

# Create savings on LPG & manage wet waste through Biogas



**Reduce LPG needs  
up to 50%**



**The Problem faced today:**

The landfills of Bangalore are shutting down as the communities living near them, agitate against continuous dumping of waste. Source segregation is therefore necessary and is to become a bylaw. By segregation, what we find is that trash is no longer waste but a valuable resource. Plastics, paper and metal generate an income of minimum Rs.100/month by recycling. What about wet waste from our kitchen and left over meals that within hours starts to go foul and becomes smelly?

**A Solution:**

Portable Biogas digesters are provided as a solution that not only helps manage wet waste but also displace a family's LPG needs by half. An average Indian family of 4 consumes one LPG cylinder a month, thereby 12 a year. According to the new government provisions made for LPG, only 6 cylinders will be available under subsidized rate of Rs.400 and the rest 6 will have to be purchased at a commercial rate of Rs.770-800. If Biogas is installed in homes, the family only has to spend Rs.2400 on the first 6 cylinders of LPG, the remaining 6 is taken care by biogas, resulting in an average savings of Rs.4800 a year. With about 1.2 sqm space, they can be placed in balconies, terraces, backyards, basements and gardens. Larger units are available for apartment complexes, hotels, restaurants, choultrys and office buildings with an option of converting gas into electricity. The lifespan of a digester is about 25 years.

**How does it work?**

A biogas unit comes with a digester tank in which everyday kitchen waste is digested by anaerobic bacteria that emit about 70% flammable methane and other gases. This gas is stored within the upper drum that floats in water and moves up or down, according to the quantity of gas. The gas drum is prevented from tilting by a guiding frame. If excess gas is produced, it is automatically released due to buoyancy, ensuring safety. Gas passes through a gas pipe connected to a Biogas stove, similar to LPG stoves, and is ready for cooking. The input for the digester is one part kitchen waste and one part waste water that can be obtained from washing rice and dhals. Once the entire mass gets digested, it is converted into a rich liquid manure which comes out of the outlet pipe and collected in a bucket. This can be used for gardens, potted plants or poured into the drain.

<b>Myth</b>	<b>Fact</b>
It will stink up my house!	Ordour free set up and gas produced is combusted while burning
Biogas plants are unhygienic	Biogas is one of the safest ways to dispose organic waste. It does not attract any flies, insects and pathogens thereby reducing spread of diseases
It takes a very long time to be produced and requires regular cow dung input	Only once cow dung is to be used to create the starter culture and within 10 days, the unit will produced 1.5hrs of cooking gas everyday
It does not cook food like LPG	Customers say they feel no difference and extra large holes in the stove burner ensures a bigger flame
Large quantity of waste is required to make Biogas	As little as 1.5kgs of waste that is normally produced everyday in a kitchen, is sufficient to provide gas for 1.5-2 hrs of cooking a day
It is dangerous to keep at home	Unlike LPG cylinders, the pressure in the digester is less and therefore will not burst.

Biogas kits are available at Synod Bioscience, [www.synod.in](http://www.synod.in). Contact Zeeshan: +91 9895994269