

Care and Maintenance of Biogas Plant

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Biogas is a non-conventional source of energy, the clean and cheap fuel derived from it is mainly used for cooking. If its construction and further maintenance is done properly from time to time then fuel from it can be used conveniently.

Biogas plants are of two types

- Floating dome type
- Fixed dome type

Maintenance and repair of biogas plant

- A fixed amount of slurry should be added to the plant every day.
- Make sure that sand does not enter the plant while adding slurry.
- Check and repair gas and water leaks.
- If the digested slurry doesn't flow from the outlet, insert bamboo to clear the pipe.
- Stir the contents of the digester.
- Clean the displacement tank - to avoid formation of solids.
- Open the manhole and check cover for scum formations in the digester and remove if visible.
- While cleaning the gas stove, the main cock should be turned off. The nozzle and pipe should be cleaned with wire



Faults and Repairs in Biogas Plant

Faults	Repair
Absence of gas formation.	Add some starter to initiate gas formation.
Gas cracking of separation wall in digester.	Check for improper welding or construction of the gas Construct wall again and add the slurry properly.
Non production of gas after first filling of plant, production of gas after first filling of plant	Wait for 3-4 weeks.
Formation of scum at the upper layer of the slurry.	Stir the slurry well.
Less gas production.	As the temperature of the slurry is low in winter, hot water can be used to prepare the slurry or hot water can be used from a solar water heater.
No flow of manure or slurry from inlet and outlet pipe.	Insert bamboo and remove the stucked slurry to make it free for passage of digested slurry.

Why does a biogas plant fail?

- If the construction is not done in the prescribed dimensions.
- Use of cheap and poor quality construction materials.
- If the foundation fill is not sufficient.
- If the concrete mix is not properly proportioned.
- If the builder mason is not skilled and professional enough

How to get more gas from the plant?

- Bring the slurry pH between 6.5-7.5 by adding urea, calcium or sodium bicarbonate.
- Try to stick to the desired quantity and quality of input slurry. Choose a place where the plant will be able to receive sunlight for 12 hours.
- The depth of the plant should be as low as possible.
- As the temperature of the slurry is low in winter, hot water can be used to prepare the slurry or hot water can be used from a solar water heater.