

## **A. PHASE 2**

Phase 2 of the Clean Ghana Project comprise the management and processing of solid waste.

Solid waste comprise

1. Domestic waste
2. Agricultural waste
3. Industrial waste,
4. Plastics and polythene waste
5. Worn out passenger and truck tyres,
6. Saw dust and other wood processing waste
7. Ferrous and non-ferrous waste
8. Glass and China waste

Ghana First Company Limited will provide separate bins for the above categories of waste. Industries will be provided with stationary compactors for industrial dry waste. Collection centres will be set up in all districts to sort out waste into categories for processing.

### **BENEFITS TO BE DERIVED FROM PHASE 2 OF THE PROJECT**

#### **1. FOOD WASTE**

The food waste will be processed into compost through compost plants installed in every district. The compost will be used for agricultural purposes.

Additionally, incinerators will be installed in every district to process waste under the waste-to-energy model. This will reduce the waste that is not processed into compost into 10% ash which will be used for land fill thereby reducing the area of land fill in Ghana.

The incineration plants will be fitted with advanced pollution control equipment comprising electrostatic precipitators, lime injectors and fabric filters to treat and clean the Flue gas from the combustion process. The heat from the combustion is used to generate steam in boilers which drive turbines to produce electricity for the community.

#### **2. OLD PASSENGER AND TRUCK TYRES**

These will be processed into rubberised asphalt, fuel, repurposed rubber and rail road wheels. Ghana first company limited has undergone extensive research into this in Malaysia and Singapore.

The rubberised asphalt will be used to pave roads

Fuel derived from the processing of rubber burns cleaner than oil and fossil fuel and is used to produce energy and reduce the consumption of fossil Fuel

Repurposed rubber is used to make shoes, bags, belts as well as decorative products, furniture and floor covering and land fill covers.

Rubber-encased rail road wheels are highly durable and can typically last up to 60 years without wearing. This will reduce the cost of maintenance in the rail sector.

### **3. PLASTICS AND POLYTHENE WASTE**

Plastics and polythene waste consist of mineral water bottles, used plastic containers, broken down plastic equipment and polythene bags. These will be processed into high resistant plastic sheets which will be moulded into highly durable tables to replace the wooden tables currently in use by table top traders. Ghana First will go into collaboration with Ghana Revenue Authority (GRA) and hand over the tables with serial numbers to GRA who will rent the tables to every trader. With the Government promulgating a law banning the use of wooden tables for retailing, huge revenue will accrue from the rental of these tables to the traders. This will rid the country of plastic waste as well as generating revenue.

### **4. SAWDUST**

Saw dust is generated as waste from manufacturing of wood products and it is disposed of by burning. The gases emanating from the burning is toxic and goes to add to the pollution of the environment and depletion of the ozone layer. Ghana First Company Limited will process the saw dust into Chipboards which will be used to manufacture furniture for both domestic consumption and for export thereby generating revenue as well as reducing the import of furniture made of chipboards

### **5. AGRICULTURAL WASTE**

Agricultural waste comprise food crops waste generated in the numerous markets in our communities, farm produce that is left to rot on the farms, post-harvest plants and redundant palm trees that are disposed of through burning and saw dust generated by the wood processing industries. These will be used as feedstock for multiple ethanol plants to be built in the Districts to produce Bio-ethanol.

Bio-ethanol is used

- a. To power motor vehicles and tractors
- b. Power gas turbine electrical generator to produce green electricity
- c. Sold on both local and international market to generate revenue

Our research has shown that a twin waste processing plant will handle 190,000 tonnes of agricultural waste a year (500 tons per day) in the district. This will generate 13 MW per hour of green electricity. 10 MW per hour will

provide green electricity to 19,000 2-bedroom houses. The remaining 3 MW per hour will be ploughed back to power the ethanol processing plant. This recycling process does not produce any toxins and does not release emissions into the atmosphere thereby protecting the ozone layer.

## **6. GENERATION OF EMPLOYMENT**

All the different facets of phase 2 of the Clean Ghana Project will generate employment in the country. Human resource is needed in all the recycling plants that will be installed in every district of the country

## **CONCLUSION**

The Clean Ghana Project is a laudable one that will impact positively on the general wellbeing of the people of Ghana