

# IMPROVING KNOWLEDGE AND PRACTICES OF MITIGATING GREENHOUSE GAS EMISSION THROUGH WASTE RECYCLING IN A COMMUNITY, IBADAN, NIGERIA

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Throughout the world, waste sector has been implicated in significant contribution to anthropogenic greenhouse gas (GHG) emissions. Involving communities in recycling their solid waste would ensure climate change effect mitigation and resilience. This study was carried out to improve waste management practices through a community-led intervention at Kube-Atenda community in Ibadan, Nigeria. The study adopted a quasi-experimental design, comprising mixed method of data collection such as semi-structured questionnaire and a life-cycle-based model for calculating greenhouse gas generation potentials of various waste management practices in the area. A systematic random sampling was used to select sixty (60) households for a survey on knowledge, attitude and practices of waste management through recovery, reduction, reuse and recycling (4Rs) before and after the training intervention. Data collected were summarised using descriptive statistics, chi-square test, t-test and ANOVA at  $p=0.05$ . The mean age of the respondent was  $49.7 \pm 16.7$  and 68.3% were females. Respondents' knowledge scores before and after the interventions were significantly different:  $7.07 \pm 1.48$  and  $11.6 \pm 1.6$  while attitude scores were:  $8.2 \pm 2.3$  and  $13.5 \pm 0.8$ . There were significant differences in the major waste disposal practices in the community before and after the intervention. All (100%) the participants were willing to participate in waste recycling business and the model predicted that adoption of 4Rs strategy had a great potential in saving greenhouse gas emissions in the community. The behaviour of the community people has changed towards waste management that promote climate change mitigation and adaptation through waste reduction, reuse, and resource recovery.

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