Business Plan

I. Executive Summary

- **Project overview**

This project aims to design and set up a cost-effective biogas plant to manage effluent from Ribbed Smoked Sheet (RSS) rubber factories using anaerobic digestion technology. The plant will generate biogas, primarily composed of methane, which can be used as a renewable energy source for heat and electricity generation. Additionally, the anaerobic digestion process will produce liquid organic fertilizer, rich in nutrients, which can enhance soil fertility and promote sustainable agriculture. The project will reduce environmental pollution from RSS factory effluent, generate renewable energy from biogas, promote sustainable agriculture through the use of liquid organic fertilizer, create jobs and economic opportunities in rural communities, and contribute to Nigeria's sustainable development goals.

- **Mission and vision statements**

✓ Mission Statement

"To develop and implement a sustainable and cost-effective biogas plant technology for managing RSS factory effluent, promoting renewable energy generation, and enhancing soil fertility through organic fertilizer production, while contributing to Nigeria's economic and environmental development."

✓ Vision Statement

"To become a leading provider of biogas plant technology and solutions for sustainable waste management and renewable energy generation in Nigeria, while promoting environmental sustainability and economic development."

- Objectives and scope

General Objective: To set up a cost-effective biogas plant to manage effluent from RSS rubber factories employing anaerobic digestion technology.

- **Specific Objectives:**

✓ To periodically determine the physicochemical parameters of the wastewater.

✓ To determine the composition of biogas generated from the biodigester.

✓ To explore storage and utilization of the biogas as a source of alternative energy.

✓ To determine the physicochemical parameters of the biofertilizer.

✓ To determine the fertility properties of the biofertilizer on the growth of natural rubber plants and the yield in agroforestry trials of natural rubber intercrops.

✓ To strategically engage rural communities in waste management to mitigate greenhouse gas emissions and reduce poverty through job creation.

- **Scope**

The project will involve:

- ✓ Construction of a fixed dome digester, collection and characterization of RSS effluent, and optimization of biogas production.
- ✓ Collection and analysis of liquid organic fertilizer, evaluation of its quality and fertility properties.
- ✓ Evaluation of the impact of liquid organic fertilizer on crop growth and yield.
- ✓ Engagement with rural communities to promote waste management practices and creation of jobs in biogas plant operation and maintenance.

II. Company Description

- Federal Government Parastatal
- Iyanomo, Benin City, Edo State
- Rubber Latex and Coagular Production, Ribbed Smoked Sheet Production, and other Anxilliary products such as rubber seed oil, alkyd resin e.tc

III. Products and Services

- Biogas generation and Utilisation
- Liquid organic fertilizer production and sales
- Community engagement and job creation

IV. Operations Plan

- Fixed dome anaerobic digester construction and operation
- Biogas generation and liquid organic fertilizer production
- Community engagement and job creation

V. Financial Plan

VI. Conclusion

Overall, this project is a step in the right direction towards promoting sustainable development, reducing environmental pollution, and generating renewable energy in Nigeria.