Terms of Reference

For a consultant to develop a biogas professionals' portal with workforce mapping

About SNV

SNV is a mission-driven global development partner, rooted in the contexts and societies where we work. And that mission is to strengthen capacities and catalyse partnerships that transform the agri-food, energy, and water systems to enable sustainable and more equitable lives for all. We are one team of over 1,600 people, the vast majority of whom come from the contexts where we work, in more than 20 African and Asian countries.

SNV has been at the forefront of national development in Kenya, working with the government, local development partners, knowledge institutes, the private sector, and low-income communities since its establishment in Kenya in 1967. SNV seeks to continuously develop and strengthen partnerships with organizations and initiatives that help build local capacity and empower communities to break the cycle of poverty.

The African Biodigester Component (ABC) Project-Kenya

The ABC Project is implemented by a consortium between the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and SNV Netherlands Development Organisation (SNV). GIZ is the consortium lead, whereas SNV is the implementation partner. This consortium is considered the Lead Implementer (LI) for the ABC project in Kenya.

The ABC-K project seeks "to achieve a sustainable, stable and growing market for biodigesters that significantly contribute to achieving national sustainable agricultural production, energy access and climate targets, by following a market-based approach to triggering demand, promoting the supply of high-quality technology and services and improving the enabling environment." Specifically, the project aims to facilitate a shift in the biodigester market from its pioneering to the expansion phase.

Within the context of these overarching objectives of the Project, SNV seeks to drive a proactive and supportive enabling environment for biodigesters in Kenya, while also supporting the demand side for biodigesters through targeted awareness-raising measures. As a cross-cutting objective, gender and social inclusion interventions will be implemented under the project, while driving greater gender equality within the wider biodigester sector.

Background and motivation

In 2022, the ABC project conducted a study on the enabling environment and capacity building for small and medium-sized biodigesters in Kenya[1], identifying policy and institutional gaps and opportunities. The project emphasizes the importance of a robust enabling environment that ensures the quality and professionalism of biodigester construction and installation services.

A key finding was the absence of provisions for licensing and listing biodigester enterprises and professionals, leaving the sector vulnerable to inconsistencies in the quality of installations. The construction of efficient, safe, and durable biodigesters requires not only

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[1] https://www.snv.org/update/addressing-gaps-enabling-environment-small-and-medium-scale-biodigesters-kenya

quality products but also skilled and knowledgeable professionals. Although various organizations and programs have trained masons over the years, there is currently no national licensing, certification, or listing procedure for biodigester installers. The absence of such a system compromises quality assurance and undermines public confidence in the sector.

To address these challenges, the study recommended establishing a certification system for biodigester installers as part of efforts to professionalize the sector. The study emphasized the importance of creating a public registry of certified and licensed installers, accessible to all stakeholders. Such a registry would serve as a critical resource for consumers, government agencies, and private sector players, ensuring transparency and promoting accountability within the sector.

Building on these insights, the ABC Kenya project aims to operationalize these recommendations through the development of the Biogas Professionals Portal with Workforce Mapping. This platform will provide a publicly accessible database of NITA-certified biodigester installers, including detailed information on their geographical locations, skill sets, and certification status. By incorporating an API-based certification reconfirmation tool, the portal will enable real-time validation of certifications, further enhancing transparency and trust in the sector.

In addition to the development of the public registry, there is a need to integrate the portal with the Biogas Knowledge Base Platform currently under development. Linking these platforms will enable cross-platform navigation and access to critical resources such as USSD services, training materials, policy updates, and sectoral guides, ensuring users have a comprehensive resource hub. This integration will also support efforts to build capacity, share best practices, and disseminate knowledge across the biodigester sector.

1. Objectives of the assignment/consultancy

The objective of this assignment is to develop and operationalize the Biogas Professionals Portal with Workforce Mapping, which will:

- Facilitate public access to verified information about NITA-certified biogas masons.
- Incorporate GIS mapping tools to display workforce geographical distribution for equitable service delivery.
- Integrate an API-based certificate reconfirmation tool to validate NITA-issued certifications in real-time.
- Enhance public confidence in biodigester installation services by promoting quality assurance and transparency.
- Integrate seamlessly with the Biogas Knowledge Base Platform.

Scope of Work

The scope of work for the Consultant will include but not be limited to:

a. Stakeholder Engagement

- Conduct consultations with key stakeholders, including NITA, training institutions, county governments, and biogas industry actors, to define system requirements and gather input for the portal.

- Identify essential data fields, certification details, and user interface preferences.

b. Development of the Portal Framework

Design a user-friendly and interactive portal with the following core components:
- Searchable Directory: A database of NITA-certified professionals, searchable by name, location, skills, and certification status.
- Mapping Tool: Integration of GIS features to display the geographical distribution of certified biogas masons, enabling users to locate professionals in their regions.
- Detailed Profiles: Individual profiles showcasing certification details, skills, years of experience, and contact information.
- User Feedback System: A feature allowing users to provide ratings and reviews of services rendered by certified professionals.

c. Integration with the Biogas Knowledge Base Platform

- Link the portal with the Biogas Knowledge Base Platform to allow cross-platform navigation and access to additional resources such as training materials, policy updates, and sectoral guides.

d. Integration of a NITA Certificate Reconfirmation Tool with API

- API Integration: Develop and integrate an API interface between the Biogas Professionals Portal and the NITA certification database. This will enable real-time validation of NITA-issued certificates for masons.
- Real-Time Certificate Verification: Implement a system where the portal sends certificate requests to the NITA API, verifying the status of certifications automatically and providing results to the user instantly.
- Certificate Information: The API will return key certification details such as certification validity, training institution, and expiry date. If the certification cannot be verified, the system will return an error or "not found" message to the user.
- Security: Ensure that the API design incorporates secure authentication and data protection protocols to prevent unauthorized access and ensure data privacy.
- User Interface: Integrate the API responses into the portal's user interface, where users can easily see whether a mason's certification is valid, including any additional details like expiration dates or institution verification.

e. Data Collection and Validation

- Compile and validate data on NITA-certified masons, ensuring the accuracy of information displayed on the portal.
- Establish mechanisms for regular updates and maintenance of the database to accommodate new certifications or changes.

f. Communication and Public Awareness

- Develop user manuals and IEC materials to promote the portal and its functionalities to the owners, public, county governments, and industry stakeholders.

2. Timeline & Deliverables

This assignment is expected to be carried out for 30 professional days for the lead consultant, beginning March 2025. The table below highlights the anticipated deliverables.

- Inception report outlining the methodology, work plan, and stakeholder engagement strategy.
- Technical portal framework report detailing structure, features, and operational guidelines for the portal.
- A verified list of NITA-certified biogas-trained professionals.
- Functional digital portal, which is user-friendly with integrated directory, mapping, certificate reconfirmation (via API), and feedback tools.
- Training user manuals and IEC materials.
- Final report summarizing activities, lessons learned, and sustainability recommendations.

	Task	Consultant Professional Days
1	**Phase 1- Inception** Inception report detailing the methodology to be used, activity plan and stakeholder engagement plan.	3
2	**Phase 2- Stakeholders engagement and analysis for the system development** Conduct consultations with key stakeholders, including NITA, key stakeholders, and biogas industry actors, to define system requirements and gather input for the portal.	12
3	**Phase 3- Development of a functional digital portal** Functional digital portal, which is user-friendly with integrated directory, mapping, certificate reconfirmation (via API), and feedback tools.	12
4	**Phase 4- Integration with the Biogas Knowledge Base Platform** Link the portal with the Biogas Knowledge Base Platform to allow cross-platform navigation and access to additional resources such as training materials, policy updates, and sectoral guides.	3
	Level of Effort (days) for the lead consultant	**30**

3. Criteria for Evaluation

Technical proposal including:

i. Individual Consultant experience in previous similar assignments and reputation – Past performance, references for the work performed in the last five years with at least 2-3 assignments in Kenya (20%)
ii. Demonstrate past work in the renewable energy, biodigester sector, and working knowledge of systems development in Kenya or East Africa (20%)
iii. Clear comprehension of the ToR, detailed methodology and workplan (20%)
iv. Directly relevant academic qualifications like degree in IT, Systems development, renewable energy or another technical field (20%).

Financial Proposal (20%)

i.   Must be inclusive of all applicable taxes in Kenya (WHT/VAT).

4. Qualifications of lead consultant/firm of consultants

a) Academic Qualifications
At least a master's degree in a relevant field in IT, renewable energy, with a good understanding of the systems development process.

b) Experience
- A proven track record in developing public-facing digital platforms with features such as directories, mapping tools, and secure data validation.
- Demonstrated experience in API development and integration, particularly with government or institutional databases.
- Prior experience working on projects in the energy sector, renewable technologies, or similar contexts.
- Expertise in implementing GIS solutions and location-based services.
- Familiarity with certification frameworks and institutional requirements like those of NITA and EPRA.

c) Skills and Competencies
- Software development and system integration, data security and compliance
- Project management and stakeholder engagements.
- Ability to work with minimal supervision.
- High level written and oral communication skills in English and Kiswahili
- Must be result-oriented, a team player, exhibiting high levels of enthusiasm, tact, diplomacy, and integrity.
- Evidence of having undertaken similar assignments
- Experience in research, policy influence/advocacy and programming-related work.

5. Proposal submission.

Interested and qualified firms/individuals are required to submit **separately**, a technical and financial proposal that includes the following:

Technical Proposal
- The lead consultant and support team's qualifications and experience for task execution.
- Comprehension of the task, showcasing relevant background knowledge.
- Proposed strategy and methodology for task execution, emphasising how the applicant will meet the requirements of this Terms of Reference (ToR).
- Past involvement in similar assignment(s).
- Comprehensive work plan detailing the activities.

Financial proposal

- Total budget (in Kenya shillings) aligned with the work plan.
- Breakdown of daily costs for the lead consultant and other team member(s).
- Individual consultant/expert's PIN Certificate copy.
- Valid Tax Compliance Certificate copy.

Payments will be based on outputs, i.e. upon delivery of the services specified in the ToRs.

The consultant is expected to be based in Nairobi and no travel costs or subsistence allowances shall be paid, as the tasks do not need any travel outside Nairobi.

6. Submissions

Upload separate technical and financial proposals via Smart Recruiters portal via the "I'M INTERESTED" button on the advertisement, no later than Friday, 28th February 2025, by 17:00hrs with the documents saved as follows below –

a. **Technical Proposal**- **Request for a consultant - develop a biogas professionals' portal with workforce mapping.**
b. **Financial Proposal- Request for a consultant - develop a biogas professionals' portal with workforce mapping.**

SNV will notify all applications via email. SNV may reach out to request additional information or clarification.