



# CYCLONOVA TEAM

**Project Name:** CYCLONOVA

**Big Idea:** Waste Management

**Essential Question:** How might Cyclonova scientifically reframe waste as a critical resource for resilient communities?

**Team Members:** (Oseremen O., Marzooq O., Oluwadamilare O., Sijibomi O., Daniel O.)

**School/Organization Name:** Corona Day Secondary School

**Location (Lekki, Lagos, Nigeria):**

# Engage:

## **What challenge does your project address?**

This project addresses poor organic waste management and reliance on non-renewable energy by using Cyclonova to convert waste into clean, renewable energy, reducing pollution while strengthening environmental sustainability and community energy resilience.

## **Why did your team select this topic or challenge?**

We chose this topic because we observed that Lagos, and Nigeria in general, is overwhelmed with waste and high cost of cooking gas (Liquefied Petroleum Gas)

## **How is it a real world problem or concern?**

Improper waste management harms the environment, spreads diseases, and wastes resources and this is rampant in many societies, especially slums. In addition, the high cost of cooking gas is a serious challenge to many homes

# Investigation:

During our investigations we discover from different sources:

Indicator	Data
Households using LPG	19–22%
Households not using LPG	78–81%
Households relying on firewood	67%
Estimated households using firewood/charcoal	>20 million
Population lacking clean cooking fuels	94%

[https://guardian.ng/news/cooking-gas-over-20m-households-stick-to-firewood-charcoal-over-affordability/?utm\\_source=chatgpt.com](https://guardian.ng/news/cooking-gas-over-20m-households-stick-to-firewood-charcoal-over-affordability/?utm_source=chatgpt.com)

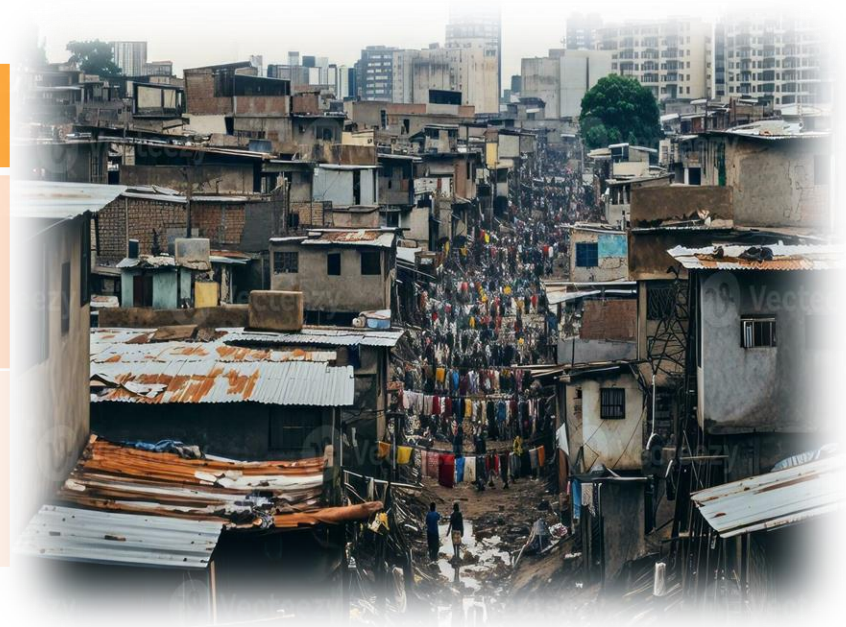
[https://blueprint.ng/over-90-nigerians-lack-access-to-clean-cooking-fuels-nbs/?utm\\_source=chatgpt.com](https://blueprint.ng/over-90-nigerians-lack-access-to-clean-cooking-fuels-nbs/?utm_source=chatgpt.com)

[https://www.thisdaylive.com/2025/08/25/clean-cooking-is-africas-most-undervalued-energy-infrastructure-priority/?utm\\_source=chatgpt.com](https://www.thisdaylive.com/2025/08/25/clean-cooking-is-africas-most-undervalued-energy-infrastructure-priority/?utm_source=chatgpt.com)

# Action:

A visit to a slum around our school community shows the following details:

Total population	30	Percentage
Number of people that can afford cooking gas	7	23.33
Number of people that can not afford cooking gas	23	76.67






## Action

We constructed Cyclonova that can collect waste like animal dung and food waste that can easily pollute the environment and convert to biogas energy alternate to cooking gas.

# OUR PLAN

Our plan is to construct as many Cyclonova as possible and give it out to homes in community living in slum that can not access clean energy and at risk of environmental diseases caused by pollution.



Ciena Sustainable Solution Award Grant will further enable us to reach out to more homes living in the slum