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**Gender and Climate change: A Study of Rural Farming Households' Adaptation and Resilience to Climate Change Based on Local Knowledge in the Niger Delta Region**

The research is about the impacts of climate change on rural peoples' livelihood. It examines how rural farmers use local knowledge in dealing with changes in weather patterns in the context of land degradation, poverty, and changing social structures. Climate change has dire consequences for the livelihood of the rural people of the Niger Delta region of Nigeria, especially the rural farming household. This is because it places significant stresses on food production and availability, which can lead to increased risk of hunger and famine, particularly among the poor and the most vulnerable groups. Gender inequality puts women and girls especially at risk or makes them more vulnerable to the impacts of climate change. Climate change makes access to food sources unpredictable and increases poverty and disease. Women bear the brunt of all these and resulting conflicts affect them disproportionately. Some researches show that women are disproportionately affected by natural disasters such as drought, floods, and heat waves. According to the World Health Organization, adverse reproductive outcomes follow disasters, including early pregnancy loss, premature delivery, stillbirths, delivery-related complications, and infertility.

Women have an in-depth knowledge of the type of ecosystems which surround them. In agriculture, women are often involved in all phases of farming, from seed selection and planting, to harvesting, weeding, winnowing, and storing grain. They are often the local educators, passing on traditional knowledge and technologies. When confronted with the problems associated with climate change, the people of the region respond to this situation by developing coping strategies, on an individual and a collective level.

Furthermore, climate related changes have been experienced in the past, and the rural people have used local knowledge and practices in mitigating against the impact of climate change and variability on their lives and livelihood. By investigating this knowledge base, we shall be able to understand the changing dynamics of the knowledge used in the past and those that are being used in these modern times. It therefore touches on the scientific debates on global climatic change and its local and regional impacts by looking at the impact of climate change on rural farming household's food and livelihood security.

During my fellowship period at the Rachel Carson Center, I intend writing a couple of articles based on analysed data gathered from the field. The scientific significance of the study lies in bringing together climatic studies and livelihood theory. On a more empirical level, relating

the climate change problem and linking it with gender relations that goes on at the household level is new and not yet understood well. Also findings from this study can help to reduce the stresses, shocks and uncertainty that may arise due to climate change, thereby increasing the resilience of the farming household to the problems of climate change on their livelihood. For policy makers, lessons can be learned from the local knowledge used by the rural farming households in dealing with climate change-related issues.