Determinants of people's willingness-to-adopt renewable energy technologies: a case of biogas adoption in Pakistan

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Abstract

Access to adequate, affordable, and reliable energy services is essential for sustainable development and poverty reduction efforts. In past, countries of the world largely depended on fossil fuels for their energy consumption. However, problems arising from non-sustainable use of fossil fuels led to interest in energy from renewable resources. These resources not only help to decelerate the rate of depletion of fossil fuels but also decrease the environmental burdens caused by the use of fossil fuels. A large number of efforts are underway to promote renewable energy technologies (RETs) worldwide, such as biogas. The dissemination of biogas technology, however, depends on socio-economic characteristics of population. This study was carried out with the aim to identify the association between socio-economic characteristics of population and their decision to adopt biogas technology. The results of the chi-square test confirm that a significant association existed between socio-economic characteristics such as education, landholding, cost on energy consumption, possession of livestock, and existence of smoke related diseases and the decision of households to adopt biogas technology. The study concludes that for large scale deployment of biogas technology, adequate public and private investments should be encouraged. Besides, the socio-economic characteristics of population which influence take up of biogas shall be taken into account while designing a biogas intervention. Also the government financial policies need to be pro-poor that provides biogas technology at subsidized rates. This will support poor households to easily finance biogas technology and move up the energy ladder.

Keywords—*Biogas technology, renewable energy technologies, socio-economic characteristics, willingness-to-adopt.*

Professional Biography (100-150 words)

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