



JEKORA VENTURES

Waste Management Professionals

Food Waste to Compost: A Sustainable Approach for Food Waste Management and Food Security

African Forum of the Milan Pact - Ouagadougou

Ouagadougou 18th February 2021



THE COMPANY- JEKORA VENTURES LIMITED



Waste Segregation Forms at Source



Organic / Food Waste Only



Plastic Waste Only



Paper Waste Only



FOOD WASTE IN GLOBAL AND LOCAL CONTEXT

- ❑ 1.3 billion tonnes of food is wasted globally each year.
- ❑ Ghana's capital city, Accra, is the largest population center and the country's economic hub.
- ❑ Ghana is a signatory to the Paris Agreement and is committed to unconditionally reducing GHG emission by 15% by 2030
- ❑ In Accra's Climate Action Plan (CAP), one of the priority climate actions is to divert organic waste from landfills
- ❑ The active participation of the private sector as a major stakeholder in achieving the objectives of the Accra CAP cannot be understated.

Food waste refers to the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food service providers and consumers (SOFA, 2019)



FORTIFER

- ❑ To commercialize the Fortifier technology for agriculture in a manner that improves the sustainability of the sanitation value chain by generating a positive revenue stream, which measurably improves cities' food waste and fecal sludge management
- ❑ Plant is designed to treat 700tonnes of source separated food waste, 12,500m³ of FS and produce 500tonnes of compost per annum
- ❑ Proven and replicable business and technology solution- PPP between JVL and TMA
- ❑ The fortifer product has been approved for farm use by the MoFA.
- ❑ Funded and facilitated by :Bill & Melinda Gates Foundation (BMGF) and IWMI

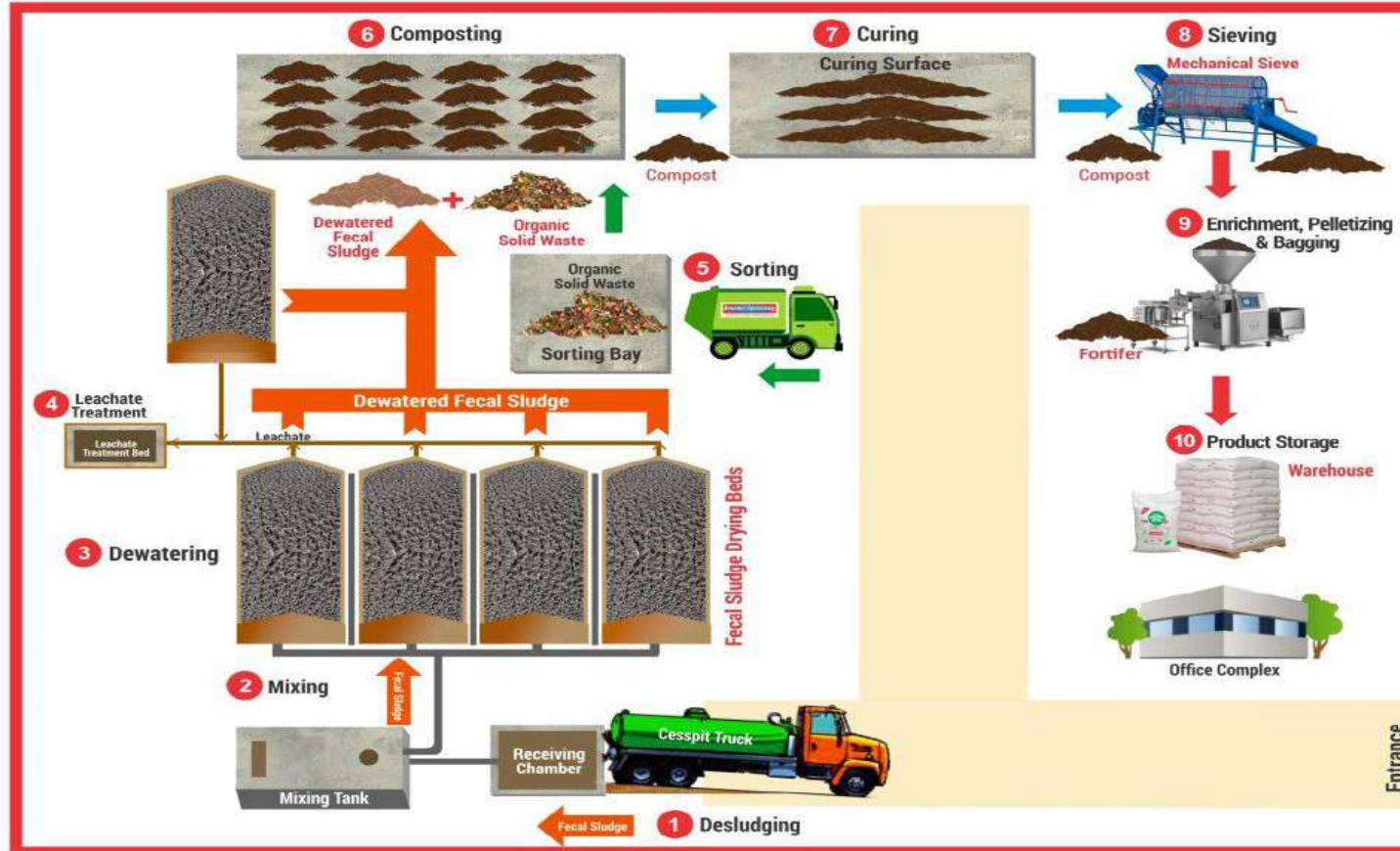


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How Our FACILITY WORKS

- 1 Desludging**
Cesspit (vacuum) trucks dislodge their fecal sludge (human waste) into a receiving chamber where it passes through three grids for removal of coarse elements.
- 2 Mixing**
Filtered sludge is pumped into a mixing chamber. This can mix up to 9 trucks' volume of waste at once.
- 3 Dewatering**
Fecal sludge is channeled from the mixing tank onto a drying bed. Sand drying beds are the oldest and most common type of drying bed used. They include filters using sand/gravel as media on which batch loads of sludge are dewatered. Two physical mechanisms are involved in the drying process: filtration (especially over the first one to three days) involves removing 50 to 85% of the water, and evaporation (the remaining days) for removing the remaining moisture.

The drying process takes 7-21 days (average 10 days), depending on weather conditions.
- 4 Leachate treatment**
The leachate originating from the drying bed is sent to a sand filter for polishing before being released into the environment.



- 5 Sorting**
Organic solid (food) waste separated at source is delivered onto the sorting bay. It is usually 80% sorted. Here further manual sorting occurs and the waste is spread on the platform and dried for 2 – 3 days to remove excess moisture.
- 6 Composting**
Food waste is mixed with the dewatered fecal sludge in a mass ratio of 3:1. The mixture is heaped for composting afterwards. This process takes 2 – 3 months.
- 7 Curing**
After the composting process has stabilized, it is cured where maturation is completed, the temperature reduces and all biological activity is ceased.
- 8 Sieving**
The ready compost is sieved to remove larger particles and make it suitable for farm application.
- 9 Enrichment, Pelletization & Bagging**
This process is mostly mechanized. Compost can be enriched (for greater nutrients), pelletized (for compact volume) and bagged for appropriate transport and sale.
- 10 Product Storage**
The finished product is kept in sacks of 10kg, 30 kg and 50 kg for purchase and delivery.

PARTNERS:



DONORS:



FORTIFER



PUBLIC

MENT

FORTIFER- Emerging Lessons

- ❑ The Fortifer PPP business model has proven to be effective technically and financially worthy of replication in other districts of Ghana.
- ❑ Development of PPP with a business model built around a common objective of improving environmental sanitation involving the public sector, the private sector and research.
- ❑ Wide use of the model will clearly improve the treatment of both liquid and food waste in the various MMDA's. The Fortifer plant treats 700 metric tonnes of source sorted organic waste and 12,500 m³ of faecal sludge.

Limitation to adoptability

- ❑ Context matters for technology and business model choice
- ❑ Public and private sector support required



FORTIFER- Limitation to Adoptability

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- **Way Forward**

Incentivize the private and public sector to collaborate on composting efforts



AWARDS



WASTE & RECYCLING MANUFACTURER



MOST OUTSTANDING RECYCLING COMPANY

AMA releases Performance Report for Waste Management Companies

18. Mar. 2019



He disclosed that, while none of the service providers were able to secure marks above 85% for excellent performance, Jekora Ventures, performed satisfactorily scoring 80.6%.

He noted that remaining service providers in seven service zones performed below average with the following scores;

ZOOMLION DOMESTIC/ AYAWASO CENTRAL - (61.8%)

ZOOMLION DOMESTIC/ ABLEKUMA CENTRAL - (61.5%)

METROPOLITAN & ALLIED /ABLEKUMA CENTRAL - (43.0%)

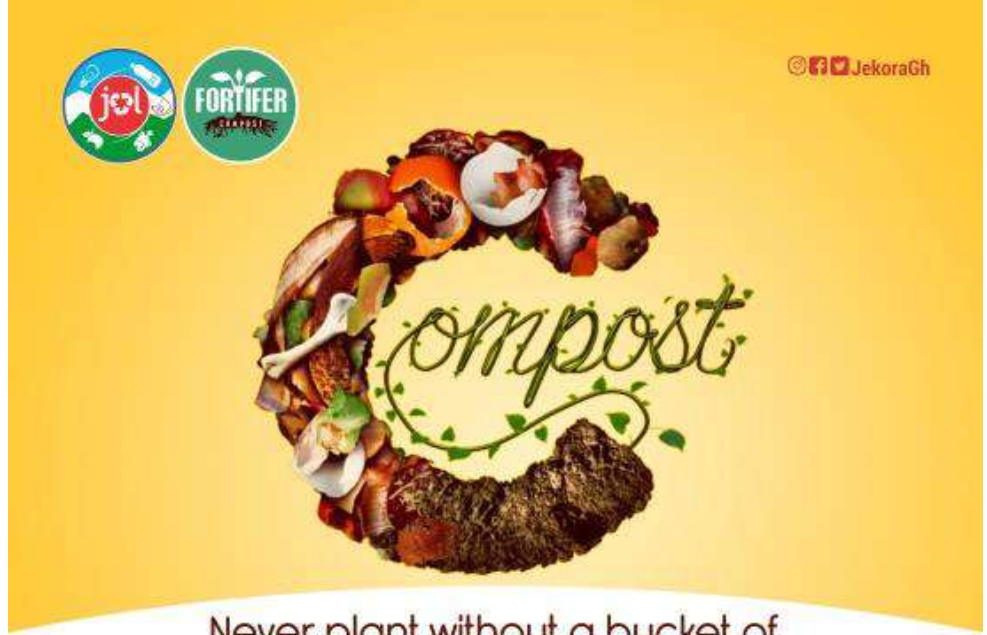
STANLEY OWJUSU & CO. LTD / OKAIKOI SOUTH - (40.7%)

METROPOLITAN & ALLIED WASTE ABLEKUMA SOUTH - (36.0%)

TROPICAL WASTE / ASHIEDU KETEKE - (28.3%)

MESKORLD LIMITED / ASHIEDU KETEKE - (22.1%)

<https://ama.gov.gh/news-details.php?n=Nzg1NjUzbjQyb3A3NTZvbzM5NW9xNDhuNDA4OG4wNjVvOXA1NHNwcg==>



Never plant without a bucket of Fortifer Compost at your side.



MEMBER OF ENVIRONMENTAL SERVICE PROVIDERS ASSOCIATION		Accra Metropolitan Assembly	International Water Management Institute
Adentan Municipal Assembly	Tema Metropolitan Assembly	safisana	GA MASHIE DEVELOPMENT AGENCY
Weija/Gbawe Municipal Assembly	LET'S CLEAN GHANA Play Your Part	ONE GHANA MOVEMENT	CLEAN GHANA ARMY

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A PLACE OF PROACTIVE URBAN SANITATION & WASTE MANAGEMENT

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