

## **Abstract**

Global warming influences have brought negative climate change consequences on global livelihoods and household food security of the world's 36 million fisher folks and nearly 1.5 billion consumers who rely on fish for their dietary animal protein. Past studies have concentrated on climate change influences of marine and oceans' fisher communities; they have investigated mainly climate variability and climate change impacts on fish distribution and production. Limited studies have explored the interaction between impacts of climate change on the fishing activities on inland and fresh waters such as in Lake Victoria and the fishers' adaptive activities. The discussion of this article is based on a research which was focused on Mbita location on the shore of Lake Victoria where fishing is main livelihood activity of local community. The study was guided by the following research objectives to: Determine the influence of gendered effect of climate change/variability on fisher activities among the Mbita and Highlight the current coping strategies and underscore the possible opportunities available to the fishers due to CV/ CC in Mbita sub-county. The study used a constructivist epistemology paradigm and the mixed methods research design to collect and process the findings presented. Yamane's formula (1964) is used to get the sample size of 388 respondents out of a target of 13191. Primary data was collected using questionnaires; interview schedules for KII and FGDs. Secondary data collection was collected through reviewing of relevant documented information, from fisheries and climate change reports, working documents and related research articles on Mbita for the last 30 years. The validity of the instrument was done through content validity with the supervisors. The instruments were piloted in test retest and data generated processed using computer supported software (SPSS) Statistical Package for Social Sciences and presented in descriptive and inferential statistics. The study found that there was reduced fish catch was statistically significant with a p-value of 0.000. The effect of climate change on the loss of life of the fishers is statistically significant with a p-value of 0.001 and under the objective on coping strategies the study found that adaptation required transformation of mind set that called for bigger investment which required the collaboration and consultation of entire Mbita community and county government to address environmental and conservative resource utility. The study concluded that lack of alternative livelihood opportunities/options is the major constraints to adaptation for people living in the Lake Victoria region escalated with limitation of skills outside fishing industry, limitation of other employable professional skills including lack of capital. The study recommends a trans

disciplinary consentization of adaptive strategies which can translate into flexible and sustainable CCA gender inclusive livelihood activities. Future research should explore participatory action research on environmental influences affecting CCA by comparing findings across other beaches.