

The present study assessed the household-level biophysical vulnerability to climate variability and extreme events of fish farmers in Kitui East and Kitui Central Sub counties of Kitui County, Kenya. The study employed a descriptive survey design and a total of 60 farmers constituted the sample. Carefully selected indicators for exposure and sensitivity were used to operationalize vulnerability. Principal Component Analysis (PCA) was used to assign weights to the indicators. Biophysical vulnerability indices indicated that Kitui East fish farmers were more vulnerable (3.70) as compared to Kitui Central fish farmers (-0.80). In conclusion, the study revealed a high biophysical vulnerability of fish farmers to climate variability and extreme events in arid and semi-arid lands. Therefore, fish farmers' access to off-farm income and their adaptive capacity should be a primary target as fish farming stakeholders lack control over environmental factors that increase the biophysical vulnerability of fish farmers.