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**FACULTY OF AGRICULTURE AND ANIMAL SCIENCES**

**ADOPTION AND PROFITABILITY OF POND FISH FARMING IN PALLISA  
WETLAND SYSTEM**

**BY**

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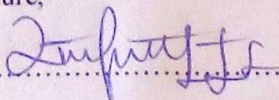
**A RESEARCH REPORT SUBMITTED TO THE DEPARTMENT OF  
AGRIBUSINESS AND EXTENSION IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR OF  
AGRIBUSINESS OF BUSITEMA UNIVERSITY**

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## DECLARATION

OKIRIA ROBERT ISAAC declares that this research report was written and compiled by me with guidance from my academic supervisor Mr. Okiror Simon Peter and by other research journals. It has never been presented to any institution for any academic award.

Signature,

  
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Date

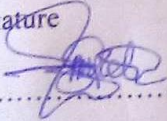
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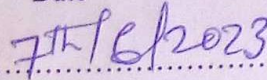
## APPROVAL

This research was written under my supervision and guidance, it will be submitted to the department of Agribusiness and Extension for examination with my approval as the academic supervisor.

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## **DEDICATION**

I dedicate this research report to my friends and family members more especially to my beloved mother **Ms. Acham Christine**, Uncle **Emurwon Albert**, my brothers **Sam Abura**, **Olinga Emmanuel**, **Otai John**, and my academic supervisor **Mr. Okiror Simon Peter**.

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## LIST OF ABBREVIATIONS

CAGR	Compound Annual Growth Rate
CBOs	Community Based Organizations
FAO	Food and Agricultural Organization
FGDs	Focused Group Discussions
GDP	Gross Domestic Product
IAA	Integrated Aquaculture Agriculture
KII	Key Informant Interviews
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
Mm	Millimeters
MT	Metric tons
NAADS	National Agricultural Advisory Services
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
OWC	Operation and Wealth Creation
PDFPS	Pallisa District Fisheries Production Statistics
PDM	Parish Development Model
SMEs	Small and Medium Enterprises
SPADA	Special Program for Aquaculture Development in Africa
TOT	Transfer of Technology
UBOS	Uganda Bureau of statistics
USD	United States Dollar

## ABSTRACT

This Research was conducted to assess the adoption and profitability of pond fish farming in Pallisa Wetland system. The objectives of the study were; to assess fish farmer's level of knowledge on pond management practices, to assess the profitability of pond fish farming and to assess the factors that influence the profitability of pond fish farming in Pallisa District. Data was collected using; the KAPs questionnaire model, Key informant interviews, focused group discussions. The study used a simple random sampling technique that was employed to select participants in the population. The study targeted 70 respondents and of which all of them respondent. The study recommended the following; more extension services should be enhanced to train farmers on pond fish farming, In general farmers should change their attitude towards fish farming, the government should also inform the farmers about the benefits of fish farming through mass media and agribusiness trade exhibitions. Majority of the respondents have positive attitude to pond fish farming (e.g. it is profitable), this showed that fish farmers are reluctant, ignorant towards fish production, and also majority did not know that fish production can be done on large scale. They still believe rice growing is more suitable in wetland areas than fish farming. The findings of this study show low levels of knowledge and practices of pond management among smallholder fish farmers in Pallisa wetland system. These deficiencies in knowledge and practice are a major impediment to achieving the targets of increasing aquaculture production, poverty alleviation, and food security through the promotion of fish farming in Pallisa and Eastern region at large. On top of that, the fish farmers' poor attitudes towards effluent management are a threat to sustainable water resource use. Yet, fresh water is a highly coveted natural resource that is important for survival and socio-economic development, Fish farming is more profitable than rice growing; this is due to low costs incurred in the production for example purchasing of organic fertilizers (compost), slashers and others.

# CHAPTER ONE

## INTRODUCTION

### 1.0 Background to the study

Pond fish farming involves the rearing of fish in aquatic environments under controlled environmental conditions in production systems such as ponds, tanks, cages, and raceways, (Sicuro, 2021).

Commercial fish farming started in China in the 12<sup>th</sup> Century B.C, and it has extended throughout the world (Sicuro, 2021). With a contribution of about 16% of the total animal protein supplies, fish pond farming is presently the most productive industry in the agriculture economy (Adeleke et al., 2020). Global fish production was estimated to have reached about 179 million tons in 2018 with an estimated value of USD 401 billion (Safina et al., 2018). It accounted for 82 million, approximately 46% of the total production, valued at USD 250 billion, and contributing 52% of the produce for human consumption (Adeleke et al., 2020). As opposed to the declining fish production in Europe and Oceania, production in the continents of Africa and Americas has increased although it is still below the dominant Asian production that accounts for over 89% of the global production (Le Goff et al., 2022). The African contribution to world fish production is still insignificant (~2.7%) although significantly increasing with large-scale investments in Egypt, Nigeria, Uganda and Ghana (Ondhoro et al., 2021). The region produces around 1.74 million of fish produce, with Egypt (1.1 million), Nigeria (313,000) and Uganda (111,000) as the top three producing countries in Africa (MAAIF, 2020). The African production is dominated by Nile tilapia (43.6%), African catfish (11.9%) and common carp (10.15%) (Le Goff et al., 2022). The region recorded a 20-fold production increase from 110,200 to 2,196,000 from 1995 to 2018 with a compound annual growth rate (CAGR) of 15.55% (MAAIF, 2019). The growth of pond fish farming in the area was due to the advent and intensification of private sector controlled small and medium scale enterprises (SMEs) (Peter Kigongo Sserwambala et al., n.d.). Furthermore, the development of big commercial enterprises mostly stimulated by the combination of burgeoning public support, expertise, foreign direct investment, interest in fish farming, the global awareness raised through the New Partnership for Africa's Development (NEPAD), Fish for All Summit of 2005 (MAAIF, 2019). And the implementation of the FAO Special Program for Aquaculture Development in Africa (SPADA) contributed to the growth of pond fish farming (MAAIF, 2019). In Uganda, pond fish farming started in 1941 with the introduction of carp into the country by the colonial authorities (Adeleke, Robertson-andersson, et al.,

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