Asian Journal of Research in Business Economics and Management
ISSN: 2249-7307 Vol. 11, Issue 11, November 2021 SJIF 2021 = 8.075
A peer reviewed journal

A REVIEW PAPER ON BIOGAS AND ITS OPPORTUNITIES

Mr. Pooran Singh*; Dr. Jitendra**

*SOMC,
Sanskriti University, Mathura, Uttar Pradesh, INDIA
Email id: registrar@sanskriti.edu.in

**SOMC,
Sanskriti University, Mathura, Uttar Pradesh, INDIA
Email id: jitendra.somc@sanskriti.edu.in

DOI: 10.5958/2249-7307.2021.00061.X

ABSTRACT

Biogas production is a very well technique that may be used to generate sustainable energy as well as valorise organic waste. Biogas is the result of a biologically mediated process known as anaerobic digestion, in which different microbes degrade organic materials through various metabolic pathways. Since ancient times, the technique has been extensively used in private homes to provide heat and electricity for hundreds of years. The biogas industry is booming these days, and new breakthroughs are laying the groundwork for biogas facilities to become sophisticated bioenergy manufacturers. In this context, biogas plants serve as the foundation for a circular economy model that focuses on nutrient recycling, greenhouse gas reduction, and bio refinery applications. This study covers the current state-of-the-art in anaerobic digestion for biogas generation and discusses future prospects. Furthermore, a historical overview of the biogas industry from its inception to current advances provides insight into the process optimization possibilities that are emerging.

KEYWORDS: *Anaerobic digestion, Biogas, Bio wastes, Manure Industrial waste, Solid waste.*

REFERENCES

1. N. Scarlat, J. F. Dallemand, and F. Fahl, "Biogas: Developments and perspectives in Europe," *Renewable Energy*. 2018, doi: 10.1016/j.renene.2018.03.006.
2. I. Angelidaki *et al.*, "Biogas upgrading and utilization: Current status and perspectives," *Biotechnology Advances*. 2018, doi: 10.1016/j.biotechadv.2018.01.011.
3. S. Achinas, V. Achinas, and G. J. W. Euverink, "A Technological Overview of Biogas Production from Biowaste," *Engineering*, 2017, doi: 10.1016/J.ENG.2017.03.002.
4. S. Mittal, E. O. Ahlgren, and P. R. Shukla, "Barriers to biogas dissemination in India: A review," *Energy Policy*, 2018, doi: 10.1016/j.enpol.2017.10.027.
5. Q. Sun, H. Li, J. Yan, L. Liu, Z. Yu, and X. Yu, "Selection of appropriate biogas upgrading technology-a review of biogas cleaning, upgrading and utilisation," *Renewable and Sustainable Energy Reviews*. 2015, doi: 10.1016/j.rser.2015.06.029.
6. F. R. H. Abdeen, M. Mel, M. S. Jami, S. I. Ihsan, and A. F. Ismail, "A review of chemical absorption of carbon dioxide for biogas upgrading," *Chinese Journal of Chemical Engineering*. 2016, doi: 10.1016/j.cjche.2016.05.006.
7. P. G. Kougias and I. Angelidaki, "Biogas and its opportunities — A review Keywords," *Front. Environ. Sci.*, vol. 12, no. June 2018, pp. 1–22, 2018.