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Exploring the Viability of Biogas Energy Potential in South Africa

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Abstract : Biogas technology has emerged as a promising solution for sustainable development, enhancing energy security while mitigating environmental hazards. Interest in biogas for household energy is growing due to its potential to address both energy and waste management challenges. To ensure biogas production contributes meaningfully to South Africa's future energy landscape, understanding public perceptions is essential for shaping effective policy measures. A household survey revealed that lower awareness of biogas correlates with reduced social and cultural acceptance, however, after providing basic information—such as a definition, a diagram, or one of two simple messages—support for biogas increased by 10% to 15% compared to the baseline. These findings highlight the critical role of awareness in building support for biogas as a key component of South Africa's decarbonization strategy.

Keywords: awareness, barriers, biogas, environmental benefits, South Africa

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