Terms of Reference (ToR):
Environmental Safeguard Expert (Intermittent) for SREP-Supported Extended Biogas Project

1. Introduction

Nepal is one of six pilot countries identified for assistance under the Scaling-up Renewable Energy Program in Low Income Countries (SREP) by the SREP sub-committee. As one of three programs under the Strategic Climate Fund, SREP aims to demonstrate the social, economic and environmental viability of low carbon development pathways in the energy sector. In particular, the objectives of SREP in Nepal are to: (i) leverage complementary credit and grant co-financing, (ii) bring about transformational impacts through scaling up energy access using renewable energy technologies (RETs), poverty reduction, gender and social inclusiveness and climate change mitigation, and (iii) ensure sustainable operations through technical assistance and capacity building. Government of Nepal had originally submitted the Nepal SREP Investment Plan to the SREP sub-committee in October 2011, and submitted a revised Waste to Energy component of the Investment Plan in March 2012. The Government of Nepal (GoN) has designated the Ministry of Finance (MoF) and the Ministry of Energy, Water Resources and Irrigation (MoEWRI) as the focal points for SREP. MoEWRI has designated the Alternative Energy Promotion Centre (AEPC) as the lead agency for SREP-related activities under the guidance of MoEWRI.

The SREP- Supported Extended Biogas Project, one of the SREP components aims to promote large off-grid biogas energy generation in the country where sponsors are commercial enterprises or municipalities. SREP seeks to deliver two primary categories of benefits from the use of its financial support: (i) increased access to renewable energy and (ii) increased production of renewable energy. The project consists of two components; Technical Assistance and Financing of Investments.

2. Background

To cost effectively and sustainably manage Nepal's wastes - municipal, institutional, agricultural, and forests included, the World Bank (WB) is proposing an innovative, private sector-led Waste to Energy and Resource Recovery Program (WTEP). The WB's Scaling Up Renewable Energy Program (SREP) proposes to recover energy, mostly biogas and useable resources from large-scale wastes generated by the Nepal's municipalities and institutions. The GON's Ministry of Energy, Water Resources and Irrigation (MoEWRI) has designated one of its units, the Alternative Energy Promotion Center (AEPC) as the lead agency for the SREP engagement, to deal with SREP-related activities.

It is, however, important to note that the sorting of the Municipal Solid Waste (MSW) for re-use, re-cycling and energy recovery can be only conducted when economic incentives are clearly recognized and the wastes are properly collected. Items of value include: paper, metals, glass bottles and plastic bottles as well as other plastic and glass items that generally exist in waste coming from households or institutions in Nepal.

The SREP requires undertaking environmental due diligence to assess the environmental implications of developing waste to energy projects. To achieve these objectives, the SREP requires preparation of relevant environmental documents to assess potential impacts; one key document is the Environmental Management Framework (EMF). The EMF is proposed as an instrument to identify, assess, mitigate and monitor environmental risks associated with the project.

3. Objectives of the Assignment

To lead, coordinate and ensure the implementation of the Environmental Management Framework (EMF) for all Waste to Energy projects under the Scaling-up Renewable Energy Programme in Nepal. The Environmental Expert will be responsible for overall management, oversight and monitoring of implementation of environmental measures in the SREP.

4. Scope of Work (activities)

The scope of work shall include following, but shall not necessarily be limited to the following

- To provide intermittent inputs on SREP/Extended biogas project and lead EMF related matters
- Review and suggest modification, if required, the EMF simplified checklists for project proposals developed by the EMF consultant.
- Prepare annual plan for environmental training/ orientations, get AEPC approval, and train/ orient the Waste to Energy project developers on the application of EMF guidelines and checklists for Waste to Energy projects; train/ orient the bioenergy section at AEPC in reviewing EMF section of Waste to Energy project proposals; and train the Province Engineers in reviewing and monitoring the application of the EMF guidelines in Waste to Energy projects.
- Review each environmental screening and categorization proposed by the developer/ proponent, verify independently, suggest revision (if necessary), and recommend clearance to the screening & categorization. Site visit may be needed in the process.
- Incorporate an EMF assessment and screening process as part of the Waste to Energy project proposal evaluation procedures.
- Review draft ToR submitted by proponent/ developer for IEE or ESA, as needed, for submission by AEPC to the World Bank for review, and to the concerned government authority for approval.
- Review ESMP reports, suggest modification/ improvement (if necessary), and recommend AEPC for approval. Site verification may be needed in the process.

- Review IEE or ESA Reports submitted by the proponent/ developer, ensure adequacy and quality as per approved ToR, and support AEPC in submitting the report to the Ministry for final approval.
- Coordinate with and inform/ update the World Bank in matters related to EMF application including screening and categorization, ToR, ESMP, IEE and ESA.
- Review the DFS/ DPR as well as bid documents of each subproject and certify that environmental mitigations, recommended in screening, ESMP/ IEE or ESA, are incorporated in the respective DFS/ DPR.
- Provide support to Waste to Energy project developers in preparing the ESMP/IEE or ESA for each particular project.
- Review, screen and assess all EMF applications of Waste to Energy project proposals and carry out field visits to verify the developer's results and conclusions in conjunction with local stakeholders during the project proposal stage. Ensure all Waste to Energy project proposals comply with the EMF guidelines.
- Recommend measures to be undertaken by developers where non-compliances are identified in their Waste to Energy project proposals in order to meet EMF requirements, national legislation and standards, and World Bank's criteria.
- Monitor the implementation of all measures outlined in the ESMF application as part of the project proposal throughout the project cycle (design, construction, commissioning, operation and maintenance).
- Coordinate with project manager to ensure that proponent/developer regularly (monthly) monitors and reports the progress in environmental mitigations and compliance to AEPC. Review the monthly reports submitted by the proponent/ developer, and provide feedbacks or instruction, if necessary.
- Carry out central level supervision / monitoring (every three month) to check compliance and verify progress in mitigation works, and to advise timely corrections of any shortcomings. Central monitoring by EMF Office should be done as follows: (i) Category C subproject - every three month (in the beginning), and in future, the monitoring by Environmental Expert may be done in about 10 % samples (based on the need). (ii) Category B subprojects - every three month in each subproject.
- Prepare draft ToR for independent monitoring of the environmental compliance and progress in implementing environmental mitigations (the ToR to be reviewed by AEPC and World Bank).
- Prepare three-monthly status of environmental compliance/ progress/ status in the SREP; and submit to AEPC and to the World Bank.
- Assist in standardization of large biogas plant designs especially from the environmental and bio-technical point of view.
- Assist program officer/manager, from environmental side, in day to day activities related to Biogas program including budgeting, planning and design and execution of activity plans.
- Work towards identifying and resolving environmental issues that affect proper functionality of large biogas plants.

- Guide, advise and ensure that the developer/ proponent consult affected people/ parties/ stakeholders in accordance with EMF during preparation of specific safeguard document and implementation of mitigations.
- Ensure that ESMP, IEE or ESA (safeguard instruments) are translated, disclosed, and disseminated as required in the EMF.
- Any other tasks assigned by project manager to support in project implementation from environmental aspect.

5. Performance and Reporting Requirement (Deliverables)

- Revised tools for EMF implementation such as checklist, formats, etc for project developers
- Bio energy sections staff, province engineers and Waste to Energy Project Developers trained on EMF methodology
- Each subproject is screened and categorized as required in the EMF (screening reports).
- Specific ToRs prepared for environmental instrument (as needed) for each subproject
- Each subproject safeguard documents prepared, reviewed, cleared as per provision in the EMF
- DFS/DPR of each subproject incorporates environmental recommendations made in the respective safeguard documents.
- Environmental monitoring reports produced and recorded.
- EMF screening and assessment process included as part of the project proposal evaluation criteria
- All Waste to Energy Projects complying with EMF recommendations
- Policy recommendations on enforcing EMF compliance

6. Duration of Service

The Expert will be assigned for the project period, i.e.31st August, 2021 with a provision of renew of contract, in case of satisfactory performance. The expert is expected to work on **Intermittent Input**. Estimated average input per month will be 12 days within Kathmandu valley with required travels outside Kathmandu valley within Nepal on project related matters.

7. Expert's required Qualification and Experience

Candidate should have at least a master's degree master's degree in Environment Science/Environmental Engineering/Environmental Management of related discipline with minimum 7 years experience in total and 5 years experience in development projects related to environment.

The candidate should also have:

- Experience in implementing international environmental safeguards
- Proven experience and exposure to biogas energy sector considering implementation of EMF related activities in the past.
- policies/standards (e.g. World Bank, ADB, etc);

- Excellent knowledge of the English language (both spoken and written) and excellent communication skills;
- Ability to build capacity and train various stakeholders
- Knowledge and/or familiarity with the rural communities such as those where the works may be located;
- Ability to work well with Government officials and community personnel;
- Experience on Waste to Energy projects would be considered an advantage

- Deep knowledge in environmental management framework of local governments;
- Strong and demonstrated capacity for organization, management with excellent reporting and coordination skills;
- Strong leadership, technical competence and professional skills for timely implementation, coordination and management of activities;
- Ability to work in a team, develop synergies and establish effective working relations with various stakeholders;
- Strong interpersonal and communications skills, resourcefulness, initiative, tact and ability to cope with any situation;
- Openness to change and ability to receive/integrate feedback;

8. Facilities and logistics to the expert by the Client:

The Expert will be provided with the office space, computer with internet facilities, and office furniture. Necessary stationery, printing and copying facilities will also be provided by the Client.