

# TOR for Environmental Impact Assessment (EIA) study for setting up a Small-Scale Pilot Semi-Industrial brick production cluster in

.....

## 1. Context

.....  
.....The overall aim of the project is to minimise the impact of building material production on the environment while improving the livelihoods and working conditions of workers in the brick production sub-sector. The Project brings together a wide range of stakeholders along the construction value chain includes the building material producers, housing developers, contractors, labor, raw material suppliers, business service providers, authorities, training institutions, etc. ....in partnership with ..... and..... demonstrated the model of neighbourhood transformation in ..... in .... Following this initiative, the ..... extended its plan to city-wide neighbourhood transformation which incorporates self-supporting mechanism for main building material supply to reduce construction cost so that more affordable housing units to be built. In this regard, the project identifies clay reserve in the valley of ..... to produce perforated kiln-fired modern bricks.

.....in partnership with the ..... is seeking a certified consulting firm to undertake Environmental Impact Assessment (EIA) with focus on sustainable cycle of clay extraction and site rehabilitation for the valley of ..... abovementioned. The proposed site would be potentially transformed to a small-scale semi-industrial brick production cluster which will continue to supply clay bricks for other neighbourhood transformation projects of the ..... and other private investors and development partners.

## 2. Legal requirement

In the Organic Law N<sup>o</sup> 04/2005 of 08/04/2005 determining modalities of protection, conservation and promotion of environment in Rwanda, the Article 67 stipulates that Environmental Impact Assessment (EIA) is mandatory for approval of major projects, activities and programs in the Republic of Rwanda and for existing project an Environmental Audit needs to be carried out.

Further to this the project the proponent needs to take into account the requirements of the Mining Law N<sup>o</sup> 37/2008 of 11/08/2008 on mining and quarry exploitation and the Ministerial order N<sup>o</sup>004/Minifon/2010 determining the modalities of environment conservation in Mining and Quarry Extraction and also the Guidelines for Environmental Audit in Rwanda.

## 3. Project Area and Location

The EIA needs to focus on the setting-up a small-scale pilot semi-industrial brick production cluster in the plot number UPI: xxxx and its associated wetland all are located in ...District, ...Sector, ...cell, ...Village (see the Annex II Map showing the project area and location).

## **Project Objective**

The ... project aims at to minimize the impact of the building material production on the environment while aiming at the improvement of living conditions and well-being of workers and surrounding residents.

The EIA is to assist the project owner, stakeholders and community to understand the potential environmental impacts of the project and how to develop and set mitigation measures to reduce the negative impacts. This will be pursued by a comprehensive Environmental Management Plan (EMP) for the site which closely focuses on the sustainable cycle of clay extraction and rehabilitation, being integral part of the EIA study.

## **4. Scope of the EIA**

The following components in the brick factory set-up and operation will be examined in the EIA:

- Clearing of land;
- Draining of land;
- Removal of the overlay;
- Construction of a brick factory infrastructure (drying spaces, machines, kilns and related access etc);
- Excavation of clay as raw material;
- Transport of clay to the molding area;
- Storage of the clay during the aging/weathering phase;
- Rehabilitation of the quarries and pits areas;
- Factory waste management;
- Rapid socioeconomic analysis on the current land use by the cooperatives and livelihood situation.

## **5. Tasks**

### **Project site assessment**

Assess the following issues on which are expected to be impacted as a result of the brick production project implementation (through project life cycle):

- 1) Air environment: Impact on ambient air quality, environmental pollution from brick production activities, as well as the impact on working conditions from occupational safety and health perspective and health of both residents and workers;
- 2) Noise: Brick production activities noise Impact in ambient conditions, workers as well as residents;
- 3) Water environment: Life cycle of water resources both the surface and ground water quality;
- 4) Land environment: Land use and soil management including use of external soil;
- 5) Impact through disused / non-rehabilitated quarries and waste material: The excavated areas/quarries and open pits resulted from construction of brickyard infrastructure;
- 6) Ecological impacts (biodiversity both fauna and flora: the vegetation cover before and after the setting-up of the production facility due to removal of various sedges and grass/trees inevitable for the construction and operationalization purpose and replanting

grass/quarry rehabilitation;

- 7) Socio-economic analysis:
  - a. On farmers whom their day lives have been depending on farming activities in the proposed clay excavation and brickyard installation zones;
  - b. Main livelihood means of current land users and their alternative sources of living means which will indicate the employment opportunities existing in surrounding area
  - c. Pattern of land use by the cooperatives in the project area and how it will be affected by the clay extraction practice (positive and negative social impact)
  - d. Impacts on employment including self-employed on-site business activities throughout project implementation;
  - e. Impacts on public health and safety, in particular in relation to the current COVID-19 pandemic;
  - f. Risks to health and safety of the residents and brickyard employees;
  - g. Increased potential for fatal road accidents;
  - h. Impacts on cultural resources;
  - i. Impacts on aesthetics;
  - j. Disruption of settlements, social cohesion, and potential conflict;
  - k. Increased HIV/AIDS prevalence.

### **Impact analysis**

- 1) Analysis, evaluation and presentation of the initial state of the site on relevant environmental characteristics of the study area;
- 2) Examining critically the possible impacts of the construction of a brick factory and the clay extraction at the various sites, and describe the means proposed to avoid or mitigate any forms of harm and negative impacts;
- 3) Identify and propose appropriate mitigation and compensatory measures together with designs, master plan set-up, equipment description and execution procedures (as appropriate) to respond to these impacts or to avoid or reduce risks;
- 4) Identification of laws, regulations and guidelines (national and international) that govern the conduct of mining/quarrying; this includes standards and norms related to mining and quarrying activities, extraction practices and technologies, operational regulations and standards, etc.
- 5) Develop waste management plan of the products, by-products and waste generated by the project through its life cycle;
- 6) Develop Health and Safety Plan during the project lifecycle including the measures to prevent health hazards and to ensure safety and security in the working environment for the employees/contractors/citizen and for the management of emergencies;
- 7) Develop and propose Environmental Management Plan including reporting system and primary actors to undertake management responsibilities.

## 6. Deliverables and deadlines

### Deliverables and deadlines

The consultant will be entirely responsible for the process (visits, data collection and etc...) of EIA certificate issuance as per the requirement of RDB and produce the following deliverables.

<b>No</b>	<b>Deliverable</b>	<b>Deadline</b>
1	Outline of EIA report (English) after the initial registration at RDB	
2	Draft EIA report (English) with a brief presentation of the report to .....	
3	The ToRs as per the RDB requirement developed and uploaded Final EIA report (English) in A4 format <ul style="list-style-type: none"><li>• Four hard copies and soft copy in WORD and PDF</li></ul>	
4	EIA certificate issued by RDB <ul style="list-style-type: none"><li>• Original EIA certificate to .....</li><li>• Copy of EIA certificate to .....</li></ul>	

\*Date of the issuance of EIA certificate, even if indicative, shall be communicated by the Consultant to Skat upon registering the EIA process at RDB.

### Details of EIA report

See Annex I as a sample. Final outline will be proposed by the Consultant and finalised upon consultation with ....

## 7. Period

xxxx

The number of working days shall be verified and confirmed with \_\_\_\_\_ at the contract negotiation, taken into account the time constraint of the project and some preliminary work conducted by .....

## 8. Profile of certified EIA consultant

The eligible consulting firm should have experiences in conducting EIA in clay extraction site for brick production purpose at medium to large scale as well as other quarrying project. The consulting team will be headed by a team leader with profile of physical geography and minimum 10 years of experience in the geological survey in mining and quarry sector for sustainable resource management. Required the followings:

- Registration No as Environmental Impact Assessment Practitioner by Rwanda Association of Professional Environmental Practitioners (RAPEP)
- The lead consultant must have University Degree in Environmental Studies, Geography, Geology, and Economics or other related fields
- At least 10-year experiences in EIA
- Language proficiency in English, French, and Kinyarwanda is a must.

## **9. Method of payment**

TBD

## **10. Submission of proposal**

Eligible and interested consultants/companies should submit a technical proposal (not more than 5 pages) including the schedule of intervention in table format and a financial proposal (1 page Excel sheet) in electronic. The technical proposal should include the following:

- Description of activities at each stage of the assessment
- Description of methodologies
- List of EIA experiences in brickwork/brick factory project
- References
- Curriculum vitae

Eligible and interested consultant/ companies should submit a technical and a signed financial proposal in electronic format including the CV of the supervisors and the list of similar project that consultant has engaged to.....not later than.....

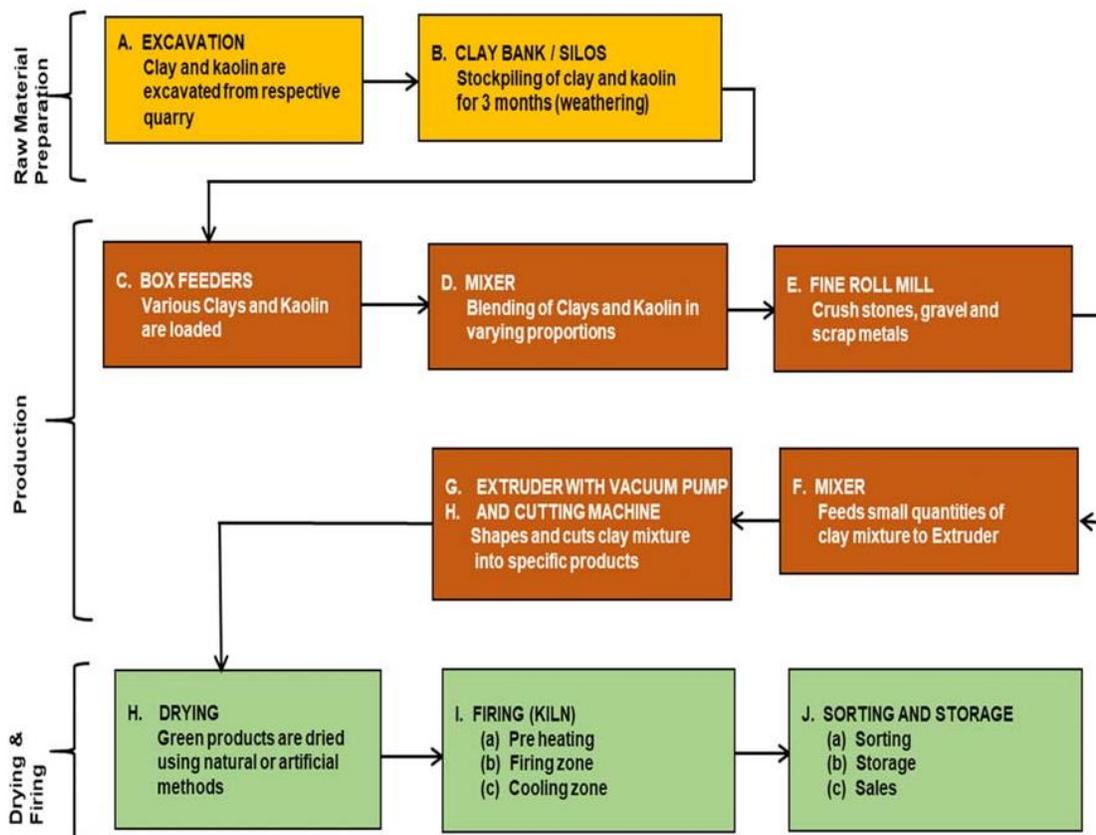
For inquiries please call ..... during office hours.

**ANNEX I: The following format for the reporting is suggested to be followed:**

1. Executive Summary.
2. Introduction and background to the EIA and audit:
  - Developer' and EIA Expert information;
  - Objectives and scope of the EIA study;
  - Objectives of the project.
3. Methodology used for the study:
  - Environmental screening, field studies and site surveying;
  - Environmental scoping;
  - Photographs, design and map;
  - Desk/literature review;
  - Data analysis and reporting.
4. Proposed project description:
  - Project background and Site definition;
  - Project construction components and zoning approval;
  - Nature and design component of the project;
  - Project design and description;
  - Project cost and budgets.
5. Baseline information for the study area:
  - Physical environment;
  - Biological Environment;
  - Socio Economic Environment.
6. Compliance with Legislative and Regulatory Considerations (policy, legal and administrative frame work).
7. Identification, analysis and mitigation of the anticipated impacts:
  - Potential Environmental issues and source of the impacts;
  - Existing impacts, identification and analysis;
  - Environment social impacts related to the project activities;
  - Impacts and mitigation measures.
8. Analysis of project Alternatives:
  - Overview, Proposed developments alternative;
  - The no action alternatives and alternative to site;
  - Analysis of the construction material and technology alternatives;
  - Solid and water waste management alternatives;
  - Utility supplying (water and electricity);
  - Mitigation for the proposed actions.
9. Environment Management and Monitoring Plan (EMP):
  - Environmental monitoring both internal and external;
  - Training and monitoring schedule;
  - Responsibilities for EMP implementation;
  - Environmental management plan for ..... rehousing project.

10. Public and community participation.
11. Conclusions and Recommendations of the author.
12. Appendices and references of relevant materials:
  - Photo logs;
  - Supporting documentation.

**ANNEX II: Illustration of a Brickyard workflow/ PRODUCTION PROCESS DIAGRAM**



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### ANNEX III: Map showing the Project Area and Location

