# EVALUATION OF BIOSECURITY PRACTICES AMONG FISH FARMERS IN UDU LOCAL GOVERNMENT AREA,DELTA STATE,NIGERIA

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## Abstract

The study assessed biosecurity measures in fish farms in the Udu Local Government Area, Delta State, Nigeria. A purposive sampling technique was used to select four communities (Uwian, Orhuwhorun, Ugbisi and Kotokoto) in the study area, while cluster sampling was used to select one hundred and sixty-eight (168) fish farmers from Udu Local Government Area of Delta State, Nigeria. Data was collected using a structured questionnaire and interview. Descriptive and Chi-square statistic was used for data presentation and analysis. The study reveals that the majority of the fish farmers (67.9%) in the study area do not practice biosecurity measures and 58.9% have no understanding of biosecurity. From the study, fish farming is practised by youths between the age of 21 – 40 years (35.7%) and the majority of them have attained tertiary education (55.4%), yet have little experience in fish farming (2 – to 4 years) (31%). Hence, lack of fish farming experience, lack of awareness and understanding of biosecurity are major factors that influenced the noncompliance to biosecurity measures by fish farmers in the study area. This study created biosecurity awareness amongst the fish framers in the study area. The findings of this study will serve as a baseline source of information for further research. Fish farmers should adhere to strict biosecurity and biosafety measures in ponds and cages to avoid the spread of diseases in their fish population.

## INTRODUCTION

In recent decades, the aquaculture sector has undergone considerable changes in terms of structural and production growth, with a clear increase in supply complexity and dynamics. Disease prevention is of paramount importance; therefore, biosecurity has become a strategic tool in farm management . Biosecurity is a set of management and physical measures designed to reduce the risk of introducing pathogens into an aquatic animal population . If efficient biosecurity measures are in place, it is possible to detect the emergence of new or previously unrecognized pathogens. Thus, by minimizing the consequences of diseases, there will be a direct increase in farm productivity. (Fishes,2023).

According to Fishes 2023, disease prevention is of paramount importance; therefore, biosecurity has become a strategic tool in farm management . Biosecurity is a set of management and physical measures designed to reduce the risk of introducing pathogens into an aquatic animal population . If efficient biosecurity measures are in place, it is possible to detect the emergence of new or previously unrecognized pathogens. Thus, by minimizing the consequences of diseases, there will be a direct increase in farm productivity. The general objective was to assess fish farmers' compliance with biosecurity measures on fish farms in the Udu Local Government Area of Delta State.

## METHODOLOGY

- Study Area

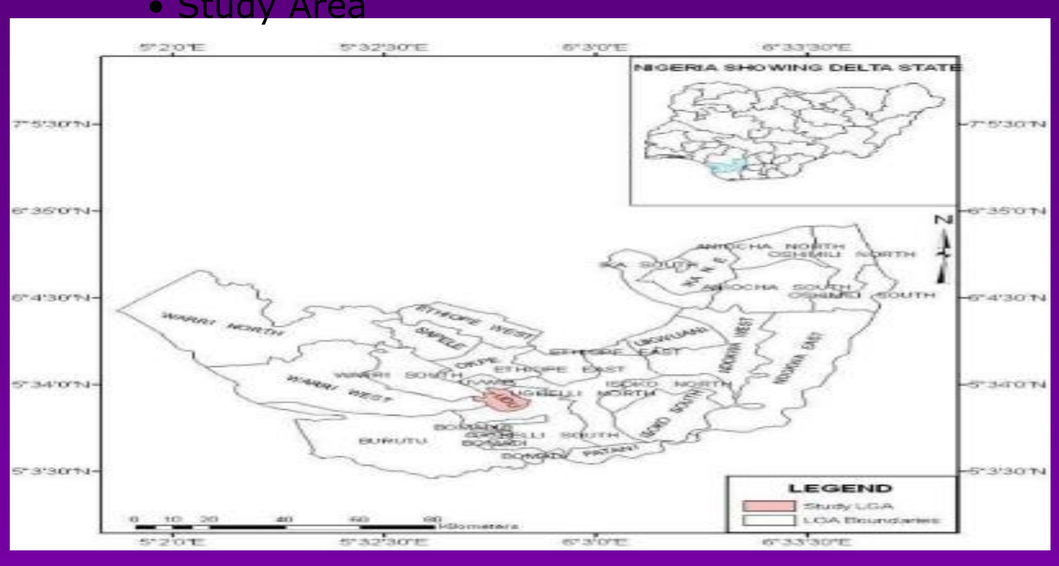



**Figure 1. Map of Delta State Showing Udu Local Government Area**

**This study was carried out in Ovwian, Orhuwhorun, Ugbisi and Ubogo community of Udu Local Government Area of Delta State. Delta State is Located in the South-South geopolitical zone of Nigeria.**

**• Research design and type**
**Quantitative and qualitative research design was adopted with the use of well-structured questionnaire to survey the population using random sampling methods. Descriptive statistics was used to analyze the data collected**

**• Sample size and sampling procedure**
**Purposive and cluster sampling technique was used to find solutions to the research questions.**

**• Data collection**
**The method adopted in this study involved gathering information and data through primary and secondary data.**

**• Data analysis**
**The data collected from the study area was analyzed using descriptive statistics and chi-square analysis.**

## RESULTS

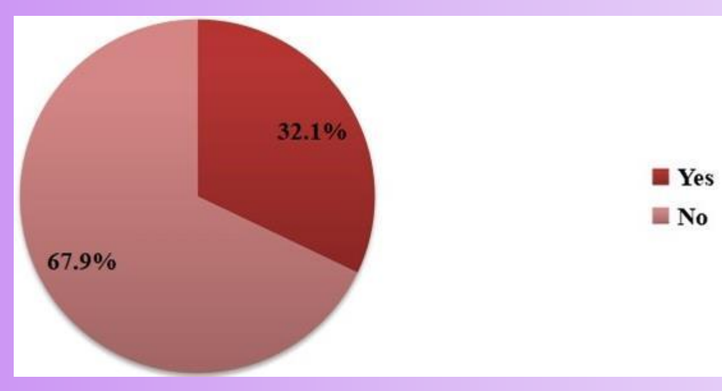



**Figure 2.** Showing bio-security awareness among fish farmers in the study area

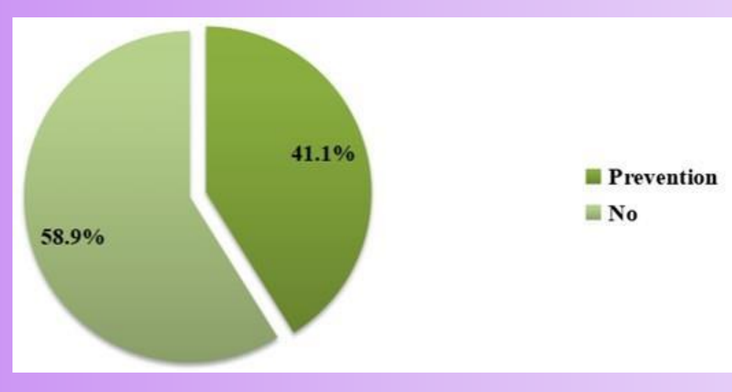



**Figure 3.** Showing understanding of bio-security among fish farmers in the study area

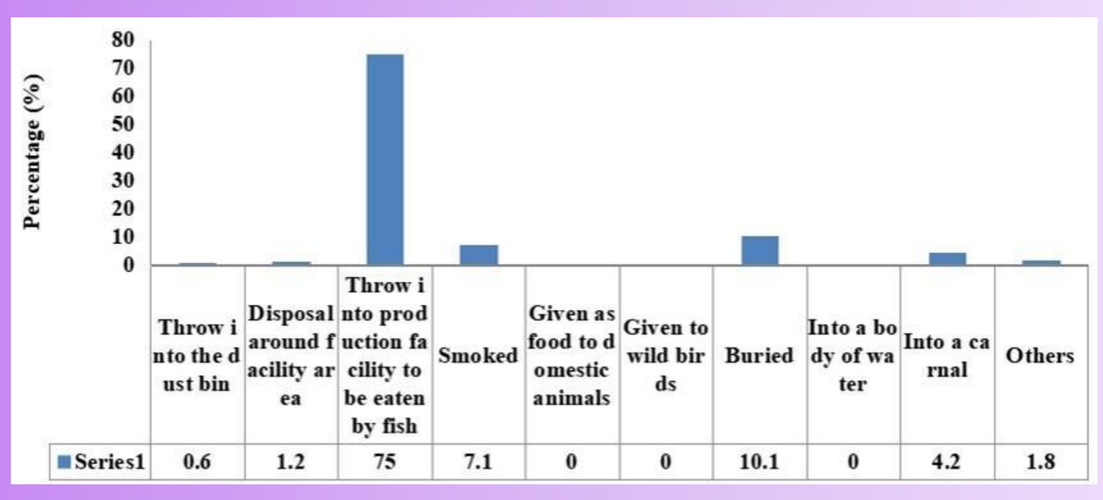



**Figure 10.** Showing disposal of dead Fish by fish farmers in the study area

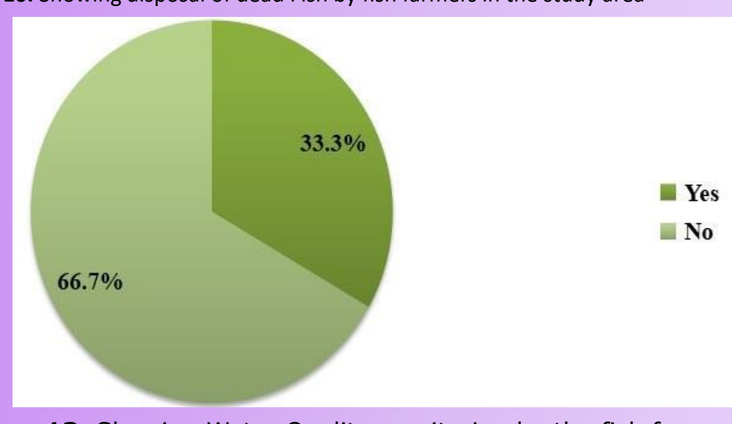



**Figure 13.** Showing Water Quality monitoring by the fish farmers in the study area.

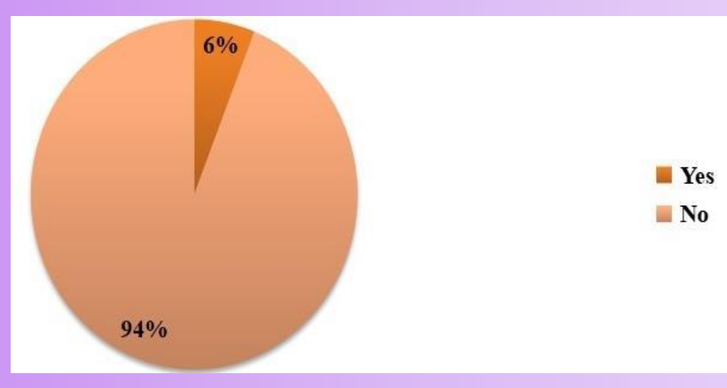



**Figure 14.** Showing practice of functional foot dip by the fish farmers in the study area.

## CONCLUSION

The results obtained from this study have shown that biosecurity measures are poorly implemented by fish farmers in the study areas. Therefore, there is a need for proper education for farmers on biosecurity measures compliance.