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ECONOMIC POTENTIALS OF ANIMAL DUNG AS A VIABLE SOURCE OF BIOMASS ENERGY

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ABSTRACT

The increased dependence on Hydrocarbon products as main source of energy in Nigeria has created a scenario of both human, technological and socio-economic lapses and setback in the country. Rampant use of diesel generators as means of alternative energy yields unrelenting greenhouse gas emission in the atmosphere thereby endangering human lives. However, efficient and renewable energy sources have been explored and have been adjudged to be viable, reliable and sustainable alternative. Unfortunately, some of the harnessed and most popular renewable energy sources like solar energy, geothermal, hydroelectricity, tidal power, wave and wind power are very expensive and consequently out of the reach of an average individual. Biomass energy is a cheap renewable energy that is locally sourced. Biogas is a type of biomass energy that can be produced from waste materials. This paper explored the use of animal dung as one of the sources of biogas as well as identifies its economic potential. Noting that small scale biogas production is fully capable of replacing rural energy requirement for lighting and cooking, harnessing it will alleviate the present energy problem. The large scale production is capable of generating and feeding electricity into the mainstream power grid. Since animal dung constitutes environmental pollution and yields pathogens and parasites that are harmful to health, it therefore becomes necessary to harness it for better use.

Keywords: *Alternative energy, Biomass, Biogas, Animal dung, Sustainable, Power grid*