

# FEW: Biogas



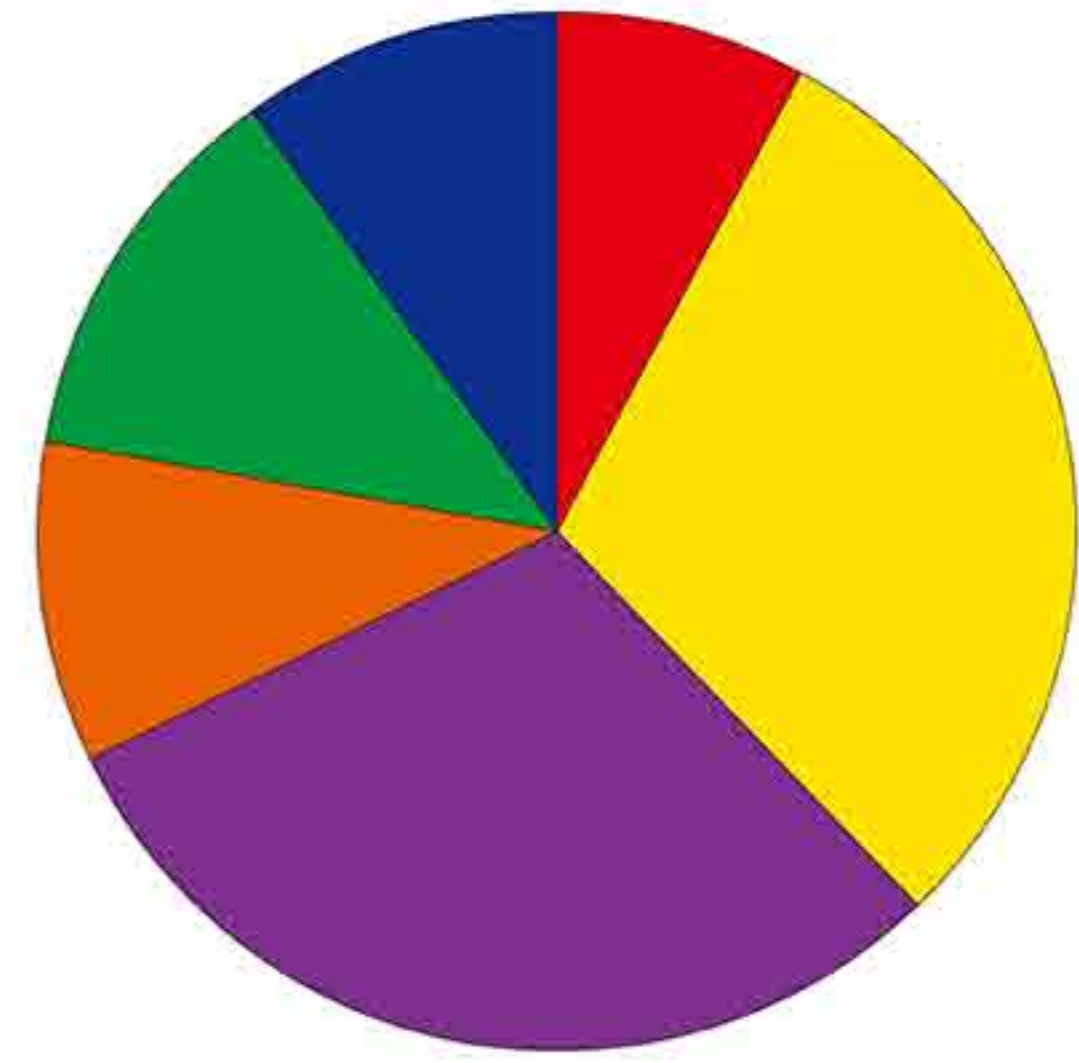
Biogas is produced by either anaerobic bacteria through anaerobic digestion or the fermentation of biodegradable materials such as manure, sewage, municipal waste, et cetera.

The main products of the process is methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>).

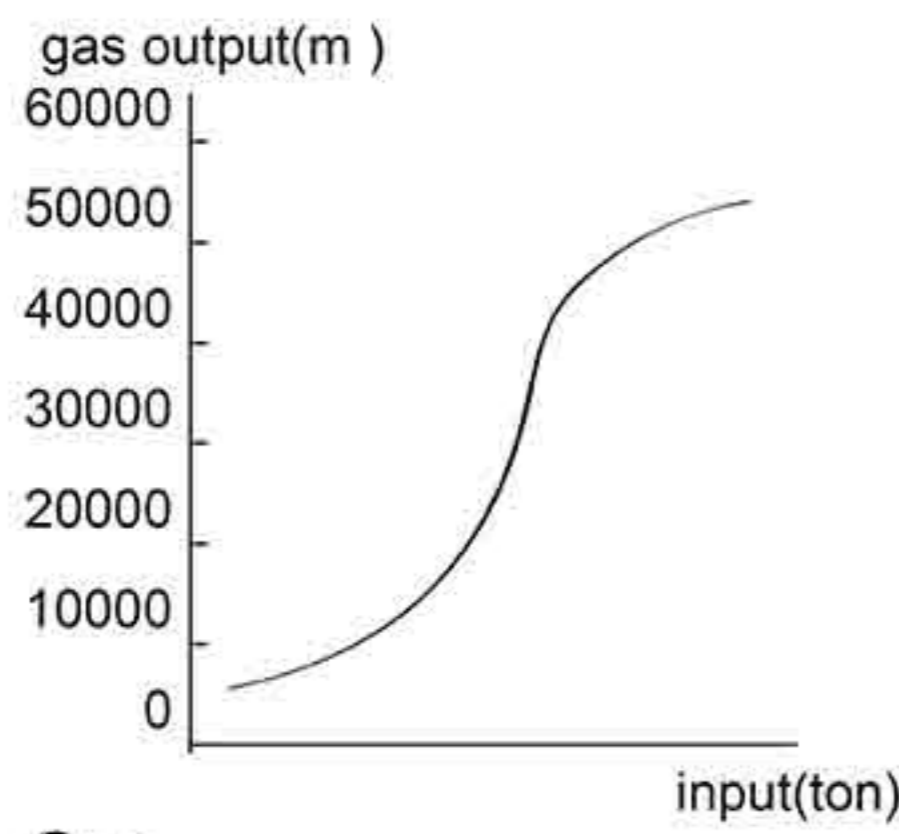
Small amounts of hydrogen sulphide (H<sub>2</sub>S), moisture, and siloxanes are also produced.

### Necessary Conditions

1. Proper biogas bacteria
2. Strict anaerobic environment
3. Sufficient raw materials
4. Proper temperature (25 - 40 °C)
5. Proper concentration (6 - 12 %)
6. Proper pH (6.8 - 7.4)
7. Regular Stirring

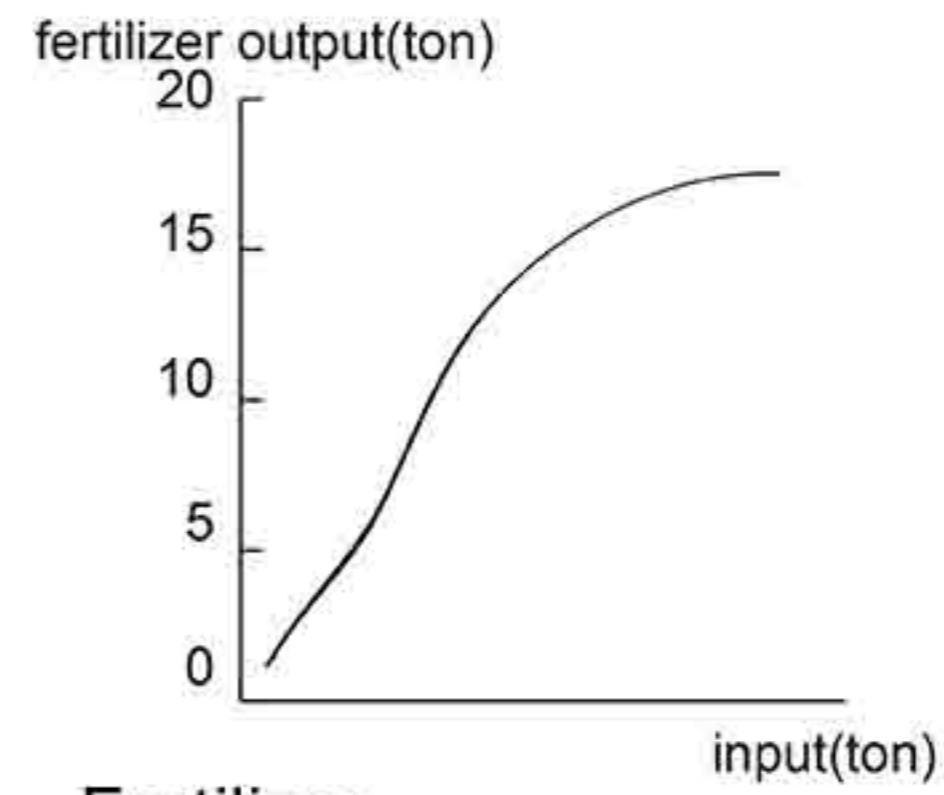


- winery waste
- dairy factory
- food waste
- animal slurry
- harvest residues
- human sewage



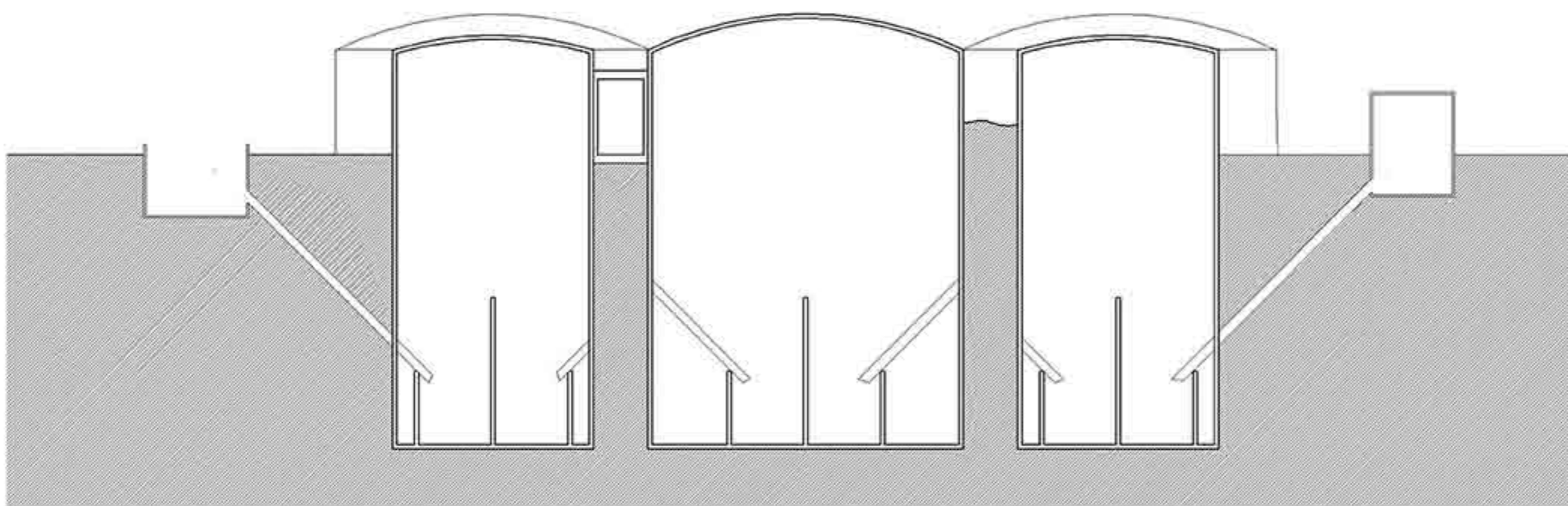
### Gas

1. Self-sufficient heating & cooking
2. Sell to the neighbourhood
3. Sell to the city gas company
4. Generating electricity



### Fertilizer

1. For the greenhouse
2. Sell to the neighbourhood



Input tank	50 m
Digester	461 m
Output tank	20 m
Control room	20 m
Total area	551 m