

## EFFECTS OF FRESH WATER DEGRADATION ON HUMAN ACTIVITIES: A CASE OF ATHI RIVER, MACHAKOS COUNTY, KENYA

Kagendo J.<sup>1</sup>

Kirinyaga University, KENYA

Correspondence: [jfrancis@kyu.ac.ke](mailto:jfrancis@kyu.ac.ke)

### ABSTRACT

Global diminishing of essential natural resources for survival of biodiversity due to depletion and pollution is a concern for governments and the United Nations's agenda 21 which suggested best ways to conserve the resources. African water vision 2025 has raised concerns over equitable and sustainable use of water resource for socioeconomic development. There is great global concern over high levels of freshwater degradation. In Kenya, freshwater degradation is on the rise as reported by National Environmental Monitoring Authority. The authority has given warning on poor solid waste disposal and discharge of effluents most water bodies. In Machakos County where the study was carried out there is evidence of freshwater degradation yet the majority of residents are highly dependent on fresh water sources for their livelihood. No study had been carried out to establish a relationship between degradation of water resources and the community's livelihood. This study assessed effects of freshwater degradation on human economic activities including domestic consumption, agricultural activities, and fishing activities. The study adopted a descriptive research design. Both qualitative and quantitative data were collected from 160 respondents and analyzed using descriptive statistics and later subjected to inferential statistics. The Pearson Correlation test ( $r=0.195$ ,  $p=0.028$ ) revealed a significant correlation between water degradation and level of disturbances on domestic activities. Regression equation:  $A=2.345406+0.345X_1$ , ( $P>0.05$ ) showed a significant relationship between water degradation and agricultural activities. The coefficient of the regression was 0.167 at ( $P<0.05$ ) implying that a unit increase in water degradation significantly increased disturbances on fishing activities by 0.167 units.

**Key words:** *Natural Resource, Fresh Water, Degradation, Human Activities*