

## Exploring alternative energy sources as a Climate Change Adaptation Mechanism among Rural Women Baringo County, Kenya

Climate change stands as one of the most pressing and intricate challenges confronting the global community today, highly contributed by the energy systems. As the world's population continues to grow, the global demand for energy is increasing rapidly and is linked to environmental pollution and greenhouse gas (GHG) emissions thus the urgent need to seek for alternative energy sources that are renewable and with less emissions to the environment. (Akella et al., 2009). In Kenya rural households for instance, there is wide reliance on traditional fuels, such as firewood and charcoal. These traditional fuels have been proven to be unhealthy and a major drive for deforestation and greenhouse gas emissions. The high demand for firewood has led to firewood commercialization, the depletion of preferred firewood tree species and increase in the impact of climate change. Rural women being primary users of household energy, the burdens of poor energy access fall on them. This research delves into strategies of greenhouse gas (GHG) emissions reduction by proposing alternative energy sources that will reduce the impacts on both the environment and the health of the rural women in Kenya. The study will employ systematic literature review, case studies and participatory observation. The objectives of the study is to establish the energy consumption patterns by the rural households, identify potential alternative energy sources suitable for rural women, considering factors such as affordability, sustainability, scalability, and cultural acceptability and establish the socioeconomic implications of adopting alternative energy sources for rural women, including potential benefits such as improved livelihoods, income generation opportunities, and reduced health risks associated with traditional energy use. The findings will shed light on the unique roles of women in climate adaptation and contribute to the development of policy recommendations and interventions aimed at fostering sustainable adaptation strategies in rural areas in Baringo.

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