



IEI's regional initiative for Asia, located in Bangalore, has designed a project to demonstrate the operation of a village-based energy enterprise.

Our broad objective is *to promote rural enterprises that deliver improved household energy-based services, sustaining this delivery through integration with income-generation*. While the productive use of energy for poverty reduction (for example, lighting services) is well-known, we are focusing on energy for domestic cooking, because it does not yield financial returns and is therefore usually ignored in energy-development plans. Hence, the energy-development model that we propose involves forming a co-operative of village families to produce clean, efficient fuel from local renewable resources, enabling financial sustainability by linking revenue from a related saleable product.

In the first year, we intend demonstrating one energy-development case, where biogas cooking-fuel for all homes will be generated using cattle-dung from a co-operatively managed dairy, whose milk sales will assist in financially supporting the operation.

The proposed scheme is unique because of its *reach, financing mechanism, and innovative use of proven technologies and operational structures*. Here, *all* families get better fuel at a co-operatively-agreed fee, rather than only those who can afford the increased cost.

The project uses a proven technology (biogas generation through anaerobic digestion of cellulosic biomass) and operational structure (as co-operatives have been in existence for decades) that will facilitate training and replication elsewhere. But our adaptation of these for

energy-development purposes is new, and particularly useful in helping poor people climb the energy ladder without continuing state subsidies/lifeline support, making such models more sustainable than other improved fuel/device programmes.

The project is important to countries like India, with over 70% of people residing in rural areas, of whom about 90% use some form of biomass, most because of the higher prices of better fuels, with nearly 30% subsisting on less than Rs 3,600/capita/year. The advantages of an ***easily-available, clean, and efficient cooking fuel, from renewable sources*** are obvious -- ***for health, time-saving, environmental protection and sustainability.***

Demonstration of the feasibility of such energy-development enterprises, with suitable modification for other agro-climatic regions, will facilitate large-scale replication.

The chief sponsor of this project is the Wuppertal Institute of Climate, Environment and Energy (Germany) through its WISION Sustainable Energy Project Support programme.