



DOMESTIC BIOGAS FOR CLEAN COOKING INDIA

A cleaner, more sustainable fuel
source for cooking in rural Indian
households

Located in the Northeast and Central Indian states of Madhya Pradesh, Uttarakhand, Bihar and Jharkhand, this project replaces fuelwood for cooking with energy generated by renewable biogas digesters installed in rural households. The distribution of biogas digesters amongst families improves community health, creates employment opportunities and eases pressures on forests – on top of reducing CO₂ emissions.



The Context

Rural Indian families traditionally cook on inefficient, wood-fired mud stoves which emit large amounts health-harming smoke. Collecting firewood is also arduous – women often travel long distances on foot each day, spending further time cooking.

The Project

This project involves installing Deenbandhu model biogas units in rural Indian households that generate sustainable biogas for cooking, replacing wood-fuel. These domestic biogas units feature a fixed underground digester chamber constructed from bricks with an additional layer of cement mortar forming the roof. Manure is fed into the plant through an inlet tank. As it ferments, methane rises to the top of the chamber and is released through a gas outlet pipe – fuel for cooking and heating water. By-product slurry passes into the outlet tank, where it can be collected and used as organic fertiliser.

The Benefits

This project creates a range of community benefits that ameliorate daily life – particularly for women who no longer have the arduous task of firewood collection. This also eases pressures on nearby forests. Household health is improved too, as the clean-burning biogas does not create indoor smoke and reduces the risk of burns. By providing means to dispose of livestock waste, the biogas units also improve rural sanitation, and the by-product slurry improves local soil quality in fields, replacing purchased chemical fertiliser.

The Deenbandhu domestic biogas units come in a range of sizes to suit different family sizes and numbers of livestock.



Improved Household Health

as clean-burning biogas will reduce the incidence of smoke-related illness



20,000 biogas units

will be installed in Indian households, providing an affordable and clean fuel source for cooking



58,456 tCO₂e

mitigated on average each year, as families cook with clean biogas instead of burning woody biomass from nearby forests

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Official name: Domestic Biogas Project for rural households in India | **Markit link:** https://mer.markit.com/br-reg/public/project.jsp?project_id=104000000014120 | **Markit ID:** 104000000014120