ADOPTION OF PURPLE TEA FARMING AS A COPING MECHANISM TO CLIMATE CHANGE, KERICHO COUNTY, KENYA

R. K. Kimtai[1], B. Karanja[2] and R. Karanja[3]
[1]Institute of Energy and Environmental Technology, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya
[2]Institute of Energy and Environmental Technology, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya
[3]Department of Botany, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya
Email: *ronkim2233@gmail.com*

Abstract
Purple tea is considered favourable in terms of productivity, health, market and resistance to changing weather patterns. The study aimed at establishing the rate of adoption of purple tea farming, determining the socio-economic factors that hinder adoption and determining the role of purple tea farming for carbon sequestration. Sampling techniques used included purposive, systematic, random, cluster and stratified. Data was collected by use of CO_2 and RGR algorithm, questionnaires, in-depth interviews, literature review, observation and photography. Analysis was done using both descriptive and inferential statistics. The result showed that purple variety showed high rate of drought resistance (90%) compared to green variety (10%). Green variety showed high resistance to frost and hailstone and low resistance to drought. Purple variety showed a diminished response to disease and pest resistance (70%) while green variety showed improved resistance (30%). *T*-test result showed that there was significant difference in disease and pest resistance between the two varieties. It is expected that the findings of this study will enable scientific researchers and policy makers make wise decisions regarding the adoption of available adaptation measures to achieve the sustainable development in Kenya.

Key words: Adoption; purple, coping, mechanism, sequestration