

Oman Strategy of Bio-waste Management and Implementation of Biogas Plants

World Biogas eFestival
Business Development Department
Oman Environmental Services Holding Company (be'ah)
18th of May 2020



***“To Conserve the Environment of
our Beautiful Oman for our
Future Generations”***

be'ah: Strategic Goals and Objectives

- 1 Damage Control
- 2 Restructure WM Services
- 3 Develop WM Sector
- 4 Support Oman's Economy

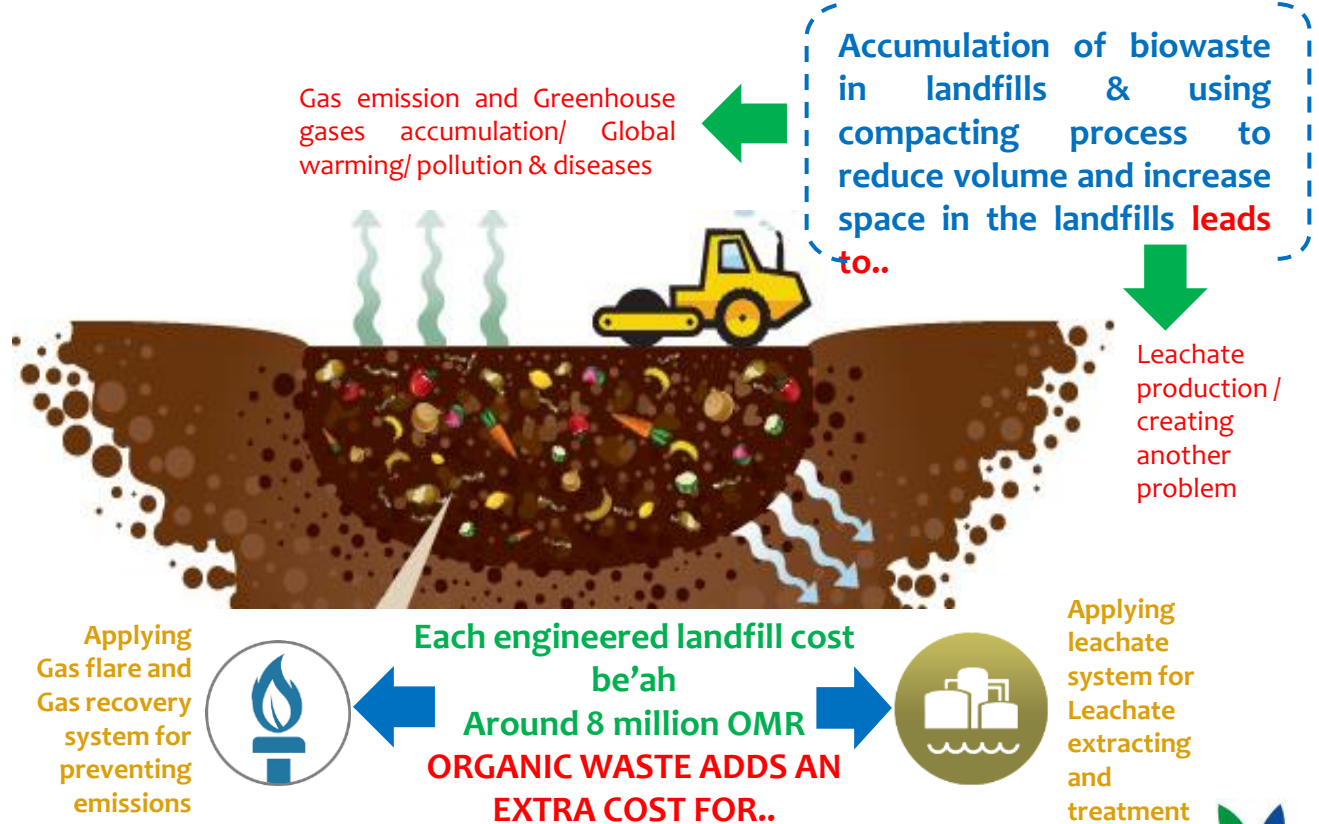
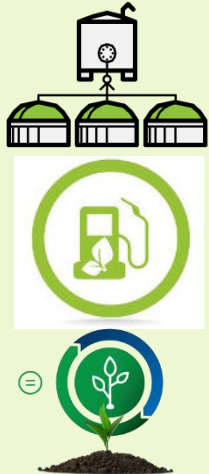
*be'ah aims to construct and implement a long term municipal solid waste diversion strategy to achieve a diversion rate of **60% by 2025 and 80% by 2030.***

Biowaste assessment and a case study from Barka Landfill



What is the challenge ?!

WHY DO NOT START
DIVERTING
BIOWASTE FROM
THE LANDFILLS
AND
ADDING VALUE
INSTEAD OF ADDING
COST !!!

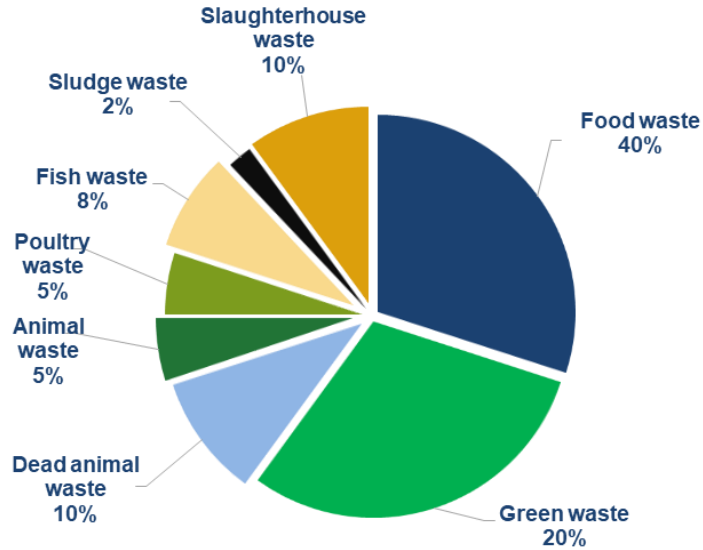


Case study at Barka landfill (2016-2017)

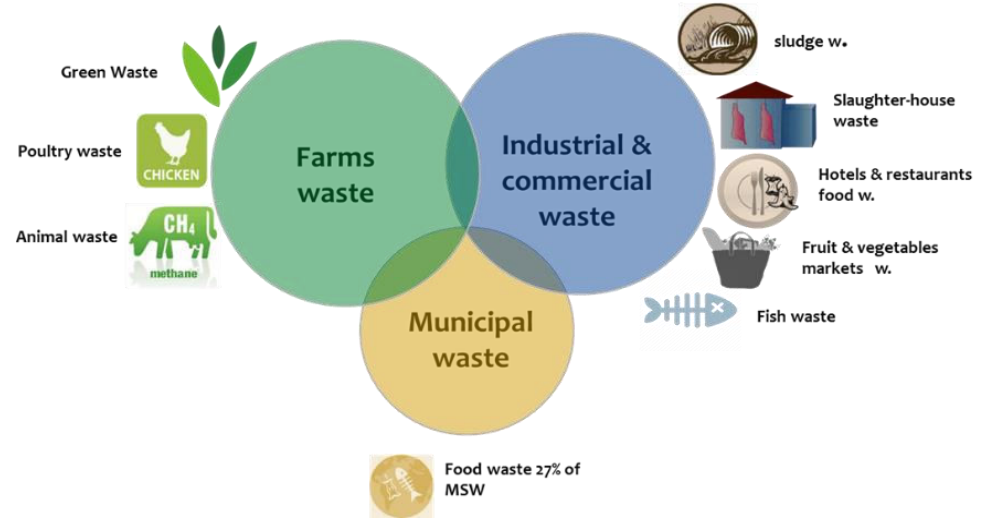
What is the nature of the organic waste received at the landfill ?



Biowaste categories received at Barka landfill



case study and field survey, 2016/ updated 2017

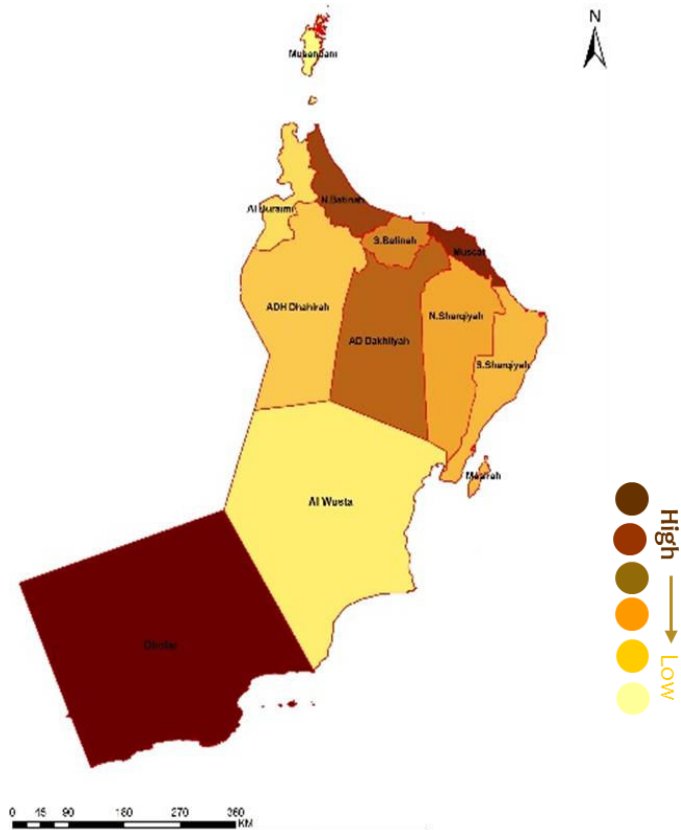


Around **2000 tons/day** of MSW received at Barka landfill

Including **600 tons/day** received are Bio-waste

(30% of total waste)

Organic waste distribution overview



be'ah case study for waste generation in Oman, 2017**

Food waste
** **540**
Thousands ton
in 2016



around **54** Million OMR
In 2016

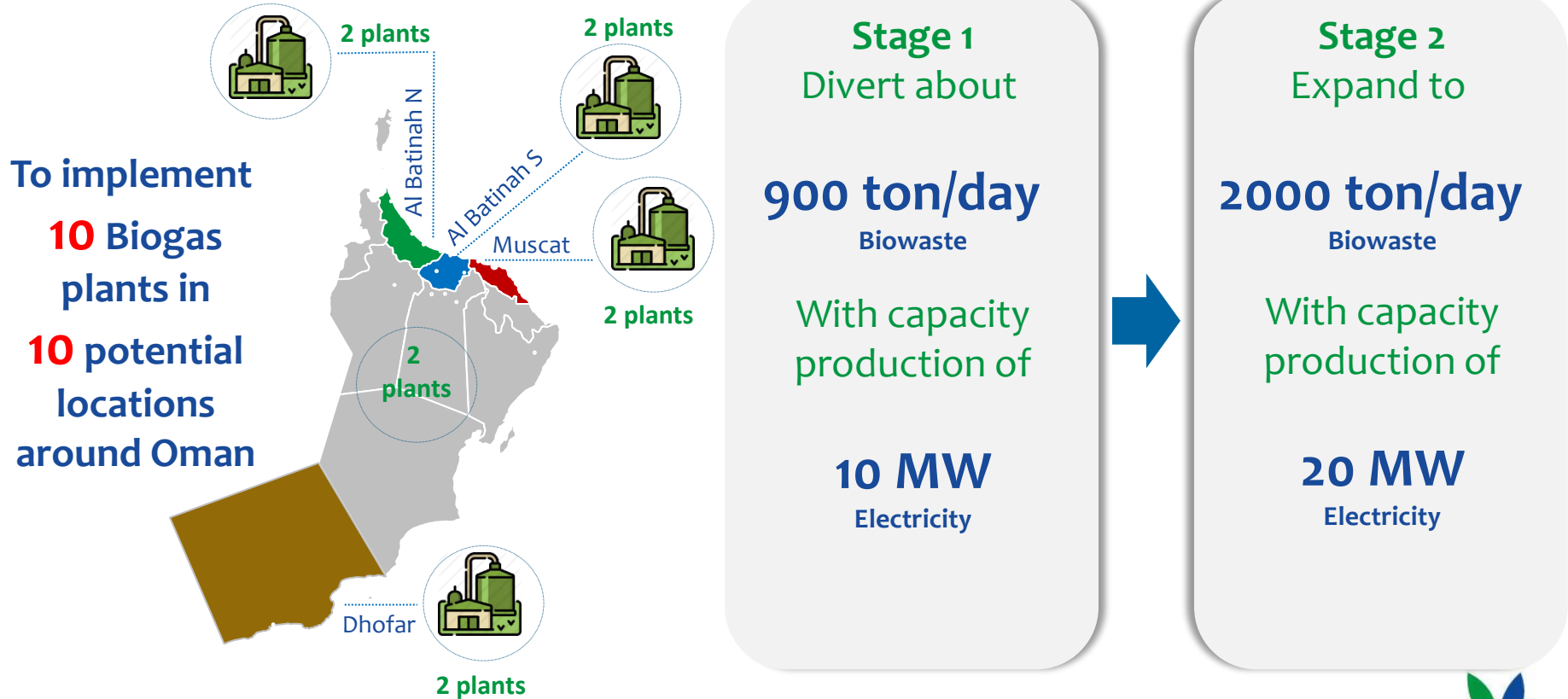
estimated
~ **\$140** Million
In 2016

be'ah case study for waste generation in Oman, 2013**

Strategy for diverting bio-waste and Implementation Biogas Plants



be'ah's strategy for diverting bio-waste: Biogas Plants

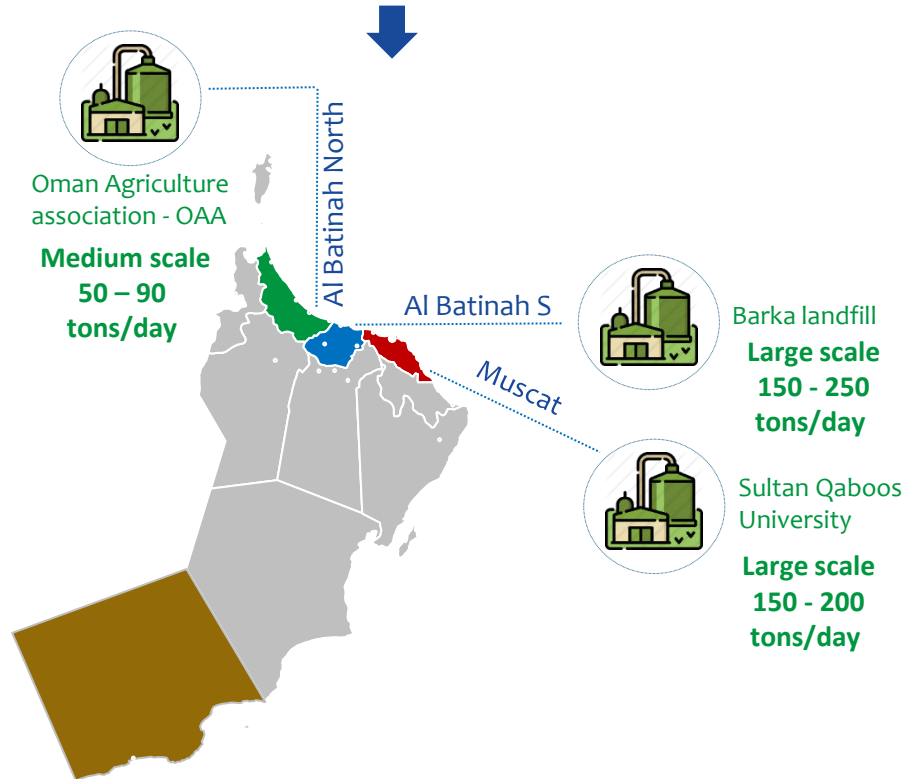


Phase 1: Centralized or Decentralized Biogas plants

Decentralized Biogas Plants

OR

Centralized Biogas Plant



Barka landfill
Large scale
300 - 500 tons/day
5 - 7 MWeI

Project status and way forward

Project Status

- Bio-waste assessment of available feedstock was conducted and finalized in 2018.
- Feasibility study was completed in 2019.
- Feasibility results were discussed and presented to project stakeholders (2019-2020)

Way forward

- Confirmation of offtake of process outputs and discussion with key authorities to secure feedstock from generators at sources (2020)
- Float a tender for the and construction, development and operations of biogas plants - 2021
- Engage key stakeholders from various sectors that contribute to the success of the project (i.e. key generators and other related authorities for output utilization such as Power and digestate off-take by the agriculture sector.

“
*To **Conserve** the **Environment** of our **Beautiful***
***Oman** for our **Future Generations**”*
”

Thank you

World Biogas eFestival
Business Development Department
Oman Environmental Services Holding Company (be'ah)
18th of May 2020