



PRELIMINARY ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

**For Fruit Processing Facilities in Abura, Ayensu
and Anto-Essuekyir in Cape Coast Municipality**

FRUIT PROCESSING FACILITY IN CAPE COAST MUNICIPALITY



About the Project



The fruit processing industry is a growing sector in the Cape Coast Municipality, contributing significantly to the local economy by providing employment and boosting the agricultural sector. However, this growth comes with potential environmental and social challenges. The fruit processing facilities under assessment primarily engages in processing various fruits, generating by-products and waste materials that could impact the environment if not properly managed.

In response to these challenges, the University of Ghana Business School Innovation and Incubation Hub, working on a project funded by RISA, is training entrepreneurs on sustainable fruit juice processing that prioritise environmental and human related needs.

A key aspect of this initiative involves creating maker spaces to facilitate the practical and continuous operations of the trainees within the community. 3 main locations have been chosen. This assessment is done based on the locations selected.



Applicable Legislation and Standards

The assessment is guided by relevant Ghanaian environmental regulations, including:

- Environmental Assessment Regulations, 1999 (LI 1652), as amended (2002)
- Environmental Protection Agency Act, 1994 (Act 490)
- Water Use Regulations, 2001 (LI 1692)
- Labour Act, 2003 (Act 651)
- Children's Act, 1998 (Act 560).
- Waste Management Regulations

ESIA process, Approach and Methodology

This ESIA was conducted following the LI 1652 guidelines, focusing on:

- Identifying potential environmental and social impacts.
- Predicting the consequences of project activities on environmental and social receptors.
- Evaluating the significance of identified impacts.
- Developing mitigation measures to manage significant impacts.

Consultations, observations, and in-depth interviews were conducted with various stakeholder groups, including fruit juice producers, opinion leaders and people the communities to gather baseline information and understand their expectations.

FRUIT JUICE PROCESSING FACILITY IN ABURA



PRELIMINARY FINDINGS

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The preliminary findings of the ESIA are summarized as follows:

A. Air/ Water / Soil Quality.

The facility operations do not currently emit significant pollutants, thus having minimal impact on air quality. No measures have been implemented to minimize air pollution, as emissions are not anticipated to affect air quality standards.

The facility relies on filtered pipe-borne water for its processing operations, using approximately 100-150 litres daily during production. No significant impact on water quality is anticipated because the facility does not discharge wastewater indiscriminately into the environment. However, no significant measures are in place to prevent contamination of surface and groundwater.

The operational activities pose no risk of soil contamination. The soil fertility and structure around the facility will be preserved, as no significant disturbance is expected.



B. Noise Pollution/ Waste Management/ Energy Consumption

The facility generates some noise emissions during operation, primarily from machinery. However, the noise levels are not expected to impact the local community.

The main waste type generated by the facility generates is the fruit pomace and wastewater. Currently, wastewater is not treated on-site before discharge however the facility is open to implementing measures to reduce, reuse, and recycle the waste materials.

The facility primarily uses electricity from the grid to power its operations. An energy audit has not been conducted on the facility but there are plans to incorporate renewable energy sources into the facility's energy mix.



C. Biodiversity & Ecosystem/ Land use

The facility's operations have minimal impact on local biodiversity. Natural habitats are preserved, and there are no significant disruptions to local flora and fauna.

There are no significant impacts on nearby land use patterns, and sensitive areas such as residential zones have been considered.



D. Health & Safety/ Social Impact/Environmental Laws & Regulations

There are no significant occupational health and safety risks associated with the facility. Safety and emergency response plans are in place.

The operations positively impact the local community by providing employment opportunities and contributing to overall well-being.

Stakeholder engagement and community consultation processes have not been formally planned.

The facility's adherence to local, regional, and national environmental regulations is positive. The necessary permits and approvals have been obtained, and there is a plan for ongoing compliance monitoring.





MITIGATION MEASURES

- Conduct an energy audit to identify opportunities for improving energy efficiency.
- Develop a formal stakeholder engagement and community consultation plan to address concerns and gather feedback.
- Implement wastewater treatment solutions to manage effluents more effectively.
- Explore the adoption of renewable energy sources to reduce reliance on fossil fuels.

CONCLUSION

The fruit processing facility in Abura demonstrates a commitment to sustainable operations, with compliance to relevant environmental regulations and implementation of key mitigation measures. Continued monitoring and proactive engagement with stakeholders will be essential to maintaining the facility's positive impact on the community and the environment.

FRUIT JUICE PROCESSING FACILITY IN ANTO-ESSUEKYIR



PRELIMINARY FINDINGS

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The preliminary findings of the ESIA are summarized as follows:

A. Air/ Water / Soil Quality.

The facility has been identified to have potential emissions from its operations though minimal. The facility is expected to comply with air quality standards.

The Primary water source of the facility is the Ghana Water Company Limited (GWCL), using approximately 300 liters daily. There is a minimal impact on water quality identified.

The site has assessed minimal risks of soil contamination from operational activities.

B. Noise Pollution/ Waste Management/ Energy Consumption

The facility will generate minimal noise emissions with little to no impact on the local community.

The facility generates various types of solid waste, notable among them is fruit pomace. Wastewater is not treated on-site before discharge however, there are plans to reduce, reuse, or recycle waste.

Operations are powered by electricity with plans to increase the use of renewables. The facility however has not conducted an energy audit to identify efficiency improvements.

C. Biodiversity & Ecosystem/ Land use

The facility's operations may have a potential impact on local biodiversity. Plans are in place to preserve or restore natural habitats, with compliance measures for biodiversity protection.

The project is expected to comply with local land use regulations. The factory's operations will not impact nearby land use patterns, with considerations for sensitive areas like residential zones.

D. Health & Safety/ Social Impact/Environmental Laws & Regulations

There has been occupational health and safety risks identified in association with its operations. There are measures in place for safety and emergency response plans to ensure compliance with health and safety regulations.

The project is expected to positively impact the community by providing employment and enhancing well-being. Plans for stakeholder engagement and community consultation processes are in place to address and mitigate any negative social impacts.

The project seeks to adhere to local, regional, and national environmental regulations in Ghana. The necessary permits and approvals have been obtained, with a plan for ongoing compliance monitoring.



MITIGATION MEASURES

Based on the findings of the assessment, the following recommendations are proposed:

1. Implement regular monitoring of air, water, and soil quality to ensure compliance with environmental standards.
2. Develop a comprehensive waste management plan focusing on reduction, reuse, and recycling of materials.
3. Increase efforts to utilize renewable energy sources to further reduce the facility's carbon footprint.
4. Maintain ongoing stakeholder engagement and community consultation to address concerns and foster positive relationships.
5. Ensure continuous compliance with environmental laws and regulations through regular monitoring and reporting.

CONCLUSION

The environmental risk assessment of the fruit processing facility in Anto-Essuekyir has identified potential impacts and outlined measures to mitigate them. By implementing the recommended actions and maintaining compliance with environmental regulations, the facility can continue to operate sustainably while contributing to the local economy and community well-being.

FRUIT JUICE PROCESSING FACILITY IN AYENSU



PRELIMINARY FINDINGS

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The preliminary findings of the ESIA are summarized as follows:

A. Air/ Water / Soil Quality.

Potential emissions from the facility's operations were identified though minimal. There are measures in place to minimize air pollution and expectant to comply with air quality standards.

The primary source of water is the Ghana Water Company Limited (GWCL), and it uses approximately 100 litres of water per week. There is no risk of potential impact on water quality however, there are no measures in place to prevent contamination of surface and groundwater.

The risk of soil contamination from the facility's operational activities is minimal, and soil fertility and structure will be preserved.

B. Noise Pollution/ Waste Management/ Energy Consumption

Potential sources of noise emissions from the factory were identified though minimal. There are mitigation measures planned to minimize the impact on the local community.

The main types of solid waste generated from the facility's processing activities include fruit pomace. Measures are in place to reduce, reuse, or recycle waste, and the project is expected to comply with waste management regulations.

The facility uses electricity as its primary energy source. Plans are in place to explore the use of renewable energy sources to reduce the facility's carbon footprint.

C. Biodiversity & Ecosystem/ Land use

The facility's operations are not expected to have a significant impact on local flora and fauna, and natural habitats will be preserved.

The project is expected to comply with local land use regulations. There are considerations made for sensitive areas, such as residential zones to minimize the impact on nearby land use patterns.

D. Health & Safety/ Social Impact/Environmental Laws & Regulations

Occupational health and safety risks associated with the facility have been identified, and measures are in place to implement safety and emergency response plans.

The project is expected to have a positive impact on the local community in terms of employment and well-being. There are no Stakeholder engagement and community consultation processes planned however there are measures to address and mitigate any negative social impacts.

The project is expected to adhere to local, regional, and national environmental regulations of Ghana. The necessary permits and approvals have been obtained, and a plan for ongoing compliance monitoring is in place.



MITIGATION MEASURES

Based on the findings of the assessment, the following recommendations are made:

1. Conduct regular monitoring of air, water, and soil quality to ensure compliance with standards.
2. Implement a comprehensive waste management plan that prioritizes reduction, reuse, and recycling.
3. Explore opportunities to further reduce energy consumption and increase the use of renewable energy sources.
4. Maintain ongoing stakeholder engagement and community consultation processes to address concerns and foster positive relationships.
5. Ensure continuous compliance with environmental laws and regulations through regular monitoring and reporting.

CONCLUSION

The environmental risk assessment of the fruit processing facility in Ayensu has identified potential impacts and outlined measures to mitigate them. By implementing the recommended actions and maintaining compliance with environmental regulations, the facility can continue to operate sustainably while contributing to the local economy and community well-being.

