



News from IEI's Asian Regional Initiative in Bangalore (India) – June 2017

Rural renewable energy hub:

Applied research -> field activities, lessons learnt

-> knowledge sharing, adaptation/replication

In keeping with our Mission (<http://iei-asia.org/aboutus.htm>), we direct our efforts towards **extending sustainable access to better energy services.**

There have been dedicated state-subsidised programmes for many years -- extending energy services to rural regions. However, there are still many un-served. We therefore want to initiate a “**knowledge hub**” or **repository of information** useful for developing sustainable and efficient rural energy service delivery. In view of environmental and climate change concerns, we are *currently focusing on locally-available renewable energy resources*. Based on our (IEI-Asia's) experience with demonstration projects, we are beginning with energy-based services fuelled by methane (CH₄) from biogas derived from farm wastes, integrated with farming activities based on conservative use of natural resources (particularly water).

At our earlier demonstration projects, we had generated biogas from cattle-dung and from vegetative and plantation (chiefly banana) waste and used the available methane for stove-fuelling (and even for electricity generation for rural home needs when grid supply was not available). Noteworthy aspects are that the conventional energy feedstock was replaced by renewable sources, that these sources are less expensive than others as they are the residues of activities that are economically-satisfactory independently, that these activities were carried out with efficient use of natural resources, and that the local people benefited (not only from the access to better energy services) but from improved livelihood from the increased farming/farm-related activities. Abstracts of some reports – for example, <http://iei-asia.org/IEI-Bangalore-CleanCooking-RuralDevelopment-Report.pdf>, <http://iei-asia.org/IEI-Bangalore-DairyWaste-SustainableElectricity-DemonstrationReport.pdf>, <http://iei-asia.org/IEI-Bangalore-CropWaste-CookingFuel-DemonstrationReport.pdf> are available at this web site.

We had used our applied research to implement these projects but gained insights along the way – precautionary measures that should be taken, solutions to problems, and the most effective operational practices. We would like to share these to facilitate adaptation and implementation by others.

There is much valuable experience with other groups, some of whom we have already partnered with, and others in diverse parts of India and other similar developing countries, whom we are now approaching.

The collation will contain technical and financial background details and implementation steps based on experiences in the field. The intention is also to develop a supportive set of training/information modules, starting from prerequisites that should be verified in advance and descriptions of cases already established, and then going on to what would be required along the way – installation/construction activities and appropriate operational practices.