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Assessment of Biodiversity and Climate Change among Food Marketers in Akure Metropolis, Nigeria

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Abstract

The study analyzed the assessment of biodiversity and climate change among food marketers in Akure metropolis, Nigeria. A two-stage sampling procedure was used to select 120 food marketers from the study area. Primary data were used for this study through a well-structured questionnaire, focus group discussions (FGDs), and environmental monitoring devices**.** The collected data were analyzed using descriptive statistics, analysis of variance (ANOVA), and a multiple regression model. The results showed that 78.3% of respondents were female, with an average age of 46.97 years. Oja Oshodi shows the highest overall biodiversity, while Oja Oba has a larger share of marketers in the lowest biodiversity range (≤ 1.0). Oja Araromi shows moderate to high biodiversity, and Oja Arakale presents a mixed distribution with a significant portion of its markers in both the none and moderate biodiversity categories. The ANOVA results indicate no significant differences in the biodiversity of food crops among the four markets. The ANOVA of key climate change indicators (CO, CO_2, temperature, relative humidity) across three locations in each of the four markets yielded significant results for all indicators. The results further revealed that Gender, Level of Education, membership in an association, and Carbon dioxide (CO_2) had a significant influence on the marketers' sales. The study concludes that sales/day are affected by biodiversity and climate change, suggesting that, at a minimum, CO_2 is associated with sales/day and that the introduction of diverse food crop products in the study area and Nigeria at large is occurring.

Keywords: *Biodiversity, Climate change, Food marketers, Analysis of variance, Margalef index, Akure metropolis*