

# Evaluation of National Biogas and Manure Management Programme: Family Type Biogas Plants Programme

## Executive summary

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The National Biogas and Manure Management Programme (NBMMP) is a centrally sponsored scheme implemented by the Ministry of New and Renewable Energy (MNRE), Government of India through state governments since the year 1981. It mainly caters to the setting up of family type biogas plants across the country. The main aim of the programme is to provide lifeline energy needs for household cooking as envisaged in the Integrated Energy Policy. It provides for central subsidy and state subsidies in fixed amounts; turnkey job fees linked with five years' free maintenance warranty; financial support for repair of old non-functional plants; training of users, masons, and entrepreneurs; and publicity and extension activities.

The Rural Development and Panchayat Raj Department is one of the implementing agencies in the State of Karnataka. As on 31 March 2011, a total of 4,33,223 plants have been installed by the Department, of which 12,902 have been completed during the year 2010–11.

The scope of the present study included biogas plants that have received subsidy during the year 2010–11. The study sample comprised 417 biogas plants, i.e., all the plants implemented in four selected districts, namely, Davangere, Mandya, Raichur, and Uttara Kannada. User feedback and opinions of 389 individual beneficiaries and 100 non-beneficiaries were collected through semi-structured questionnaire survey and focus group discussions on various aspects of implementation and the benefits perceived as well as reasons for not opting for a biogas plant. Site observations were carried out to verify the quality of implementation and technical aspects of functioning of the plants. Interviews were carried out with turnkey agents, project engineers, and officials of the implementing agency to understand the implementing mechanism, the problems faced, and suggestions for improvement in future programmes.

Upon analysing the findings of the study, it may be inferred that the project is heading in the right direction in terms of the objectives set. The study brought out the fact that most users benefitted from smoke free cooking, which reduces the drudgery of rural women in collecting and using conventional firewood. Various social benefits such as considerable reduction in indoor air pollution, significantly less expenditure on cooking energy, and improvement in the health of the women have been realized by users. However, it was noticed that most of the beneficiaries do not seem to be aware of the use of biogas slurry as organic manure; hence, awareness campaigns need to be carried out in this regard. The most common reason for not adopting biogas technology by non-users is lack of awareness on the scheme.

In conclusion, it may be said that the success of the programme depends on large scale awareness, proper selection of beneficiaries and turnkey agents, capacity building of all stakeholders, timely release of subsidy amount, streamlining procedures of implementation, involving NGOs/SHGs, and the convergent efforts of various agencies, departments, and organizations engaged in promoting biogas technologies in the State.