



**Metro Waste** is on a mission to help our farmers by maximizing the value of waste, while minimizing environmental impact

“A Nation that destroys its soils destroys itself.”

- FDR







# Whole of Nation Approach on Waste Management and Regenerative Agriculture





# What?



- RA 9003 was established as the foundation for our country to attain zero waste.
- 20 years after its enactment, DENR, NSWMC and 1,645 LGUs are at an awkward predicament on how to address the root of the problem of solid waste management, the lack of resources to acquire a proper and complete solid waste management system.



# So What?



- RA 9003 penalizes the local government units for its failure to establish and implement its solid waste management plan yet does not offer a solution on how to implement it
- Waste generated from the improper disposal of solid waste has contributed to serious health and environmental hazards such as water borne diseases and potable water contamination





# Now What?



## Zero Waste Management for Regenerative Agriculture

- A **Public-Private-Partnership** Project covering:
- Solid Waste Collection System
  - Construction of a proper disposal facility
  - Development of Waste Reduction Facilities
  - Development of Waste-to-Resource Solutions
  - Social Development & Public Education Programs





# Waste Management Coverage



## Waste Collection



## Centralized Waste Sorting Facility



## Stage 1 Sorting Facility and transfer station per LGU



## Organic Fraction



## Large Scale Composting Facility



## Refuse Derived Fuel



## Secondary Fuel CHP



## Residuals



## Landfill





# Phase 1 – Waste Collection

Construction Waste

Non-Hazardous Industrial Waste

Condominium Waste

Subdivision Waste

Household Waste



Hooklift Trucks\*



Waste Compactor Trucks



Refuse Collection Trucks



Walking Floor Trailers\*



Vactor Trucks

Hazardous Waste

Restaurant & Market Waste

Agricultural Waste

Livestock Waste

Septage Waste Water

\* Units have dedicated containers for each type of waste stream





# Phase 1 – Disposal Facility



## Landfill Development



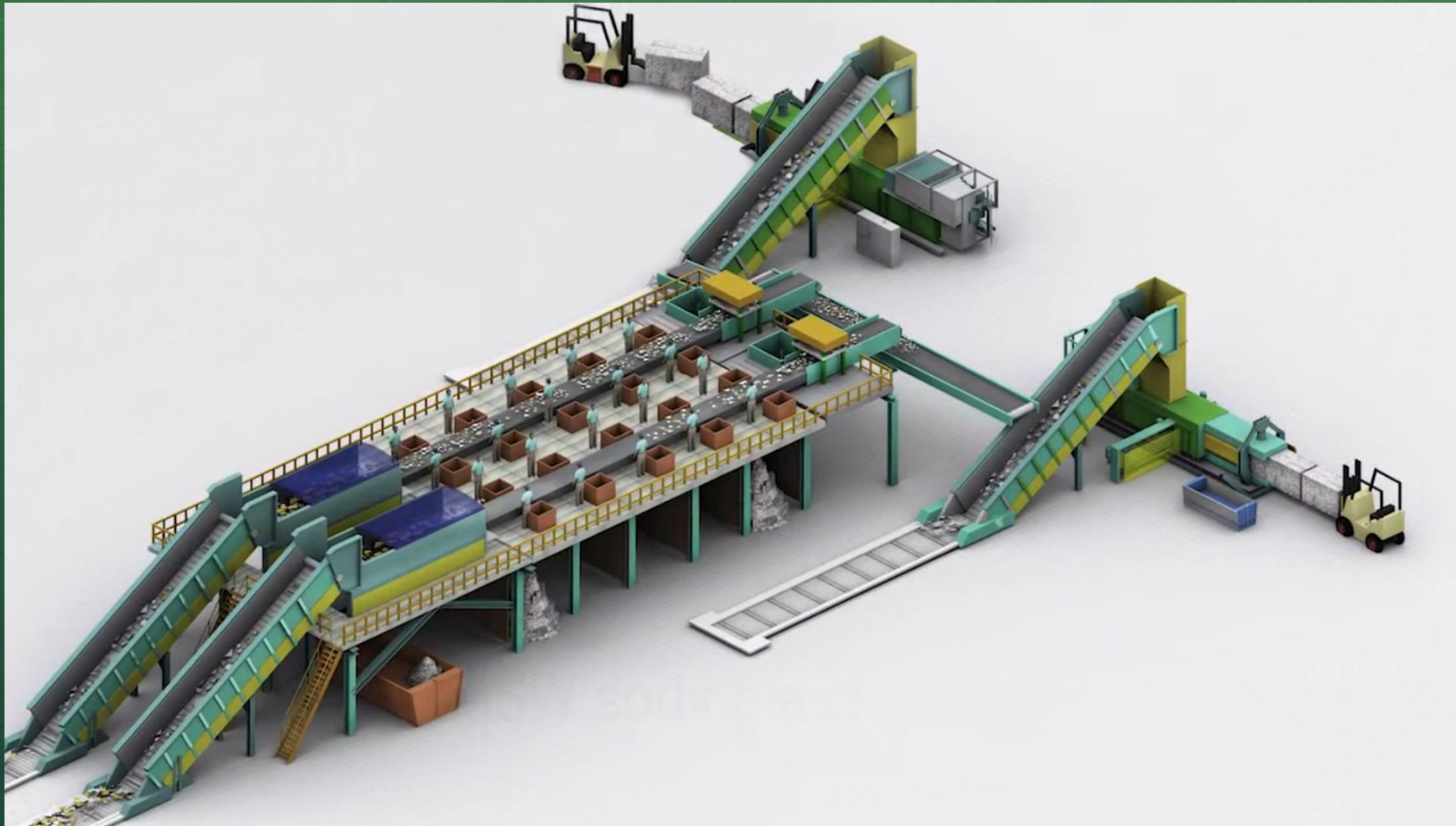
Reed Bed Waste  
Water Treatment

## Dumpsite Recovery and Reduction





# Phase 2a – Waste Reduction & Livelihood



## Manual Waste Sorting Facility

- Manual Positive Sorting as livelihood program in lieu of scavenging
- A portion of the revenue from the waste recovered from the facility shall be allocated for the education of the worker's children
- Positioned at the transfer station of each municipality or city
- Separation of majority of the Organic waste through the use of bio degradable bags





# Phase 2b – Waste Reduction & Conversion



\* European Designed and Developed

\*\* Multi-Awarded ASEAN Developer





# Phase 2b - Regenerative Agriculture



Organic Food



Biodegradable Bag  
For Food Waste



Organic Fertilizer



Organic Farming





# Phase 3 – Waste Elimination

- Refuse Derived Fuels
- Medical Waste
- BOC Condemned Shipments
- Confiscated Illegal Items



- Heat for Cold Storage/Drying
- Renewable Energy
- Flyash for Cement Factories
- Fill Material for Reclamation Projects

Combined Heat and Power Secondary Fuel Facility  
*(For future development due to high cost of technology)*





# Our Contribution

- Renewable resource generation for the Country
  - Organic Fertilizers
  - Refuse Derived Fuel
- Long Term solid waste management solution for the Country
- Provide a solution for 400 million tons of waste generated by the Country
- 9,000,000 tons of CO<sub>2e</sub> reduction per year for the duration of the project
- Reduction of Solid Waste Volume disposed in landfills by at least 75%





# Whole of Nation Approach



- Support sustainable development through:
  - The improvement of the agricultural sector through the introduction of high value products (organic products)
  - Provide employment and education for the citizens
  - Minimize cost of agricultural production
- Full compliance to RA 9003
- Support Nation's waste reduction initiative
- Triple Bottomline Approach in the Project Development



# Thank You!

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