

India

Enlightening lives with household biogas

10,400 biodigesters for biogas promotion

Emission Reductions



40,000t
CO₂ e p.a.

Project Technology



Renewable
Energy - Biogas

Project Standard

Gold Standard[®]

India is the largest consumer of fuelwood for energy. In Uttarakhand, home to over ten million people, firewood is the primary energy source for many households. These households use an average of 5 kg of firewood daily, mainly for inefficient mud stoves and water heating. Local forests, high demand, livestock growth, and illegal exploitation, are under increasing pressure as the primary source of firewood. This has led to a deficit in firewood availability, forcing families to travel 2-5 km daily for their fuel needs. Deforestation also leads to desertification and land degradation, posing challenges to agriculture in rural communities. Dry and degraded lands result in poor crop yields and increased flood risks.

This small-scale project installs and operates around 10,400 household biodigesters in rural areas where residents live below the poverty line. The capacity of the biodigesters varies based on the household's livestock. The biodigesters are fueled by animal dung, reducing the need for fuelwood and utilizing agricultural waste. The residue from the biodigesters serves as an organic fertilizer, improving soil conditions. This fermented residue is more effective than fresh manure. Farming families feed the digester with dung, which is later converted into biogas for cooking and water heating. The biogas project reduces carbon emissions and preserves forest areas.



info



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Supported Sustainable Development Goals





Sustainable Development

Beyond removing carbon emissions, all our climate protection projects generate multiple additional benefits for people and the environment. These projects support the United Nations Sustainable Development Goals.



Biogas usage reduces household firewood use, which is crucial in preventing toxic gas pollution and respiratory illnesses, the top two causes of adult deaths and responsible for 13% of child deaths under five in India, according to the WHO.



By using waste generated by their own household, owners of the biodigesters will be using virtually free energy which is cleaner than the wood alternative.



The project also supports economic growth by providing employment opportunities for 15 locals in management and maintenance positions.



As the project reduces the need for fire-wood, it also supports forest and biodiversity conservation. Per year, it reduces some 40,000 t CO₂.



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