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"Filling gaps and removing traps
for sustainable resource management"

# Biogas Energy Potential in Syria: Prospects and Challenges

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**Abstract**

Syria suffers from a catastrophic civil war and a strong embargo that have negative consequences for all sectors and affects the country's exploitation of underground energy resources. Current low quantities of energy production and still increasing demand for reliable energy consumption open potentials for alternative sources of energy. Organic waste from different agricultural, industrial and domestic production has been increased in the last decades. However, methods of organic waste management are often ineffective in terms of health, environment and economic sustainability. Hence, it has become a necessary goal to seek effective technology that can convert organic waste into an energy source. The experience of producing biogas from agricultural and animal waste in developing countries is seen as one of the appropriate ways for generating renewable environmentally friendly energy. The main objective of this research is to investigate the feasibility of biogas production in Syria, its prospects and challenges. A full profile about the biogas potential resources and biogas plants history in this Mediterranean country is provided. A comparison between the situation in Syria and its neighbour countries is shown in order to provide a glimpse about the biogas situation in the Middle East area. The study found that although there is a real crisis in the securing of energy resources in Syria, biogas production technology has not been widely deployed yet due to the economic, technical, social, and other causes and difficulties. The study found that the basic components of the application of biogas production technology in Syria are available through the presence of suitable quantities of organic waste and the moderate climate in the region.

**Keywords:** Anaerobic digestion, biogas technology, developing countries, organic waste, renewable energy

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