

CERTIFICATION

Hirad Industrial Development co.

Environmental Impact Assessment Report for the:

Molded Sponge Production Plant

(Made by Ghodrat Hirad Asia Co.

Company Registration Code: 48841

National Code: 14008467122)

Ordered by: Mr. Idris Farajullayev

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Signature:

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Potential impacts

Some of the positive impacts identified were Employment opportunities for workers, Improved sanitation and health, Cheap source of fuel from biogas, Provision of market for supply of building materials, Aesthetic improvement.

The negative Impacts associated with the proposed project (construction through to decommissioning phase) are:

impact	Mitigation measures
Solid waste generation and disposal	Sanitary bins for disposal of sanitary towels The proponent through a caretaker will ensure that the site is clean. Wastes from the biodigester can be used as manure Contract waste collectors to dispose waste at the council dumpsite
Air pollution/ nuisance from odors	Sprinkle water dusty materials such as gravel, sand, ballast Regular cleaning of the facility using detergents to kill smells Water for flushing the toilet should also be available Well designed biodigester/ airtight Use serviced machinery and vehicles for supply of raw materials
Noise pollution	Delivery of raw materials to site to be done only during the day Construction takes place at day time only No delivery of raw materials should be undertaken during weekends

	Use of serviced vehicles and machinery is also expected to reduce noise levels
Sourcing of raw materials	<p>The contractor will obtain construction raw materials from sources that are compliant with NEMA Regulations.</p> <p>The contractor will procure quantities that are sufficient for the intended works only to curtail wastage.</p> <p>The contractor will commit to extensive use of recycled raw materials as will be appropriate and in a manner that does not compromise the safety of the development</p>
Occupational Health and Safety of Workers	<p>The contractor will provide workers with appropriate PPE</p> <p>Fence site to prevent accidental falls into gaping holes</p> <p>Workers to be trained on equipment use</p> <p>First aid facilities to be available on site</p> <p>Contractor to comply with the requirements of the OSHA</p> <p>All visitors to the site to be provided with PPEs</p>
Fire hazard	<p>Expert advice on the use and maintenance of the biogas digester and related infrastructure</p> <p>Pressure gauge to detect stored quantity</p>



	Fire extinguisher/sand buckets/ water in the facility
Ground and surface water pollution	Wastes will be evacuated from the bio digester only after thorough decomposition Proper maintained of plumbing and associated works
Risk of disease spreading	sinks for hand washing after visiting toilet, Notices inside the toilet advising on importance of hand washing. toilets kept clean/ regular cleaning
Pests/ vermin outbreak	Proper cleaning of the toilet Use of biopesticides
Increased demand for water	Roof catchment will be installed to trap rain water for use The toilet will be connected to the existing piped water for the school Notices in the rooms to save water

1.2 Scope and objective

1.2.1 Scope

The scope of this Environmental Impact Assessment, therefore, covered:

- The baseline environmental conditions of the area,
- Description of the proposed project,
- Provisions of the relevant environmental laws,
- Identification of any adverse impacts to the environment anticipated from the proposed project,



- Appropriate mitigation measures,
- Provision of an environmental management plan

1.2.2 Objective

- To examine in detail likely positive and adverse environmental impacts associated to the proposed project
- To propose appropriate mitigation measures for the significant negative impacts
- To develop an Environmental and Social Management Plan

1.2.3 Terms of reference

- i. To collect relevant information that will be useful for the sub project report.
- ii. To assess and report on the location of the sub project including the physical area that may be affected by the sub project's activities.
- iii. To assess and report the nature, design and budget of the sub project.
- iv. To assess and report on the economic and socio-cultural impacts of the sub project to the local community and the nation in general.
- v. To assess and report the activities that shall be undertaken during the sub project construction, operation and commissioning phases.
- vi. To assess and report the materials to be used products and by-products, including waste to be generated especially during construction phase and the methods of their disposal.
- vii. To assess the potential environmental impacts of the sub project and develop the environmental management plan for the construction, operation and maintenance including mitigation measures as per LVEMPII ESMF guidelines.
- viii. To develop an action plan that ensures the health and safety of the workers and neighboring communities in the sub project cycle.
- ix. To fill in and submit the NEMA Project Report Form.
- x. To provide recommendation if any, for improving the existing environment screening process.
- xi. Prepare and submit a Project Report to NEMA.
- xii. To provide any other information that the NEMA may require.

1.3 The EIA Methodology Approach

The approach to this exercise was structured such as to cover the requirements under the EMCA, 1999 as well as the EIA regulations as stipulated under the Gazette Notice No. 56 of 13th June 2003. It involved largely an understanding of the project background, the preliminary designs and the implementation plan as well as commissioning. In addition, baseline information was obtained through physical inspection of the site and the surrounding areas, interviews with a sample of neighboring residents using questionnaires and discussions with the client.

The key activities undertaken during the assessment were:

- (i) Continuous discussions with the Client and other sources of information on the proposed project details, the site planning and implementation plan.
- (ii) Thorough physical inspections of the proposed site and interviews with the immediate neighborhood. A questionnaire was circulated to the residents to obtain their honest opinion regarding the project (samples have been annexed to this report).
- (iii) Evaluation of the activities around the site and the environmental setting of the wider area. This was achieved through existing information, literature and physical observations.
- (iv) Review of available documentation.
- (v) Reporting, review and submissions.



EMP for construction phase

Environmental impact	Mitigation measures	Responsible party	Time frame	Cost ksh
Sourcing of raw materials	<p>The contractor will obtain construction raw materials from sources that are compliant with NEMA Regulations.</p> <p>The contractor will procure quantities that are sufficient for the intended works only to curtail wastage.</p> <p>The contractor will commit to extensive use of recycled raw materials as will be appropriate and in a manner that does not compromise the safety of the development</p>	Contractor	During construction	Nil
Occupational Health and Safety of Workers	<p>The contractor will provide workers with appropriate PPE and ensure their use</p> <p>Workers to be trained on equipment use</p> <p>First aid facilities to be available on site</p> <p>Contractor to comply with the requirements of the OSHA</p> <p>All visitors to the site to be provided with PPEs</p>	Contractor, workers and site supervisors	throughout construction	10,000for procurement of PPEs

Solid waste generation and disposal	Provide waste handling facilities such as waste bins The proponent through a caretaker will ensure that the compound is clean	Proponent	Continuous	2000
Air pollution	Sprinkle water dusty materials such as gravel, sand, ballast during offloading Use serviceable machinery and vehicles for supply of raw materials	Contractor and workers	During construction	2,000 per month water bill
Noise pollution	Delivery of raw materials to site to be done only during the day No delivery of raw materials should be undertaken during weekends Use of serviceable vehicles and machinery is also expected to reduce noise levels	Contractor and transporters	throughout construction	negligible
Increased demand for water	The contractor to ensure prudent use of water resources during construction by avoiding wastage such as running pipes and taps	Contractor and proponent	During construction	negligible
Increased traffic and potential	Contractor will erect appropriate signage to designate the use of the Road by heavy commercial vehicles delivering raw materials Delivery of raw materials to be undertaken off-peak			

safety concerns				



EMP for operational phase

Environmental impact	Mitigation measures	Responsible party	Time frame	cost
Fire hazard	Expert advice on the use and maintenance of the biogas digester and related infrastructure Pressure gauge to detect stored quantity Fire extinguisher/sand buckets/ water in the facility	proponent	construction	10,000
Security of the facility and stock	Lockable doors and or entrances Community participation to encourage ownership Fencing of the facility	Proponent	continuous	10,000
Ground and surface water pollution	Wastes will be evacuated from the bio digester only after thorough decomposition Proper maintainance of plumbing and associated works	proponent	Continuous	-negligible
Risk of disease spreading	sinks for hand washing after visiting toilet, Notices inside the toilet advising on importance of hand washing. toilets kept clean/ regular cleaning	Proponent / student	continuous	No cost

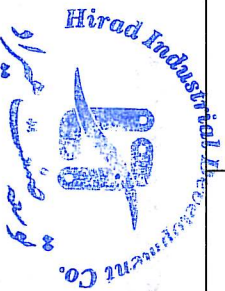


Pests/ vermin outbreak	Proper cleaning of the toilet	proponent	continuous	Use existing school staff
Nuisance from bad odor	Regular cleaning of the facility using detergents Water for flushing the toilet should also be available Well designed biodigester/ airtight	Proponent	continuous	Cleaning done by current school staff
Solid waste generation and disposal	Provide sanitary waste bins The proponent through a caretaker will ensure that the compound is clean Wastes from the biodigester can be used as manure	Proponent in	Continuous	3000
Increased demand for water	Notices in the rooms to save water The toilet will be connected to the schools water supply	Proponent	One off at construction phase	Implemented at construction phase



EMP for decommissioning phase

Environmental impact	Mitigation measures	Responsible party	Time frame	cost
Safety risks	The site will be fenced Collection and proper disposal of all waste Proper PPE will be provided to the workers on site	Contractor workers	Throughout decommissioning phase	-
Solid waste pollution	Segregate demolition material into different waste streams waste will be transported by a NEMA licensed waste Sale or donation of material for re use in construction	Proponent and contractor	Throughout decommissioning phase	-
Dust generation	Sprinkle water on to dusty material Speed limit on trucks that will be ferrying demolition material	Contractor	Continuous	-
Noise and vibration	Demolition works should be conducted only during daylight hours (6am – 6pm) Reduce reliance on heavy machinery	Contractor Proponent and	Continuous	-



CONCLUSION AND RECOMMENDATIONS

Conclusions

The EIA study has established that the proposed plant will not contribute to any pollution, noise, or safety hazards.

