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**Fish farmers' choice of adaptation strategies to climate change in Bayelsa State****\*Samuel Preye Jimmy<sup>1</sup>, Julius Emeka Omeje<sup>2</sup> and Funlayefa Adokeme<sup>1</sup>**<sup>1</sup>Department of Agricultural Economics, Extension and Rural Development, Faculty of Agriculture, Niger Delta University, Bayelsa State, Nigeria<sup>2</sup>Division of Socioeconomics and Extension, National Institute for Freshwater Fisheries Research, P.M.B 6006, New Bussa, Niger State, Nigeria

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**Abstract**

This study examines the choice of climate change adaptation strategies among fish farmers in Bayelsa State. The specific objectives were to describe the socio-economic characteristics of the fish farmers and to examine the effect of socioeconomic characteristics of the farmers on their choice of climate change adaptation strategies in the study area. The study selected 120 fish farmers using multistage random sampling methods and primary data were collected from the farmers using questionnaire. The study employed frequency, percentages, mean, and multinomial logistic regression model to analyze data. The results indicate that household income, educational status, and access to credit are the most significant determinants of farmers' adaptation choices. Older farmers tend to adopt more adaptation strategies due to their experience, while larger household sizes positively influence labor-intensive adaptation techniques. Educational status strongly impacts information and education strategies, as well-educated farmers are more likely to access and utilize climate-related information. Farm size and extension contact significantly affect economic and diversification strategies, highlighting the importance of resource availability and advisory services in adaptation efforts. The study recommends the implementation of targeted policies to support farmers in building climate resilience. These include enhancing access to credit through financial programs, strengthening agricultural extension services, and promoting education on climate adaptation practices. Furthermore, investing in climate-resilient infrastructure and providing incentives for sustainable farming practices can improve farmers' adaptive capacity. By addressing these socioeconomic barriers, policymakers can enhance climate resilience and ensure food security.

**Key words:** *fish farmers, adaptation strategies, multinomial logistics, Bayelsa state, climate change*