates in many countries in the region are below 10%, and overall electrification rates are well below 50%. These energy challenges are impacting negatively on the implementation of regional programmes and strategies aimed at fostering socio-economic development, attracting foreign investment, providing basic social services, and achieving the Sustainable Development Goals (SDG7) goals.

In ECOWAS region, most of the countries' economies are predominantly dependent on the agricultural and livestock sector, which contributes considerably towards their GDPs and employ at 70% of the total population, while over 80% of the rural population depend mainly on small-scale subsistence farming as their main source for sustenance and revenues. The agricultural sector is however, characterized by low productivity owing to the fact it is mostly rain-fed, thus highly subject to adverse impacts of climate change such as erratic rainy seasons, variable rainfalls, floods, droughts, bush fires and other extreme events. This affects not only to food security, but hinders socio economic development in the region.

2. PROJECT BACKGROUND

The project "Regional Pilot Project on Circular Economy. Transition to a clean energy circular economy through the optimization of energy-intensive value-chains in the high-impact sectors" is a 26 month project that will be executed in 4 different countries of ECOWAS region, being them**, Benin, Niger, Nigeria and Senegal**. Through this project, ECREEE and AECID intend to enhance livelihood in targeted rural communities and improve the source of economy by improving energy efficiency in energy-intensive agribusiness sectors, creating employment and through the adoption of technological innovations in circular economy in value-chains where women and young are well-represented.

The interventions will also spur the adoption of low-carbon technologies in the communities, they will contribute to building resilience and mitigating the negative effects of climate change in the region.

2.1   General Objective of the Project

The general objective of the project is to *"Enhance livelihood in targeted communities and improve the source of economy in rural communities"*.

In order to attain this objective, we have set a holistic approach where we would act on the following main and crosscutting axis:

- **Economic:** improve the energy efficiency in selected value chains to avoid losses and optimize the performance and revenues.
- **Social:** strengthen the capacities of stakeholders and create employment.
- **Environmental:** move towards clean energy and reuse waste to reduce greenhouse gas emissions.
- **Community Development:** improve the livelihood of people by providing access for productive purposes.
- **Gender and Youth:** women and young people must be well represented in the selected value chains.

2.2   Specific Objectives of the Project

The outcomes of the project will be the following:

- Outcome 1: Energy efficiency improved in 4 energy-intensive agribusiness / livestock / fishery sectors.
- Outcome 2: Employment created in energy intensive agribusiness sectors in targeted communities.
- Outcome 3: Technological innovations in circular economy adopted in the promoted value-chains where women are well-represented.

These outcomes will be linked to the outputs of the activities planned for the project, described in the following section.

2.3 Planned Activities of the Project

A summary of the main activities that are planned for the project is:

1. Regional Virtual Workshop with the National Focal Institutions to launch the project.

2. *Baselinestudies and selection of value chains:* Desk research, will be conducted leading to the selection of value chains. Further information of this activity, can be found in Section *3-"Description of the assignment."*

3. Stake holder's Engagement: National meetings will be organized engaging all relevant stakeholders of the sector in order to provide input into the baseline study and relevant information for the design of the site interventions and site selection.

4. Site interventions:

   - Provision of clean energy solutions, i. e. institutional stoves for smoking fish, processing and storing units of milk; conservation/processing unit for horticulture/agriculture products (tomato, onion, potato, mango, cashew, sesame, banana, yam, rice, sorghum, etc.).
   - Provision of clean energy technology production units from waste such as briquettes and biogas i.e. 1 briquette manufacturing factory, biogas units.
   - Capacity building and training for the use of the technologies and fuels adopted.
   - Awareness-raising on alternative energy, energy efficiency.

5. Production of communication materials for scale-up and replication. On going projects under the Water, Energy and Food Programme intend to become flagship initiatives and therefore, that its activities can be expanded and replicated.
6. External Evaluation. External final evaluation of the project to determine the extent of technologies adoption, and its impact on users.

3. DESCRIPTION OF THE ASSIGNMENT

3.1 General Description

The selected company must conduct a thorough study of value chains in agriculture, fishery and livestock on each of the countries where the intervention will take place, that is, Benin, Niger, Nigeria and Senegal. For that purpose, desk research will be required, as well as consultations with national and regional stakeholders that can contribute to the results of the initial study by providing guidance, research materials, existing studies, policies, related projects developed in the regions, barriers found, possible risks and lessons learnt.

This initial study will serve as basis for the selection of the value chains that will be improved. After selection, data collection will be required in order to further assess the needs and better design the strategy of the site interventions.

A final report with recommendations of how to improve the value chains must be produced and will serve as basis for the elaboration of the ToRs for the different site interventions.

3.2   Activities of the Assignment

1) KICK-OFF MEETING – revise and confirm the expectations from the mission and approve calendar and initial template for the CAM Matrix.

2) DESK WORK –with consultations with key actors, including the National Focal Institutions (NFIs) of the 4 Member States and relevant stakeholders in the sector, as necessary.

The following steps will be performed:

- Sector / VC identification and Grouping. The first step of the project's value chain assessment process will be to identify the sectors and value chains that are most important to the selected countries and/or that could have market potential based on current trends. The assessment will then develop broad sector categories under which specific value chains will be grouped.

  For each of the value chains identified, desk research will be conducted to gather all relevant data. The team will also conduct a stakeholder mapping exercise as part of the data collection process to determine the major players including government, development partners, national and international organisations in each sector and value chain under consideration.

The sector categories might not align with those classified by the countries' stakeholders. With this in mind, the identification and groupings will be done in consultation with stakeholders.

During this stage, the countries' representatives may provide with national studies and any more recent documents to be taken into consideration.

- Trend Analysis and Scoring: Analysis of sector/VC trends and scoring based on data collected (including entry points for clean energy technologies)

In determining which sectors and value chains have the most potential in terms of investment, high(er)-value job creation, energy savings and energy efficiency, and revenue enhancement, the team will undertake a trend analysis of the demand side of each value chains identified in step one. This step will focus on market analysis, whereby the assessment will determine the market potential of sectors, value chains, and business activities.

The consultant will conduct a private sector mapping exercise for each sector and value chain that include potential investors, partners, government entities and potential Public-Private-Partnerships (PPP) and development partners. In addition, cross-value chain mapping of industry leaders and private sector investment funds will be conducted in order to identify those individuals and companies that can address investment, job creation, and revenue growth needs in each value chain. Once the assessment results are summarised, the key findings for each evaluation sub-criteria agreed under competitiveness potential, systemic impact and feasibility be presented in a brief narrative form.

The value chains will then be scored according to the selection criteria and sub-criteria and ranked accordingly using the Competitiveness Appraisal Matrix tool in Annex 1. An illustrative selection element is presented in table 1 below. The weights allocation and key analytical questions will be discussed and agreed with the NFIs before implementation.

Initial report will be produced to support the CAM Matrix. This will provide a comprehensive understanding of the circular economy, agriculture, fishery and livestock sector landscape, including:
- emerging trends, and challenges.
- sub-sectors usage of energy and potential for energy savings and efficiency.

- analysis of policy and regulatory and financing framework of the agriculture value chain in the countries
- Insights of projects and technologies along the selected value chains in the beneficiary countries and other countries, maturity of the technologies, lessons learnt and impacts of similar interventions.

Table 1: Sample Competitiveness Appraisal Matrix

Key Value Chains	Competitiveness Potential	Market demand	Competitive advantage	Upgrading potential	Strength of investor interest	Systemic impact	Number of MSMEs	Job creation potential	Opportunities for women, men and youth	Local supply chain linkages	Impact outside of selected towns	Feasibility	Private sector dynamism	Potential for PPPs	Alignment with Governments priorities	Total score (out of 100)	Rank
Weights/Score (1-7)	45%	10%	15%	10%	10%	40%	10%	15%	5%	5%	5%	15%	5%	5%	5%		
Rice																	
Millet																	
Sorghum																	
Cassava																	
Cashew																	
Shea-butter																	
Tomato																	
Onion																	
Potato																	
Mango																	
Milk																	
Fish																	
Etc.																	
Etc.																	

3) STAKEHOLDER'S CONSULTATION (In parallel with DESK WORK)

National meetings with the main stakeholders of the 4 countries in order to:
- Discuss the result of the Trends Analysis and scoring and select the value chains (4 per country).
- Agree on the information that will be collected for the design of the strategy (data collection questionnaire).
- Agree on the site selection.

An indicative list of the main stakeholders in each country will be provided by the NFIs.

4) DATA COLLECTION

Data collection in 16 communities where the value chains will be optimised and improved. A complete data collection will be conducted for the 16 selected value chains to complete a baseline for a minimum of the following key performance indicators (KPI):

- Average income of MSMEs in communities whose enterprises are energy-intensive.
- Access to energy services and energy consumption in each of the steps of the value chain.
- Number of persons employed in the agribusiness MSMEs in targeted communities (disaggregated by male/female-owned and age groups)

Given the high variability of useful data from one value chain to another (fuel consumption, emissions…), further details on the questionnaire containing these KPIs will only be provided after their selection.

When possible, countries will provide with the most recent data. However, the consultant must foresee 1 trip to each of the 4 countries for data collection.

This item must be included as a separate item in the financial proposal and its conveniency will be evaluated only after selection of VCs.

5) PRODUCTION OF FINAL REPORT.

Finalisation of Gaps Assessment Report, that must include the minimum following information:

- Description of Value Chains
- Baseline study of the 16 value chains
- Recommended maximum energy consumption for the value chains.
- GAP assessment
- Proposed activities to fill the gaps. Identify the pain points along the value chains as well as propose specific interventions prioritised by the countries.
- Risk and identified issues (for example, too ambitious activities, inappropriate activities for all countries, etc.).
- Estimate the costs and benefits of each value chain, including technologies.
- Investigate commercial competitiveness of solar or other sustainable energy solutions, including waste to energy, in the agricultural value chain and the extent of its affordability as an alternative source of energy for end users. Calculate the greenhouse gas emissions (GHG) savings to be derived from the renewable energy sources.
- Establish a roadmap for implementing the interventions.

4. DELIVERABLES, REPORTING and indicative SCHEDULE

Kick-off meeting	Meeting to be held one week after award
Deliverable 1: Initial Report	- 4 weeks after kick-off meeting
Deliverable 2: Baseline study after data collection	- 6 weeks after approval of 16 value chains
Deliverable 3: Final Gap Assessment Report	- 4 weeks after approval of the baseline study

Reports will be submitted in electronic format and will contain references and literature consulted for the purposes of the mission. Minutes of meetings to be received within 3 days after the meeting and will be included in an annex of the reports.

The experts are obliged to respond by revising their deliverables and providing clarification to any demand for improvement, corrections and response to comments for the period up to 1 month after the end of the mission without special remuneration.

The final report and its recommendations shall be operational and supported by solid arguments. The final report shall be of high quality, well written, concise and to the point. Figures, facts and numbers (for example energy access figures) shall be linked to the sources from which they are derived.

5. EXPERTS PROFILE

The proposed team is composed of two (2) experts. A Team Leader will advise and coordinate activities.

Expert 1	Team Leader / Energy Expert
Category of expert	Senior expert, international work references

Expert Profile	Qualification and skills
	- University degree (or equivalent) in engineering, physics, energy law, agriculture, environmental sciences, socioeconomics, or relevant areas;
	- Fluent in English and French spoken and written
	- Excellent reporting, structuration, and communication skills;
	Professional Experience
	- Over 20 years of general professional experience;
	- Experience in project management, scoping studies, and analysis of multidimensional information.
	Specific professional experience
	- Minimum 10 years of experience with sustainable energy;
	- Work experience in SSA countries. Knowledge of West African institutions will be an advantage.
	- Familiar with climate change issues;
	- Previous experience in projects related to the following topics:
	   • Productive uses of energy
	   • Energy efficiency
	   • Water Energy and Food Nexus.

Expert 2	Environmental expert
Category of expert	Senior expert, international work references
Expert Profile	Qualification and skills - University degree (or equivalent) in engineering, physics, energy law, agriculture, environmental sciences, socioeconomics, or relevant areas; - Fluent in English and French spoken and written - Excellent reporting and communication skills;

	Professional Experience
	- Minimum 10 years of general professional experience;
	- Experience in scoping studies, analysis of multidimensional information.
	Specific professional experience
	- Minimum 5 years of experience with sustainable energy;
	- Experience in sustainable energy / climate change in Sub-Saharan Africa;
	- Previous experience in projects related to the following topics:
	    • Productive uses of energy
	    • GHG calculation.
	    • Environmental, gender and social impact assessment

6. LOCATION AND DURATION

Location*:* The work will be home-based.

Duration: The total duration of the assignment will be around **50 working days,** broken-down as follows.

	Home based work
Expert 1	35
Expert 2	15

The offered working days/months for the experts may differ from the estimation mentioned above, according to the proposed strategy and the associated workload in achieving the required outputs as defined in the scope of work. However, the total may not exceed the above-mentioned expert days for each expert.

Short trips: The interested consultants must propose as a separate item a short trip to each of the 4 countries (5 days each) to assess the communities and value chains selected.

7. OTHER INFORMATION

7.1 Language of the mission

The language of the mission will be English and French. The report and annexes will be in English.

7.2   Acceptance of deliverables, comments and closure of mission

The different versions of the reports will be sent to ECREEE and 4 NFI's. They will make comments on them within 15 days and final virtual meeting will be organized for adoption.

The Consultancy firm will be responsible to take into account the comments and for the presentation of the final report. If the report has many comments or is not compatible with the requirements of the Terms of Reference, it will have to be re-worked and re-submitted. After approving the deliverables by ECREEE and NFIs, the mission will be closed.

8. Evaluation Criteria

Proposals will be evaluated on the basis of:

  a) Implementation methodology;

  b) Experience of Contractor /team; and

  c) Cost effectiveness / financial proposal

9. Electronic applications

The electronic application contains the following documents:

  1) Technical proposal including
      - Work description and methodology.
      - CV of the consultants (copy of university degrees, certifications, licenses, etc should be included in Annex);
      - Work experience related to the fields requested in section 5.

  2) Financial Proposal in Euros (including all costs and taxes in a detailed work-time-expert-diagram indicating daily rates for individual team members). All costs are to be in Euros.

Interested consultancy firms should submit application with the above documents by e-mail through: baseline-ce@ecreee.org clearly indicating in the subject: "Consultancy Services for baseline studies and selection of value chains". The extended deadline for submission: **10 November 2023, 23h59 Cabo Verde local time (00:59 GMT).**

For any additional information on the proposal, you can contact Vanesa Martos Pozo at vmartos@ecreee.org, cc adeoliveira@ecreee.org

Annex 1: Value Chain (VC) Competitiveness Appraisal Tool Matrix

Selection criteria and sub-criteria	Weight	Key Analytical Questions	Data Sources
Competitiveness Potential	**45%**	Assesses potential for growth of the value chain	
Market demand	10%	Strength of domestic, regional and international market demand (current and projected). Has the end market been growing over the past 5 years and is it projected to grow?	· International trade data analysis, export growth trends and global market size growth trends (international and regional markets). · Domestic production and sales data over the past 5 years and trend.
Competitive advantage	15%	Do the selected countries have a long-term competitive advantage against key competitors in domestic or export end markets? Are there ready market opportunities in higher value segments?	· Qualitative assessment based on industry interviews · Interviews with end market experts and/or buyers, research on end market trends.
Upgrading potential	10%	Ability of the value chain to meet market requirements in higher value market segments and increase value added. Opportunities to address productivity gaps, via new technologies, processes and innovations, and improve competitiveness. Are required human resources available/can become available?	· Qualitative assessment based on industry interviews · Qualitative productivity benchmarking based on industry and end market interviews
Strength of investor interest/potential to attract future investments	10%	Presence of ready investors – are foreign and domestic investors looking for opportunities/seeing growth potential in the value chain? Are there key investors that have already begun investing in the selected countries and could be leveraged by the project?	· Data on foreign and domestic investment in the sector over the past 5 years and who are the key investors/potential private sector partners for the project · Qualitative assessment based on industry interviews
Systemic Impact	**40%**	**Assesses the breadth and depth of the impact of value chain growth.**	
Potential to benefit a large number of MSMEs	10%	Number of MSMEs involved (or could be involved) in the value chain and able to benefit from growth.	· Data on the number of firms engaged in the value chain, including an estimate of the number of small, medium and large firms (over the past 5 years)

Job creation potential	15%	Potential to create new high-value jobs within the project timeframe.	· Data on current employment in the value chain and, most importantly, the employment growth trends in the past 5 years
Economic opportunities for women and youth	5%	Opportunities for women, men and youth via self- employment or employment.	· Data on share of women and youth employed · Qualitative assessment based on interviews
Local supply chain linkages	5%	Opportunities for local suppliers and domestic backward linkages.	· Qualitative assessment based on industry interviews
Impact outside selected towns	5%	Will working in this value chain yield benefits to regions outside of selected towns?	· Qualitative assessment based on industry interviews · Data on MSMEs and employment from above, disaggregated by regions or by selected towns/outside of selected towns
Feasibility	**15%**	**Assesses the ability to achieve results within the project timeframe.**	
Private sector dynamism	5%	Strength of private sector leadership (presence of an association; readiness of private sector to invest; active participation of leading firms and vision for growth).	· Qualitative assessment based on industry interviews
Potential to leverage project investment via PPPs and other partnerships (sustainability)	5%	Existing eco-system for investment in the VC. Are the institutional structure, workforce, infrastructure and other elements in place to capture investor interest?	· Qualitative assessment based on industry interviews
Alignment with governments priorities	5%	Alignment with the Governments development priorities.	· Review and analysis of all relevant government strategies