

Analysis of the Impact and Effectiveness of Government Funded Small-Scale Biogas Projects in Giyani Municipality, Limpopo

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Abstract : The aim of the study is to describe and understand the benefits and costs of having biogas digesters at both household and society level. On a household level, the purpose is to understand how rural households benefit from the biogas digesters, for example, by converting animal and human waste through biogas digesters, and at what costs the benefits are realized. At a societal level, the purpose is to understand the costs and benefits of biogas digesters relative to the situation of rural communities who do not have flush toilets and have no appropriate waste disposal services while they incur electricity costs. Multiple regression analysis was used to determine the effect of biogas digesters on electricity availability and waste management. The results showed that beneficiaries spent less on electricity using household waste, and also waste disposal costs were eliminated from household expenses. A move to biogas energy production can be beneficial to rural households. It is economically and environmentally friendly. Small-scale farmers need to be introduced to agricultural innovations that can assist them in producing nutritious crops at a low cost. This can be a good opportunity to start an agribusiness that focuses on organic crops. Extensions and training institutions have to play a part in supporting households to develop entrepreneurial skills. Cost-benefit analysis showed that the benefits of biogas exceed the costs of the biogas projects. This implies that this technology should be promoted in rural households. Government financial incentives must be put in place to motivate a generation of organic Agri-prenuers.

Keywords : Agri-prenuers, biogas digester, biogas energy, disposal costs

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