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**THE CHALLENGES OF ADOPTING BIOGAS TECHNOLOGY AS AN  
ALTERNATIVE ENERGY SOURCE IN CHEMA AND TEGERES SUB-COUNTIES,  
KAPCHORWA DISTRICT**

**JUNE, 2015 ABSTRACT**

This study focused on the root causes for low adoption of Biogas technology as an alternative source of renewable energy in forested areas of Uganda. The study was conducted in Kapchorwa District in Mount Elgon Region, Eastern Uganda where a Biogas project has been in operation since 2000 but the adoption of biogas technology is still low and on decreasing trend. The study employed a systematic, purposive and census sampling procedure in selecting of different respondents, also study-villages are selected purposively in which only villages that are reached with Biogas project are included aiming at capturing the experiences of Biogas users, main challenges of Biogas technology. A total of 423 respondents were used in this study which included households, government and Biogas organization officers. The study adopted both qualitative and quantitative approaches for collection and analysis of data related to adoption of Biogas technology. The study was guided by three specific objectives; the first objective was examining factors affecting the adoption of Biogas technology in Chema and Tegeres sub-counties forested areas of Eastern Uganda. Findings through descriptive analysis have shown that all factors as per conceptual framework have relationships with adoption of Biogas technology and that the perception on the major factors influencing adoption of Biogas technology differed among Biogas adopters and non-adopters. However, the main challenges experienced by Biogas adopters (52.4%) were that, the plants were not producing enough energy for cooking due to the problem of feeding stock which is one of the main raw materials for Biogas functioning. The study findings also revealed that among the households that adopted this technology (65.8%) are males while the higher percent of adopters households (57.1%) are females, this as result of wise decision of females household due to their exposure to health risk fuel wood collection and smoke from cooking heating with fuel wood. The findings also showed that (52.4%) of women were more relatively exposed to the risk of fuel wood usage while adoption of Biogas technology improved their health status positively by decreasing the cause of fuel wood used related disease such as respiratory problem, headache, back pain and eye problem. Addition findings showed that (79.7%) of the respondents said government was not involved while (71.4%) said NGOs were partially involved. Therefore there is need for full involvement of government and various stakeholders to increase promotion of Biogas technology adoption in the study area in order to achieve a sustainable and safe environment.