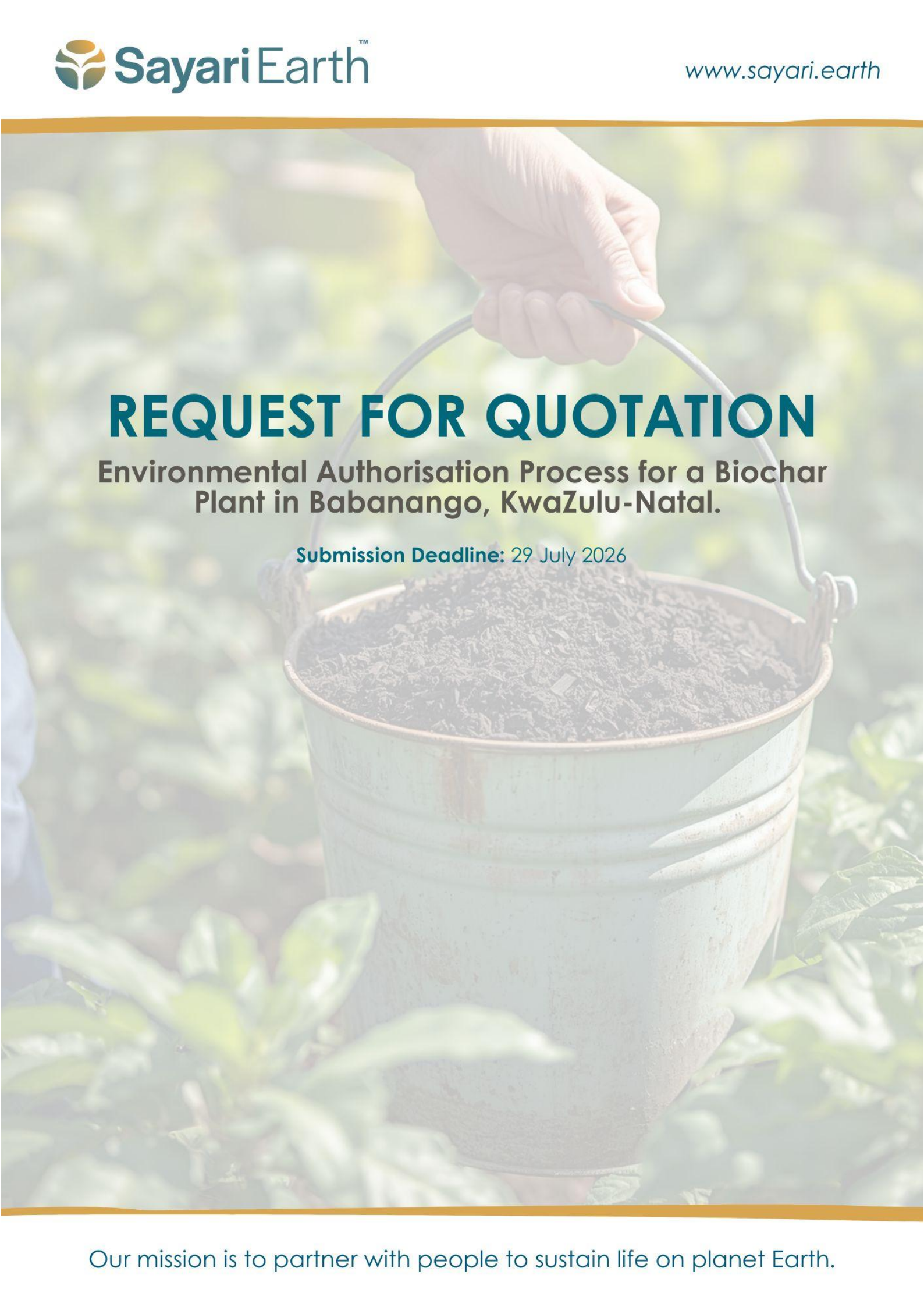




REQUEST FOR QUOTATION

Environmental Authorisation Process for a Biochar Plant in Babanango, KwaZulu-Natal.

Submission Deadline: 29 July 2026

1. Introduction

This Request for Quotations (RFQ) outlines the scope of work required for conducting an Environmental Authorization Process for a proposed biochar plant in Babanango, KwaZulu-Natal, South Africa. The process must be conducted in accordance with the relevant provisions of South African environmental legislation, including the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and associated regulations.

The purpose of the process is to assess the potential environmental impacts of the proposed biochar plant, identify and evaluate alternatives, and recommend mitigation measures to ensure compliance with relevant environmental laws and sustainable development principles.

The project proponent seeks to comply with South African environmental legislation and ensure that the project is sustainable and environmentally responsible.

2. About the Project

The proposed biochar plant will produce biochar through the pyrolysis of organic biomass. Biochar is a carbon-rich material used in agriculture, waste management, and soil improvement. While biochar production has potential environmental benefits, such as carbon sequestration and waste reduction, it may also have environmental impacts, including air quality concerns, water use, and potential impacts on biodiversity.

The key objectives of this project are to:

- Remove alien vegetation.
- Mitigate climate change
- Earn carbon credits in the process.

2.1 Project Description Summary

The proposed project involves the development and operation of a biomass pyrolysis facility for the production of biochar by the removal of invasive alien vegetation. The project is intended to support ecological restoration while generating verified carbon credits through carbon sequestration.

2.2 Location

The project will be located within Babanango Game Reserve in KwaZulu-Natal, South Africa. Specific site selection is guided by IAP (Invasive Alien Plant) feedstock availability (close to areas previously cultivated as plantations, containing *Eucalyptus* and *Acacia* species), transport logistics, environmental sensitivity, and landowner agreements. Exact coordinates will be confirmed during the site selection and permitting phase.

2.3 Scale of Development

The project will be implemented in two configurations:

- **Pilot phase (< 20 tonnes/month production capacity):** A small-scale demonstration or pilot pyrolysis unit will be established to validate feedstock supply chains, operational efficiency, and carbon performance.
- **Commercial scale (> 20 tonnes/month production capacity):** The project may commence at full commercial scale or expand through the addition of multiple pyrolysis units over time.

Depending on how the project site is defined and where the production capacity exceeds 20 tonnes per month, the development will require an AEL (Air Emission License) and trigger a **full Scoping and Environmental Impact Reporting (EIR) process** in terms of applicable South African environmental legislation.

Expansion is anticipated through modular scaling, including additional pyrolysis units as feedstock availability and project demand increases. If expansion can be applied to a single site (i.e., if Babanango is regarded as one premises), then only a Basic Assessment Process will be required.

2.4 Technology Overview

The project will utilise pyrolysis technology to thermally convert biomass derived from invasive alien vegetation into biochar under controlled, oxygen-limited conditions. The system may consist of modular, containerised, or fixed plant configurations, allowing for phased implementation and future expansion through the addition of further pyrolysis units as feedstock availability and market demand increase. Biomass will generally be chipped and air dried or by using residual heat from the pyrolysis kiln to an appropriate moisture content to improve process efficiency and biochar quality.

The pyrolysis process is expected to be largely self-sustaining in terms of energy, once operational. An external heat source may be required during start-up to bring the reactor to its operating temperature, potentially requiring approximately 20 kg of biomass or an equivalent fuel source, depending on the technology selected and reactor size. During pyrolysis, biomass is heated to temperatures typically ranging between 400°C and 700°C, causing it to decompose into three primary products: biochar, syngas, and condensable vapours. Once operating conditions are achieved, syngas, which can be captured and recirculated back into the system and combusted will be used to provide the heat required to sustain the pyrolysis process. This substantially reduces external energy requirements, improves overall process efficiency, and minimises greenhouse gas emissions associated with plant operations. Exact equipment specifications, including make and model, will be determined during the procurement and detailed design phases.

2.5 Process Overview

The general process will include:

- Identification and harvesting of invasive alien vegetation.
- Collection and sorting of biomass.
- Drying (natural or assisted, depending on moisture content).
- Pyrolysis of biomass in a controlled reactor system.
- Collection of biochar and by-products (e.g. syngas/ wood vinegar, tar where applicable).
- Post-processing such as cooling, screening, and optional activation or inoculation.
- Storage, transport, and distribution of biochar for soil amendment or carbon sequestration applications.

2.6 Stakeholders

The project may affect or involve the following stakeholder groups:

- Local landowners and farmers.
- Rural communities involved in harvesting or logistics.
- Municipal authorities and district planners.
- Environmental authorities (e.g., permitting and compliance bodies).
- Indigenous vegetation conservation and biodiversity groups.
- Employment and skills development beneficiaries.
- Transport operators and contractors.

- Carbon credit verification and certification bodies.
- Investment or Funding Agencies.

2.7 Associated Infrastructure

Depending on final site selection and scale, the project may require or interact with:

- Access roads (use existing access roads for biomass transport).
- Loading, storage, and processing yards.
- Temporary Pyrolysis plant structures (modular units, sheds, or container systems).
- Biomass handling equipment and drying areas.
- Water supply and storage infrastructure (if required for processing or fire control).
- Electricity supply (off-grid systems such as generators or renewable solar energy).
- Security fencing and site facilities (wildlife protection, office, staff amenities).
- Temporary storage areas for feedstock and biochar.
- Possible weighbridge or logistics control points.

No significant permanent civil infrastructure (e.g., bridges) is anticipated at this stage. Upon completion of operations, temporary infrastructure will be decommissioned, and disturbed areas will, where reasonably practicable, be rehabilitated and restored to a condition similar to their pre-project state.

2.8 Alternatives Considered

The following alternatives will be considered during project planning and environmental assessment:

- **No-go alternative:** Continuation of current land use without intervention.
- **Technology alternatives:** Different pyrolysis systems (batch vs continuous, containerised vs fixed plant).
- **Scale alternatives:** Pilot-scale implementation vs immediate commercial-scale deployment.
- **Location alternatives:** Siting based on ecological sensitivity, biomass availability, and logistics efficiency.
- **Feedstock alternatives:** Invasive alien vegetation species prioritised based on density and accessibility.
- **Operational alternatives:** Centralised processing hub vs multiple decentralised micro-facilities.

3. Project Objectives

The key objectives of the project are to:

- Remove invasive alien vegetation and support ecosystem restoration.
- Mitigate climate change through carbon sequestration in stable biochar.
- Generate verified carbon credits as a financial mechanism to sustain restoration activities.
- Create local employment and support green economic development.
- Improve soil health and long-term land productivity through biochar application.

4. Objectives of the EIA

The objectives of the EIA are:

- To identify the appropriate process for environmental authorisation (Scoping EIR / Basic Assessment / Registration under Norms and Standards).
- To identify, assess, and evaluate the potential environmental impacts (positive and negative) of the proposed biochar plant.
- To ensure compliance with the Environmental Impact Assessment Regulations, 2014 (as amended) and other applicable legislation (e.g. National Environmental Management Air Quality Act 2004 (Act No. 39 of 2004)).
- To identify and assess feasible alternatives to the proposed project.
- To propose mitigation measures to avoid, minimize, or manage adverse environmental impacts.
- To consult with stakeholders and ensure their concerns and inputs are considered.
- To compile the necessary documentation for public consultation and submission (including any application forms, public participation materials and reports).

5. Scope of Work

The Service provider (Environmental Assessment Practitioner (EAP)) must undertake the following tasks during the environmental authorization process:

5.1 Screening

Preliminary investigation of the site and requirements in context of the proposed project to identify issues, constraints, required specialist studies and possible authorization processes.

5.2 Project Description

In consultation with the project proponent and with input from relevant specialists, compile a detailed description of the proposed biochar plant, including:

- Location and site layout.
- Production processes and technology.
- Raw materials and resource requirements (e.g. biomass, water, energy).
- Anticipated emissions, discharges, and waste products.
- Reasonable and feasible alternatives.

5.3 Legal & Policy Context

Identify and review all applicable South African legislation, regulations, and guidelines, including but not limited to:

- National Environmental Management Act, 1998 (Act No. 107 of 1998).
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).
- National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).
- National Water Act, 1998 (Act No. 36 of 1998).
- Biodiversity Act, 2004 (Act No. 10 of 2004).
- Local municipal by-laws and Integrated Development Plans (IDPs).

5.4 Scoping

Compile a National Screening Tool Report, confirm Specialist Studies according to the relevant Protocols and conduct a detailed baseline study of the proposed project site, including:

- Soil, geology, and hydrology.
- Air quality and climate conditions.
- Biodiversity (flora and fauna).
- Socio-economic conditions of the surrounding community.
- Cultural and heritage resources.

5.5 Need & Desirability Considerations

The EAP must assess the need and desirability of the proposed biochar plant in the context of sustainable development principles and the specific socio-economic and environmental context of the project location and provide a clear and concise conclusion on the need and desirability of the project, considering the findings of the above assessments.

The EAP must clearly articulate how the project aligns with the principles of sustainable development as set out in Section 2 of NEMA. This assessment will consider:

5.5.1 Need for the Project

If the project is needed at this location and in this point in time by considering:

- Alignment with Local, Regional, and National Development Plans such as South Africa's National Development Plan (NDP), provincial growth and development strategies, and local Integrated Development Plans (IDPs).
- The contribution of the project to achieving national and international commitments, such as the Sustainable Development Goals (SDGs) and South Africa's Nationally Determined Contributions (NDCs) under the Paris Agreement.
- The requirement to remove Invasive Alien Plants under the National Environmental Management Act (NEMA), the National Environmental Management: Biodiversity Act (NEMBA), or other applicable environmental legislation.
- The need for the biochar plant in terms of job creation, economic growth, and poverty alleviation.
- The role of the project in promoting sustainable agriculture, waste management, and carbon sequestration.
- The potential for the project to contribute to local economic development and empowerment of historically disadvantaged individuals.

5.5.2 Desirability of the Project

Consider desirability of the project within the following contexts:

- **Environmental Context:** Determine the suitability of the proposed site in terms of its environmental sensitivity, including biodiversity, water resources, air quality, and land use; consider potential cumulative impacts of the project in the context of other existing and planned developments in the area.
- **Social Context:** Evaluate the alignment of the project with the needs and expectations of local communities; assess potential benefits, such as improved livelihoods, reduced waste, and enhanced agricultural productivity, as well as potential negative social impacts, such as displacement, health concerns, or disruption of local activities.

- **Technological and Sustainability Considerations:** Evaluate the appropriateness of the proposed technology in terms of its efficiency, environmental performance, and ability to meet the objectives of the project.
- Assess the potential for the project to contribute to sustainable resource use, including the use of renewable energy and the reduction of greenhouse gas emissions.

5.6 Public Participation Facilitation

Develop and implement a comprehensive public participation process in accordance with the EIA Regulations. This should include:

- Identification of Interested and Affected Parties (I&APs) including landowners, authorities, organisations and other affected parties.
- Notification of I&APs through appropriate channels (e.g., newspapers, site notices, letters, emails or direct communication).
- Facilitation of public meetings and stakeholder engagement sessions.
- Compilation of comments and responses reports from I&APs.
- Record keeping of all public participation materials and communication.

5.7 Impact Assessment

Verify and assess the potential environmental impacts of the proposed project in accordance with sensitivities identified through the National Screening Tool Report including but not limited to:

- Air quality impacts (e.g., emissions from pyrolysis process).
- Water resource impacts (e.g., water usage, potential contamination).
- Impacts on biodiversity and ecosystems.
- Socio-economic impacts, including potential benefits (e.g., job creation) and risks.
- Evaluate the significance of identified impacts using appropriate assessment criteria.

5.8 Consideration of Alternatives

Identify and evaluate reasonable and feasible alternatives to the proposed project, including:

- Alternative locations.
- Alternative technologies.
- The "no-go" alternative.

5.9 Mitigation Measures

Illustrate how the mitigation hierarchy has been applied and:

- Propose practical and achievable mitigation measures to address identified impacts.
- Develop an Environmental Management Program (EMPr) with specific actions, responsibilities, and monitoring requirements.

5.10 Compilation of Reports

Prepare and submit the following reports (draft and final):

- **Screening Report:** To provide a description of the site and requirements in context of proposed project to identify issues, constraints, required specialist studies and possible authorization processes
- **Scoping Report:** To identify key issues and outline the plan for the EIA process.
- **Environmental Impact Report (EIR):** To document the findings of the EIA and provide recommendations.
- **Environmental Management Program (EMPr):** To outline mitigation measures and monitoring plans.

Ensure that the reports are prepared in accordance with the requirements of the Department of Forestry, Fisheries, and the Environment (DFFE) or the relevant provincial authority.

5.11 Stakeholder Input on Reports

Incorporate input from stakeholders, including local communities, government authorities, and industry representatives, on the impact assessments and need and desirability of the proposed biochar plant.

Address any concerns or objections raised by stakeholders in the final assessment.

6. Deliverables

The following deliverables are expected from the EAP:

- **Screening Report:** Including issues, constraints, required specialist studies and possible authorization processes.
- **Inception Report:** Outlining the approach, methodology, and timelines for the relevant regulatory process.
- **Specialist Studies:** Reports on specific studies (e.g., air quality, biodiversity, hydrology) as required.
- **Draft and Final Basic Assessment Report (if applicable):** Including identification and assessment of impacts and proposed mitigation measures, incorporating comments from stakeholders and authorities.
- **Draft and Final Scoping Report (if applicable):** Including the terms of reference for EIR, public participation outcomes, and identified issues.
- **Draft and Final Environmental Impact Report (EIR) (if applicable):** Documenting the findings of the assessment and proposed mitigation measures. Incorporating comments from stakeholders and authorities.
- **Draft and Final Environmental Management Program (EMPr):** Providing a detailed plan for managing and monitoring environmental impacts.
- **Public Participation Report:** Summarizing the public participation process and inputs received.

7. Timeframes

The EIA process must adhere to the timeframes as stipulated in the EIA Regulations, 2014 (as amended). The EAP must develop a detailed project schedule, ensuring timely submission of all required reports and documents.

8. Expertise & Qualifications

The appointed EAP must:

- Be registered with the Environmental Assessment Practitioners Association of South Africa (EAPASA).
- Have demonstrated experience in conducting EIAs for industrial projects, particularly in the renewable energy or waste management sectors (Biochar projects would be preferable).
- Bring together and co-ordinate a multidisciplinary team with expertise in environmental science, air quality, hydrology, biodiversity, and socio-economic assessments.

9. Compliance & Reporting

- The EAP must ensure compliance with all applicable legal requirements and guidelines.
- All reports must be submitted to the relevant authority (e.g., DFFE or provincial environmental authority, Air Quality Officer) for review and approval.
- The EAP must provide monthly progress updates to the project proponent.

10. Budget & Financial Proposal

The service provider must submit a detailed financial proposal, including:

- Cost breakdown for each phase of the process.
- Costs for specialist studies.
- Costs for public participation activities.
- Cost for application fees.
- Any additional costs or contingencies.
- Payment terms should be outlined in the proposal, including any milestones for payment.
- Any assumptions / limitations / exclusions.

11. Submission of Proposal

Interested service providers must submit their proposals to aloha@sayari.earth by **17:00 South Africa Standard Time (SAST) on 29 July 2026**.

Any questions for clarification should be submitted by email to Kozette Myburgh at kmyburgh@sayari.earth by **22 July 2026**.

Proposals must include:

- Company profile and relevant experience.
- CVs of key team members.
- Proposed methodology and approach.
- Detailed project schedule.
- Financial proposal.

Late submissions may not be considered.

12. Evaluation Criteria

Proposals will be evaluated based on the following criteria:

- Compliance with the requirements of this RFQ.
- Relevant experience and qualifications of the EAP and team members.
- Methodology and approach.
- Cost-effectiveness of the financial proposal.

13. Contracting & Commercial Terms

The successful respondent will be required to enter into a services agreement with Sayari Earth before commencing work. The agreement is expected to include provisions covering data protection, conflict of interest, independence, anti-bribery and corruption, sanctions compliance, liability, termination and governing law.

Respondents should identify any material contracting assumptions, proposed exclusions, payment requirements or terms that may affect their quotation.

Sayari Earth looks forward to receiving quotations from qualified environmental consultancy firms interested in supporting the proposed biochar project.