

GONDWANA UNIVERSITY, GADCHIROLI

MINOR RESEARCH PROJECT SCHEME (MRPS)

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Project Title

***“Sensitization of Biogas Technology with Special Reference to
Adaptation and Rural Livelihood Improvements”***

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Executive Summary

Energy is a very important ingredient in the development process and any nation. Its utilisation and per capita consumption is an important indicator of the socio-economic development of any country. Energy sector has a strong impact on poverty reduction through education, income, health, gender and environmental conditions. In India however, energy demand is continuously increasing, but its supply is not increasing proportionally. Hence, efforts to increase energy supply to match the increasing energy demand are needed.

In this context biogas is one of the promising renewable technology which having ability to convert animal, agriculture, municipal and industrial waste into a non-polluting form of energy. In developing countries and specially in low income countries, biogas is used generally for cooking, heating and lighting. As compared to the traditional fossil fuels and untreated solid biomass, biogas is a clean fuel which having other benefits like reducing greenhouse gases emission, reducing indoor air pollution which ultimately related to good health and livelihood of people also. In India biogas technology was introduced in 1981 as an alternative option for non renewable energy to combat energy crisis.

As 70% population of India lives in villages and being an agricultural country, lot of raw materials are available, still the dissemination rate of this technology is very poor.

Considering the whole scenario, a study was undertaken in Marda (motha), Agarzari and Arwat villages of Chandrapur taluka in Chandrapur district to make sensitive ruler people about biogas technology, so that they would be ready to adapt this technology for improving their livelihood. The ultimate goal of this research was sensitization of biogas technology with special reference to adaptation and rural livelihood improvements. The aim of this study was to explore the root causes for low adoption level of biogas technology. During the course of study it was observed that in the study area there is lack of awareness about the advantages of biogas technology. People are ignorant about the ill effects of indoor air pollution due to direct burning of biomass. They are not habitual to the technical aspects of the biogas technology and feels it more complex as compared to the biomass, which is easily available to them and burn it to get satisfy their energy needs. Government has provided each household a LPG connection, however the problem remains as it is, since the government cannot fulfil lifetime requirement of LPG of rural people. Hence they remain dependent on biomass as a supportive energy solution to reduce LPG consumption.

During the course of study, total 417 respondents were interrogated from Arwat, Agarzari and Marda (Motha) villages. Out of the total respondents interrogated, only 6.55% of Agazari households, 2.0% of Arwat households and 17.29% of Marda households have biogas plants which is negligible. After interviews, discussion and counselling by using tools like questionnaire and pamphlets, respondents of the study area were made sensitized about the adaptation of biogas technology. They were made aware about how the biogas technology could improve their livelihood in socio-economic respect, the result of which was 52.78% respondent of Agazari village 60.21% respondents of Arwat village and 57.87% respondents of Marda (Motha) were ready to adapt biogas technology in near future. Taking into consideration the percentage of households having biogas and the percentage of respondents ready to implement it, there are chances of improvements in this regard fulfilling the objectives of the research.