87. Influence of socio- economic factors to long term adoption of improved sanitation through community led total sanitation in Magarini sub-county, Kilifi county, Kenya

Simiyu Kelly 1* Josephine Mutembei 1 Jane Kawira Mberia 1 Grace Kasiva Eliud

Meru University of Science and Technology, Meru, Kenya

Email: simiyuwanjala4@gmail.com

Subtheme: Engineering - Sustainable Infrastructure Solutions for climate resilience; Sustainable Sanitation Systems for climate-responsive urban environments.

Abstract

A significant portion of the Kenyan population, approximately 5.6 million people, still practice open defecation, highlighting the need for effective sanitation interventions. On health Impacts, 17,100 child deaths occur annually due to diarrheal diseases in Kenya 90% linked to inadequate sanitation. This has aggravated the increase of Helminth infections and stunted growth. In Kilifi County, there is a need to scale up CLTS in the across all wards of Magarini Sub County where there is no ODF certified villages despite only 10% of them being triggered. This study delved into the socio-economic factors influencing the long-term adherence to CLTS-driven sanitation improvements within the community. It employed a convergent research design, collecting quantitative data through structured questionnaires from 388 household heads, selected using stratified and proportionate simple random sampling techniques. The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 25, which provided both descriptive and inferential statistics to explore the relationships between various factors. The study found a statistically significant association between location and religion in Magarini Sub-County, with a chi-square test value (χ^2) of 34.558, degrees of freedom of 20, and a p-value of 0.027. This indicates that geographical factors have a moderate influence on religious affiliation, as evidenced by Cramer's V coefficient of 0.162. However, no significant association was found between education level and population distribution. These findings underscore the need for targeted cultural and social policies that consider the geographical and religious dynamics of the community. The study highlighted the critical role of personal savings and agricultural resources in sustaining sanitation initiatives. It suggested that sustainable funding mechanisms, community engagement, employment income, and government support are crucial for the long-term adoption of improved sanitation through CLTS. The reliance on these financial resources points to the necessity for strategies that bolster economic stability and support sanitation improvements. Policymakers and education stakeholders can use these insights to enhance educational outcomes and address the sanitation needs specific to different community groups. The study recommended further research into factors such as household income and education to gain a deeper understanding of the infrastructure needs for long-term adoption of improved sanitation in Magarini Sub County. By addressing these socio-economic determinants and fostering a supportive environment, it is possible to achieve better sanitation and hygiene outcomes, ultimately reducing the disease burden associated with fecal-oral infections in the Sub County.

Keywords: Socio economic factors, Sanitation interventions, sanitation practices, Improved sanitation, Community Led Total Sanitation, Fecal-oral