

## PLASTICS WASTE RECYCLING: MITIGATING CARBON EMISSION AND CREATING EMPLOYMENT

---



*A Natural Eco Capital Waste-to-Wealth Initiative  
with the Osun State Government, Nigeria*

# About Osun State

- South West Nigeria
- Population: 3.5m
- Land mass: 9,251km
- 10 Universities
- 20 other tertiary Institutions
- Ineffective Waste Management System
  - Increased waste generation per capital = 3,000mt daily
  - Inadequate waste infrastructure.
- **Plastics waste pose a menace in the State, blocks drains and causing flooding which negatively impact on lives, housing, and food security.**
- Socio-economic issue: Unemployment

# The Collaboration



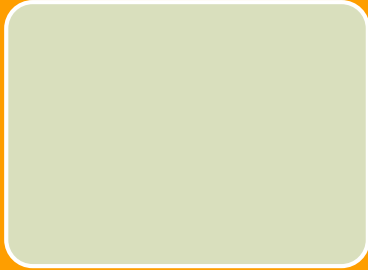
## Aim:

- Harness the potential of recyclable, especially plastic material for new product rather than from virgin materials to reduce carbon footprint and reduce natural resource depletion.
- Solve socio-economic challenge of unemployment, improved the lives of low-income earners and uniquely, the challenge of illegal migration of vulnerable groups through creation of green jobs.

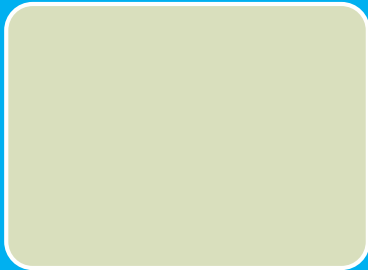
## A means to

- Contribute to meeting Nigeria's NDC low emission target and Economic Recovery and Growth Plan at the sub national level:
- Contribute to attaining SDGs 8, 11, 12 and 13
- Support the state roadmap for a resource efficiency which includes: recycling and other waste-related targets, a green action plan for SMEs, a green employment initiative, and a communication on resource efficiency opportunities, taking forward ambitions on the green economy and development framework

# Policy Targets and Incentive that Supports the Project



Improve the eco-system by making waste recycling attractive and profitable business for unemployed youths and low-income earners.



Reduce natural resource consumption and save energy through waste recycling and green infrastructure.

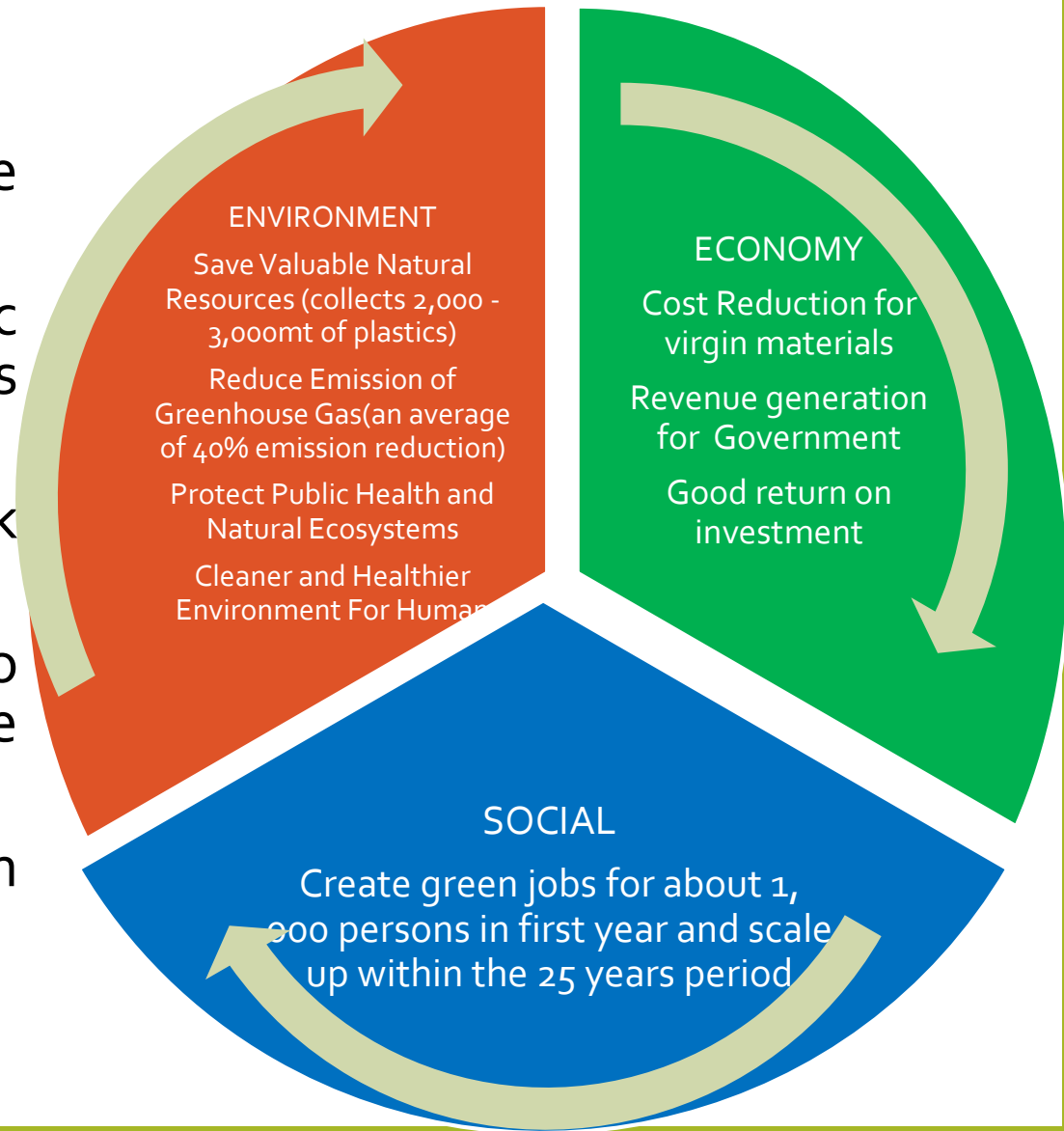


Creation of enabling environment that will attract investment.

# Deliverables

- **Targets:**

- Set up Aggregation site
- Train youths on waste collection methodologies
- Conduct public environmental awareness campaign
- Mobilize youths to pick solid waste
- Sorting of the waste into resalable and recyclable waste
- Set up recycling plant in the long run



# Our Solution and Approach

Employ Circular Economy Business Model:

- Rethink waste as a resource (education & awareness)
- Turn waste into new resources and re-introduce to production chain
- Promotion of Recycling and reduction of land-filling

## PHASE 1

- Waste Aggregation
  - Separation
  - collection

## PHASE 2

- Waste Conversion

# Locally Developed Value Addition Equipment



- Flaking Machines (Crushers)



- Wet Grinding Machine



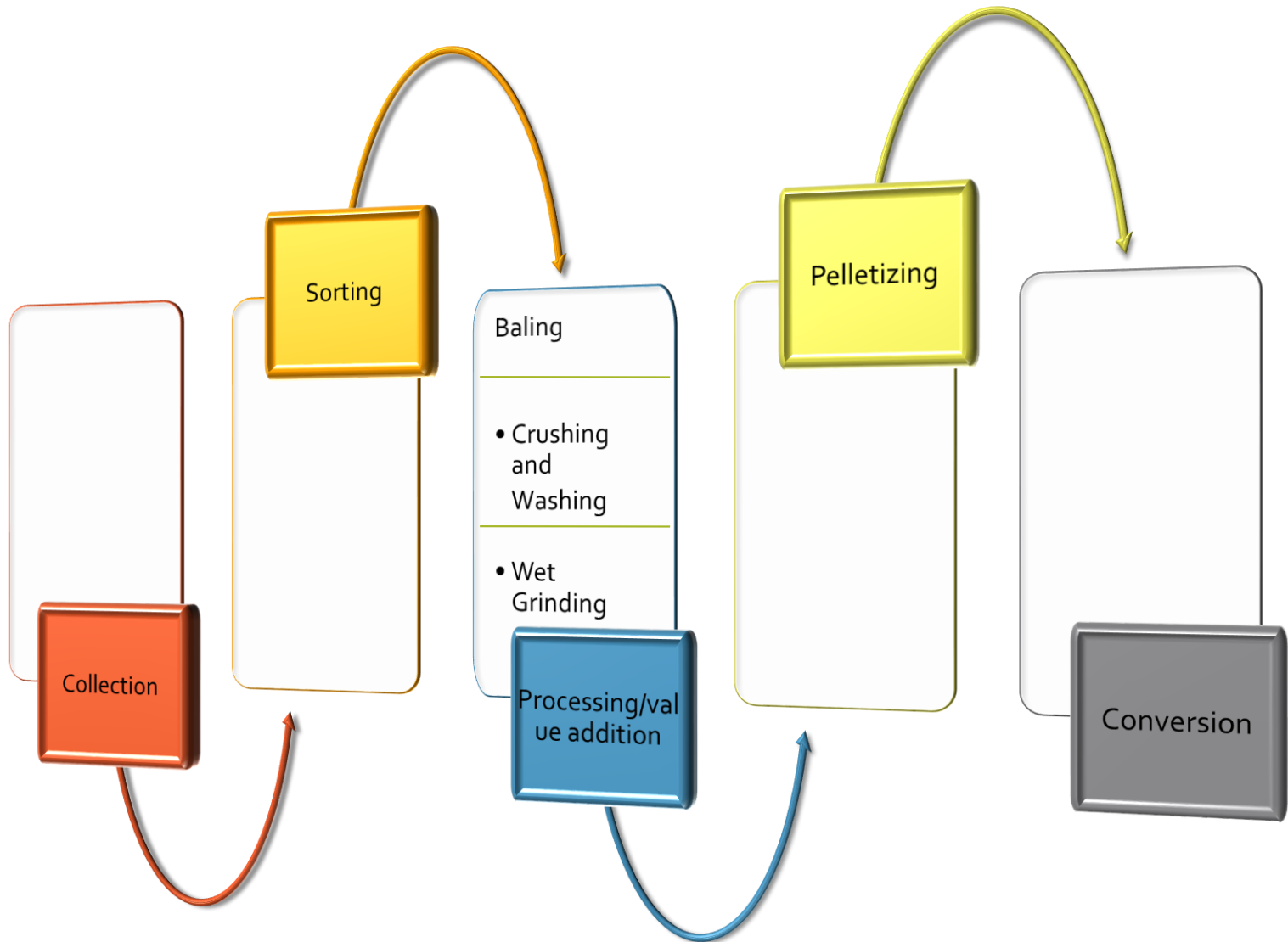
- Cutting Machine



- Pelletizer

Energy Source:  
National grid

# Process Flow for Waste Aggregation and Value Addition



# Project Status

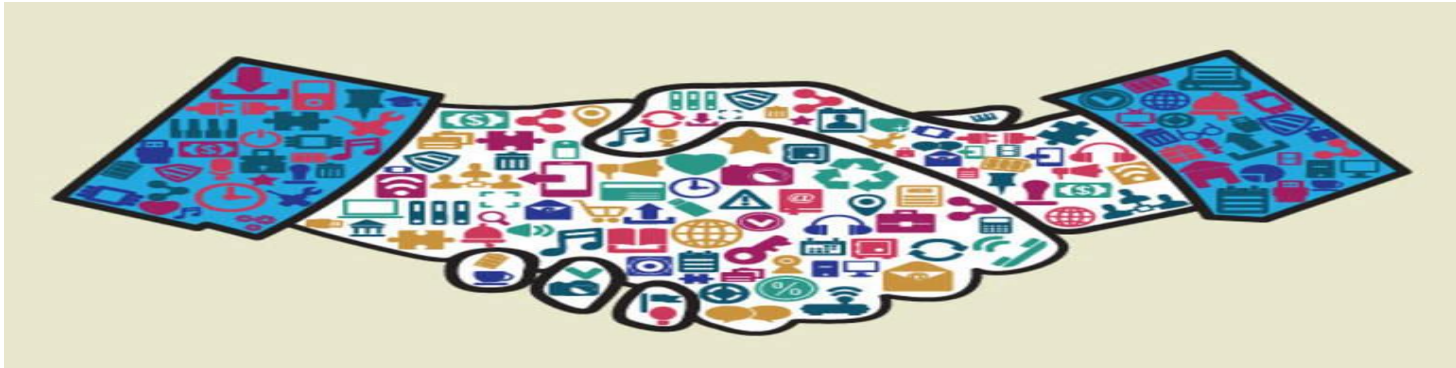
- MOU signed with the state government for initial period of 25 years and renewable
- Waste Recycling Operational Permit obtained from State Agency
- The state has allocated 5 acres of land for the plant
- The land has been cleared in preparation for civil works
- Factory plan ready for construction and development works
- Feasibility study conducted
- Consultative meeting held with all relevant government Agencies and stakeholders
- Different units of plastic recycling equipment procured (2 flaking machines, one pelletizer, one wet grinding machine, one cutting machine)

# Challenges

- Waste material separation at source
- Low awareness of income opportunity as a viable job
- Negative perception
- Government support/Legislation
- Financing/Investment

# We Seek Collaboration

- Financing
- Technical Assistance
- Waste bins



**THANK YOU!**