UNIVERSITY OF PORT HARCOURT

"EMBRACING THE NEW LIFESTYLE"

An Inaugural Lecture

by

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ORDER OF PROCEEDINGS

2.45 pm. Guests are seated

3.00pm. Academic Procession begins

The Procession shall enter the CBN Centre of Excellence auditorium, University Park, and the Congregation shall stand as the Procession enters the hall in the following order:

Academic Officer
Professors
Deans of Faculties/School
Dean, School of Graduate Studies
Provost, College of Health Sciences
Lecturer
University Librarian
Registrar
Deputy Vice Chancellor Research and Development
Deputy Vice Chancellor Academic
Deputy Vice Chancellor Administration
Vice Chancellor

After the Vice Chancellor has ascended the dais, the Congregation shall remain standing for the University of Port Harcourt Anthem.

The Congregation shall thereafter resume their seats.

THE VICE CHANCELLOR'S OPENING REMARKS.

The Registrar shall rise, cap, invite the Vice Chancellor to make his opening remarks and introduce the Lecturer.

The Lecturer shall remain standing during the Introduction.

THE INAUGURAL LECTURE

The Lecturer shall step on the rostrum, cap and deliver her Inaugural Lecture. After the lecture, she shall step towards the Vice Chancellor, cap and deliver a copy of the Inaugural Lecture to the Vice Chancellor and resume her seat. The Vice Chancellor shall present the document to the Registrar.

CLOSING

The Registrar shall rise, cap and invite the Vice Chancellor to make his Closing Remarks.

The Vice Chancellor's Closing Remarks.

The Vice Chancellor shall then rise, cap and make his Closing Remarks. The Congregation shall rise for the University of Port Harcourt Anthem and remain standing as the Academic [Honour] Procession retreats in the following order:

Vice Chancellor
Deputy Vice Chancellor Administration
Deputy Vice Chancellor Academic
Deputy Vice Chancellor Research and Development
Registrar
University Librarian
Lecturer
Provost, College of Health Sciences
Dean, School of Graduate Studies
Deans of Faculties/School
Professors
Academic Officer

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- Cherished Friends and Guests
- Unique Students of the University of Port Harcourt
- Members of the Press
- Distinguished Ladies and Gentlemen

DEDICATION

This inaugural lecture is dedicated to God.

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Once again, to the Almighty God, I say Thank You.

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PREAMBLE

Vice Chancellor Sir, it is a privilege to present this Inaugural Lecture to an array of distinguished scholars seated here. However, kindly permit me to take you all on a peep into my journey to the world of Aquaculture. As a student at the prestigious Federal Government College, Ilorin in Kwara State, my dream was to become one of the most respected medical doctors in Nigeria. I knew from the onset that achieving such a feat was more than a wish but hard work; I was therefore, motivated by the poem written by Henry Wadsworth Longfellow, "The heights by great men reached and kept were not attained by sudden flight, but they while their companions slept, were toiling upward in the night." I read like there was no tomorrow but did I become the medical doctor? No. Life has its twists and turns and at the last curve of my pursuit fate berthed me on the wave of Aquaculture. My sail on the aquatic storms during my industrial attachment at Ellah Lakes opened my mind to greater opportunities and a new page in my life.

After my National Youth Service, I did not hesitate in pursuing an M.Phil program with the then Rivers State University of Science and Technology, Nkpolu, Port Harcourt. Every step posed a new insight into the deep blue sea with a hunger for more. In my undergraduate days the Tilapia and its prospects were so appealing that I referred to it as "Aquatic Chicken". As a Fisheries Officer with the Ministry of Agriculture, Osogbo, then Oyo State I was involved in the practical aspect of breeding of Carps, which was an entirely new experience that was really engaging. Carps are exotic species of fish; whose multiplication demand utmost care and it was always a

WOW experience each time a set is successfully bred with minimal mortality. Working on the hybrid of *Clarias gariepinus* and *Heterobranchus* (catfish of different species) gave me yet another course to chat which at every turn was taking me deeper to the bed of the sea. Beyond the protein benefit to man, fish are interesting creatures to study. My PhD work took me to shellfish known as *Tympanatonus fuscatus var fuscatus* which are benthic organisms which owing to over fishing and pollution are fast disappearing. Commonly known as periwinkle, is very high in protein and minerals. It used to be a cheap source of protein and mineral but today it is highly priced and gradually leaving our menu. I had a dint of experience in Fisheries and Environmental Impact Assessment jobs with SPDC, AGIP and ELF through Jayess Consult. Yes, "Environmental Impact Assessment" was yet another window to aquatic resources management. In all of these, I am very passionate when it comes aquaculture at any level. Beyond the conventional lecturing, I have taken out time through different interventions to train over 60,000 men, women and youths in aquaculture and fish farming business in the Niger Delta Region.

INTRODUCTION

The Vice Chancellor, distinguished colleagues, members of the academic community, ladies and gentlemen. I stand before you today with a great sense of commitment and gratitude as we set out on an adventure of discovery and exploration. This inaugural lecture represents a defining moment, both a culmination of my academic journey and the beginning of a new chapter focused on sharing knowledge and addressing critical global challenges. I am deeply honored to stand as the first (1st) lecturer from the Department of Fisheries, Faculty of Agriculture, at the University of Port Harcourt to deliver this prestigious lecture. I express my heartfelt thanks to the Vice Chancellor for this platform to fulfill a noble tradition.

The 198th Inaugural Lecture is a summary of my research, presented under the theme *'Embracing the New Lifestyle.'* This lecture reflects my years of work in fisheries and aquaculture and invites us to rethink how we live in harmony with nature. Aquaculture—the farming of fish and other aquatic life—is more than just a business. When done sustainably, it provides food, creates jobs, and protects our environment. My research focused on finding better ways to farm fish while keeping our water and ecosystems healthy.

As a professor of aquaculture, I have studied how fish farming can support people, especially in coastal and rural areas, by providing income and improving food security. However, if not managed properly, aquaculture can harm nature by polluting water, destroying habitats, and overusing resources. That is why my work has centered on improving fish nutrition,

maintaining water quality, using healthier fish feed, and developing farming systems that reduce waste.

In this lecture, I will discuss how fish farming has evolved and how innovative, sustainable methods can help us produce seafood without harming the environment. By embracing new technologies, smarter regulations, and community involvement, we can ensure that aquaculture continues to feed people while preserving the planet for future generations. We are living in a time of great challenges—climate change, food shortages, biodiversity loss, and environmental degradation. These issues demand urgent action. We must shift towards a lifestyle that values sustainability, fairness, and resilience. This means working together—individuals, communities, and policymakers—to use resources wisely, grow food responsibly, and protect nature while advancing as a society. Selecting the right fish species, developing better fish feed, and promoting sustainable farming practices.

In this lecture, I will share key findings from my work and how they can contribute to building a stronger, more sustainable aquaculture industry. Embracing the new lifestyle, can create a future where fish farming supports both people and the planet.

2.0 THE OLD LIFESTYLE OF FISH FARMING

Fish farming in the past was done on a small scale, mostly for family use, with little technology or investment (FAO, 1999). Fish were raised in manually dug earthen ponds and borrow pits that relied on natural water sources but often lacked proper drainage, leading to flooding and pollution. Feeding practices were poor, with fish being fed agricultural and kitchen waste,

resulting in slow growth. Farmers had limited technical knowledge, leading to high fish mortality due to diseases and poor water management. With low investment and minimal access to loans or modern equipment, farmers struggled to expand. Fish production was inconsistent due to poor feeding and poor water conditions, often taking over a year to yield marketable fish. Selling fish was difficult as farmers had limited access to big markets, and poor infrastructure hindered transportation. Government support was weak, with little training or financial assistance, and fish farming was not widely recognized as a serious industry, as many people still relied on wild fish capture. Farmers mostly raised catfish (*Clarias gariepinus, Heterobranchus* sp.), tilapia (*Oreochromis* species), common carp (*Cyprinus carpio*), heterotis (*Heterotis niloticus*), and *Gymnarchus niloticus* as the main cultured fish species (Plate 1).

The old lifestyle of fish farming was basic and difficult, but farmers were slowly learning new ways to improve. Many challenges remained, but as more people became interested in fish farming, better techniques started to spread. This period helped set the foundation for modern fish farming, which is now more advanced and profitable. A key player in the industry is Ellah lakes. The farm situated at Obrikom in Ogba/Egbema/Ndoni Local Government area of Rivers State, was established by Late Senator Francis J. Ellah. It was the largest fish farm in Nigeria with over seventy production earthen ponds and a natural lake. Ellah Lakes Plc was one of Nigeria's foremost agriculture businesses, specializing in fresh water fish farming.

Vice Chancellor Sir, in 1988 I was sent to Ellah lakes on industrial training for six months. It was a fulfilling experience as I was engaged in all the farm activities. It was a great experience that showed me the hard work involved in

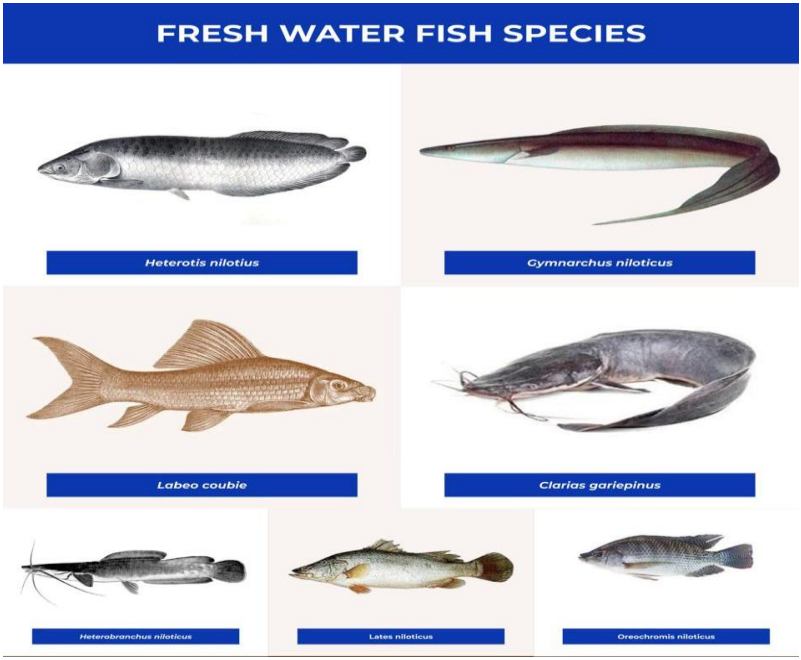

Plate 1: *Commonly cultured freshwater species*
(Source: *Jamabo, 2017)*

aquaculture and how it can be a successful business. I understood how fish are raised, the challenges farmers face, and how important fish farming is for food and business. This experience helped me decide to pursue a career in aquaculture.

Big Problems Farmers Faced: Traditional fish farmers struggled with theft, disease outbreaks, and water shortages, which made pond management difficult. Additionally, poor access to quality fish seed, feed, financial support, and proper

storage and transport led to slow growth and high post-harvest losses.

***Plate 2**. Concept of old lifestyle fish farming in earthen pond (**Source:** Jamabo, 2010)*

2.1 The Shift from Old to New Lifestyle

The shift in aquaculture is moving from old, harmful ways of farming fish to new, sustainable methods that protect the environment, support communities, and provide more food for the future. Old lifestyle of fish farming often caused problems for environmental pollution. Farms packed too many fish together, leading to disease and the overuse of antibiotics, which polluted the water and harmed other marine life. Uneaten food and fish waste made the water dirty, reducing oxygen and causing harmful algae to grow. Some farms cleared natural habitats like mangroves, which protect coastlines and support many species. Others relied on catching wild fish to feed farmed fish, reducing ocean fish populations.

The use of chemicals like pesticides also affected water life, and sometimes farmed fish escaped, disrupting local ecosystems. These harmful practices showed the need for more sustainable and eco-friendly ways to farm fish.
With overfishing, habitat destruction, and food shortages on the rise, aquaculture offers a sustainable way to meet growing seafood demand while protecting the environment (Jamabo & Ibim, 2010). Expanding Nigeria's aquaculture sector can boost fish production, create jobs, and ease pressure on wild fish stocks. Traditional fish farming faced challenges like low survival rates and poor profitability. Modern aquaculture, however, has revolutionized the industry. Advanced techniques now improve fish growth, health, and yields, making fish farming more efficient and profitable (FAO, 2022; Jamabo et al., 2016).

A key figure in this transformation was Ade Alakija, who helped scale Nigerian fish farming into a thriving industry. By producing high-quality fingerlings, improving fish feed, and developing large hatcheries, he fueled the rapid growth of catfish farming in the 1990s, creating jobs and enhancing food security. Alakija's work aligns with my research on *Embracing the New Lifestyle*, demonstrating how modern, science-driven aquaculture can be both sustainable and economically viable. His success with Durante Fish Industries in West Africa serves as a model for other regions, highlighting the need for policies and investments that support sustainable fish farming.

Though Alakija passed away in 2009, his impact endures. His contributions prove that aquaculture is not just about food production—it is an economic driver and a pathway to long-term environmental balance.


Plate 3. Durante Fish Industries' intensive catfish production ponds (**Source:** thefishsite.com)

2.2 Why the Shift was Initiated:

Old lifestyle of fish farming had many challenges, including low productivity, high fish mortality, and limited market access. Fish grew slowly due to poor-quality feed, irregular feeding, and inadequate water management, making it difficult for farmers to meet market demand or earn good profits. In contrast, modern aquaculture uses high-quality feed like Vital fish feed, Blue Crown, Coppens, etc along with controlled feeding schedules and improved pond management. This results in faster fish growth and higher yields. Disease outbreaks and fish mortality were also major issues in the past. Farmers relied on natural water bodies, making disease control difficult. Poor water quality, weak breeding practices, and lack of proper care further increased fish losses. Today, modern fish farming incorporates biosecurity measures such as water treatment, disease monitoring, and improved pond designs, significantly reducing fish deaths and increasing survival rates. Market access was another challenge, as traditional farmers struggled to sell fish beyond their local communities, often at

low prices. Modern aquaculture connects farmers to larger markets, supermarkets, and restaurants, ensuring better sales and higher income. Environmental concerns were also prevalent in traditional fish farming, which depended on rivers, lakes, and ponds. This led to pollution, overuse of natural water bodies, and disruption of aquatic life. Modern aquaculture addresses these issues through controlled pond systems, tanks, and recirculating water systems that minimize waste and protect the environment. Limited access to knowledge and technology was another setback. In the past, farmers relied on experience and traditional methods, with little exposure to scientific research or modern innovations like aerators and improved fish breeds. Today, training programs, research, and advanced technology equip farmers with the tools to improve fish farming efficiency.

Investment and business opportunities in aquaculture have also expanded. Traditional fish farming was mostly small-scale, with low profits and limited financial support. Now, with increased access to loans, government backing, and private investments, fish farming is recognized as a profitable and scalable business. Security was another issue, as fish theft was common in earthen ponds. Farmers frequently lost fish before harvest. Modern farms use concrete, plastic, or tarpaulin ponds, along with security fencing and proper management, reducing the risk of theft. With these advancements, modern aquaculture is transforming fish farming into a more productive, profitable, and sustainable industry.

3.0 THE NEW LIFESTYLE

Embracing a new lifestyle means making changes to improve the way we live and work, especially in a way that benefits

both people and the environment. In fish farming, this means moving away from old methods that use up too many resources and harm nature. Instead, farmers use new and better ways to raise fish, such as cleaner water systems, healthier fish feed, and smarter farming techniques. This helps produce more fish, reduces pollution, and ensures that fish farming can continue for a long time without damaging the environment. For example, instead of relying on rivers and lakes that can be overfished, farmers now use fish ponds, tanks, or special enclosures in the sea where they can control water quality and protect fish from diseases. They also use high-quality extruded fish feed that helps fish grow faster and healthier while reducing waste that can pollute the water. New technologies, like Recirculating Aquaculture Systems (RAS), clean and reuse water instead of letting it go to waste. Biofloc technology allows farmers to grow fish in smaller spaces while keeping the water clean naturally. These methods help farmers produce more fish in a sustainable way, ensuring there is enough seafood for future generations without destroying the environment.

Plate 4. *A conceptual diagram illustrating the components of a "New Lifestyle" in modern aquaculture.*

It highlights key aspects like advanced fish breeding, high-quality feed, modern farming technologies, better market access, and environmental sustainability.
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Incorporating Alakija's contributions into my research adds practical credibility to our arguments and helps illustrate how *embracing the new lifestyle* can be both achievable and beneficial on a large scale. Using better and smarter ways to farm fish helps create more jobs, produce more food, and keep the environment safe. This means fish farming can continue for a long time, providing food for people and helping communities earn a living without harming nature.

My Research impact in the new lifestyle:

1. Better and smarter ways to farm fish include:

- **Using clean water systems** – Instead of using dirty or polluted water, farmers now use special tanks and ponds with clean bore-hole, filtered water that keeps fish healthy. The study by Jamabo, *et al.*, (2016) examined how water energizers affect the growth and survival of *Clarias gariepinus* (African catfish) fry. A water energizer is a device or treatment used to improve water quality, making it more suitable for fish growth. We observed that using a water energizer helped African catfish fry grow faster and survive better. The energizer improved water quality, making it cleaner and healthier for the fish. As a result, the fish grew stronger and bigger in a shorter time. The findings are useful because simple water treatments can make fish farming more productive, profitable, and sustainable.

- **Protecting our waters for fish culture-** Water pollution threatens the very foundation of sustainable aquaculture, and understanding its impact is crucial for protecting fish stocks and food security. The study by Nkeeh and Jamabo (2019), examined the effects of Paraquat, a common herbicide, on Tilapia fingerlings under laboratory conditions, shedding light on how chemical pollution affects fish health, growth, and survival. By identifying the risks posed by such contaminants, we can push for better environmental policies, promote safer farming practices, and protect

aquatic ecosystems. Ensuring clean water for aquaculture means healthier fish, safer food for consumers, and a more sustainable future for fish farming. This research is a wake-up call—what we put into our water today shapes the future of aquaculture and the health of our communities.

- **Feeding fish properly** – Instead of using poor-quality or leftover food, farmers now use high-nutrient fish feed that helps fish grow faster and healthier while reducing waste. Jamabo *et al*., (2015) in their study looked at how often African catfish (*Clarias gariepinus*) should be fed to help them grow better and use their feed more efficiently. The researchers tested different feeding schedules to see which one led to the best fish growth and use feed efficiently. We found that feeding at the right times helps fish grow faster, reduces wasted feed, and saves money for farmers. This makes fish farming more profitable and environmentally friendly.

- **Less waste, more food** - Fish is a vital source of protein, but to make aquaculture truly sustainable, we must farm, process, and preserve fish efficiently. Jamabo and Nwaekpe (2017) in their study on the nutritional value and taste of oven-dried and smoked African catfish (*Clarias gariepinus*) has a significant impact by reducing spoilage, ensuring more people have access to nutritious food, and boosting farmers' incomes through value-added processing. By understanding how different preservation methods

affect taste and nutrition, we can provide consumers with healthier, high-quality fish while supporting a thriving market for fish farmers. Better drying and smoking techniques mean fish lasts longer, reducing spoilage and ensuring more people have access to nutritious food. This research helps us embrace a new lifestyle— one where aquaculture is not just about farming fish but about making every step from pond to plate more sustainable, profitable, and delicious.

2. Sustainable use of the natural environment:

My research focus identified how organisms and the environment interact with one another and how those interactions affect the abundance and distribution of various species. These interactions are crucial for culture of shell and finfish species.

In the Niger Delta, *Tympanotonus fuscatus var. fuscatus*, commonly known as Periwinkle, is a key species in both ecological and economic contexts. This shellfish is a staple food in local diets and plays a crucial role in the livelihoods of coastal communities, particularly among women who are actively involved in harvesting, processing, and selling periwinkles in local markets (Ironkwe and Jamabo, 2009). The periwinkle industry supports food security and income generation, making it an integral part of the region's blue economy.

- Environmental threats such as pollution, habitat degradation, and overharvesting pose risks to periwinkle populations, affecting fisher communities' economic stability. Sustainable periwinkle management

is essential, as healthy populations contribute to mangrove ecosystem stability, which in turn supports broader fish stocks. Jamabo (2008) in her study on the ecology of (*Tympanotonus fuscatus var fuscatus*) identified habitat preferences and guide for farming and highlights the role of the species in estuarine and mangrove ecosystems. She emphasizes its importance in nutrient cycling and sediment stabilization, which can inform integrated aquaculture practices (Jamabo, 2011). Traditionally, periwinkles are hand-harvested from wild populations, but farming periwinkles (periwinkle culture) has been explored to enhance sustainability and prevent overexploitation.

- Insights into the growth, reproduction, and mortality rates of *Tympanotonus fuscatus var fuscatus* helped to establish guidelines for harvesting and stock enhancement, preventing overexploitation of the species in its habitat (Jamabo *et al.,* 2009). This research shed light on the importance of the species in maintaining the balance of mangrove ecosystems, highlighting the need for sustainable management practices to ensure the long-term health of these ecosystems. The study on the length-weight relationship of the mangrove prosobranch, *Tympanotonus fuscatus var fuscatus* (Periwinkle) has significant implications for sustainable aquaculture, resource management, and local livelihoods, all of which align with the concept of a new lifestyle (Jamabo *et al.,* (2009a). By studying how periwinkles grow, we have developed better harvesting techniques to prevent overfishing and ensure continuous supply for future

generations. Instead of relying only on wild harvesting, this research promotes controlled periwinkle farming, allowing fishers to grow larger, healthier shellfish while protecting natural stocks.

- Vice Chancellor Sir, my research has played a key role in transforming periwinkle farming into a sustainable and profitable venture for women fishers in the Niger Delta. By organizing women into structured clusters, I have helped them gain economic independence, adopt sustainable harvesting techniques, and access better markets. At Olotunbi, in Andoni local government area, we established women-led shellfish farming clusters to ensure sustainable periwinkle populations. Sustainability is at the core of this initiative. My research helped identify breeding and nursery grounds for periwinkles and other marine life (Plate 4), leading to the adoption of closed-season practices—temporary bans on harvesting to allow natural stock replenishment. This approach has prevented overexploitation and secured a stable source of income for future generations. Additionally, women cooperatives in the community engage in periodic reseeding of periwinkle populations, maintaining a continuous supply while conserving wild stocks.

- Sharing ecological knowledge with local communities fostered sustainable practices and conservation awareness of shellfishes in these communities. Farming periwinkles alongside other shellfish (e.g., oysters, bloody cockles) was done by creating a balanced system where waste from one species benefits another.

Size- selecting harvesting was done to ensure that only mature periwinkles are collected, allowing juveniles to reach reproductive age and maintain population stability. The abundance and size during harvest determine pricing and profitability for fishers, traders, and processors (Plate 5). One of the most significant outcomes of this initiative is economic empowerment. Many of these women previously depended on small-scale, low-income activities.

- Through training and cooperative clusters, they have been able to pool resources, share knowledge, and negotiate better prices, leading to a 30–50% increase in their earnings. This has improved household incomes, food security, and overall quality of life for their families. Another major success has been improving market access. Women's clusters have been connected to formal markets and processing industries, enabling them to sell their periwinkles at higher prices. Training in value addition, such as cleaning, packaging, and processing, has opened new business opportunities, allowing them to earn more from their produce.

- Ultimately, this initiative has had a lasting impact on food security and community development. Stable household incomes have led to better nutrition and access to education for children. The success of this model has also encouraged its replication in other coastal communities, creating a blueprint for women-led aquaculture enterprises across the Niger Delta region.

- ❖ By integrating scientific research with practical community engagement, I have helped turn periwinkle farming into a sustainable, profitable, and environmentally friendly livelihood for women fishers, fostering long-term economic growth and ecological stability.

***Plate 5**. Project site for shellfish development in mangrove swamps in Andoni LGA*
***(Source:** Jamabo, 2012)*

Plate 6*. Shellfish culture in Olotunbi in Andoni LGA*
(Source *Jamabo, 2012)*

Plate 7. *Community engagement at Oyorokoto in Andoni LGA*
(Source: *Jamabo,2012)*

Plate 8. *Some of the products from the new lifestyle* (***Source:*** *Jamabo, 2019)*

- As fish farming grows, it also faces challenges like water shortages, lack of space, pollution, and high costs of feed and equipment. To keep fish farming successful and safe for the environment, we need to use better and more sustainable methods. Embracing this new lifestyle make fish farming more profitable in the long run. My research promotes modern way of farming. Jamabo and Ibim (2010) and Jamabo and Chindah (2010) highlighted the importance of conserving the Niger Delta's brackish water while supporting fisheries. They advocated for sustainable practices that protect aquatic

life, reduce pollution, and preserve natural habitats. This includes responsible water use, eco-friendly feed options, and mangrove-friendly shellfish farming. Socially, this research empowers communities by involving women and youth, encouraging cooperative fish farming, and improving food security (Amachree *et al*., 2018). Economically, it promotes profitable fish farming through advanced techniques like Recirculating Aquaculture Systems (RAS) and value-added fish products. These innovations help reduce overfishing, prevent water pollution, and protect mangroves while ensuring a thriving and sustainable aquaculture industry. Thereby ensuring long-term ecosystem stability and food security. A practical *Example:* In the Niger Delta, controlled fish farming (e.g., cage culture or pond systems with proper waste management) prevents overfishing and allows wild fish populations to recover. *Relatable Scenario:* Instead of using open-net pens that pollute waterways, farmers use biofilters and settling ponds to treat wastewater before releasing it back into rivers.

- Jamabo (2017) in her classic book, Understanding Aquaculture Business, which is a guide or quick reference, provides a comprehensive information on aquaculture principles. She reported that aquaculture aligns with the blue revolution by focusing on business. The title complements ongoing efforts to make aquaculture a cornerstone of the Blue Economy, encouraging innovation and sustainable practices within the industry. A wide audience, including entrepreneurs, investors, policymakers, researchers,

and students, all of whom are key stakeholders in the aquaculture industry have immensely benefited from this book. Entrepreneurs and investors benefit from guidance on market access, profitability, and risk management. Policymakers gain insights into regulatory frameworks and sustainability policies that support the Blue Economy. Researchers and academics use the book to explore emerging trends and data-driven approaches for improving aquaculture practices. Fish farmers and local communities benefit from knowledge on resource management, disease control, and economic empowerment. The book promotes a new, sustainable lifestyle in aquaculture by integrating technology, research, and local knowledge to minimize environmental impact and enhance social equity.

3.1 Key Features of the New Lifestyle:

- **Economic Growth and Job Creation:** Aquaculture is no longer just about subsistence; it's a profitable business with opportunities for exports and job creation.

- **Use of Modern Technologies:** Farmers are adopting Recirculating Aquaculture Systems (RAS**)**, automatic feeding systems, and water quality monitoring to improve efficiency and fish health.

***Plate 9**. Modern fish farm (Source: Jamabo, 2015)*

***Plate 10**: Recirculating aquaculture system (RAS). Source Jamabo, 2014*

- **Sustainable Practices:** Integrated Multi-Trophic Aquaculture (IMTA) combines fish, shellfish, and seaweed farming to recycle nutrients and reduce environmental impact.

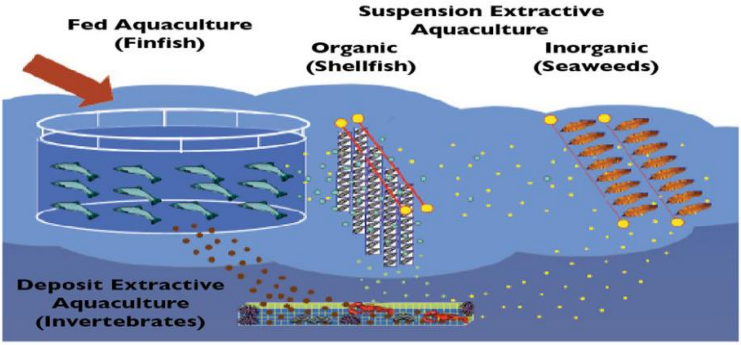

Figure 1. Integrated multi-trophic aquaculture https://www.aquaculturealliance.org/wp-content/uploads/2010/09/

- **Better Feed and Water Management:** High-quality, scientifically formulated fish feed (blue crown, vital fish feed, top fish feed etc) is helping fish grow faster with less waste.

Plate 11. *High-quality fish feeds (**Source** Jamabo, 2022)*

- **Improved Farmer Knowledge and Training:** More farmers now receive training in disease control, breeding, and sustainable practices.

- **Government Support and Policies:** The government is promoting aquaculture through incentives, research support, and investment-friendly policies.

Plate 12*. Disbursement of agricultural inputs to farmers at Egbolom town in Rivers State (Source Jamabo, 2022)*

3.2 Opportunities and Challenges in Nigeria's Aquaculture Sector

Today, aquaculture has become one of the fastest-growing agriculture businesses, turning Nigeria into the second biggest aquaculture producer in Africa (Ogunji and Wuertz, 2023). Nigeria is the leading country in the production of African catfish (*Clarias gariepinus*) and African bony tongue (*Heterotis niloticus*). The success of Nigerian aquaculture is based on production of African catfish *Clarias gariepinus* currently the largest producer in the world and the most popular fish on the local market (Ajayi et al., 2022). In the early 2000s, the explosion of catfish production was a result of the technology transfer of catfish feed production and breeding techniques adopted enabling the mass production of fingerlings (FAO, 2023). The sector has significant opportunities, including high fish demand, job creation, technological advancements, and growing foreign investment. However, challenges such as high feed costs, poor infrastructure, limited

access to finance, and climate change impacts hinder growth. To unlock its full potential, the industry must improve access to quality feed and seed, enhance farmer training, strengthen market access, and implement policies that promote investment and sustainability.

4.0 MY CONTRIBUTIONS TO KNOWLEDGE

Teaching and career development:

Since 2005, I have made impactful contributions to teaching and research at the University of Port Harcourt, mentoring and supervising numerous students at both undergraduate and graduate levels. I have directly contributed to the academic development of hundreds of students, many of whom now hold influential positions in the field of aquaculture and fisheries, contributing to the sector's growth both locally and internationally. As the sector expands, the demand for skilled workforce in fields such as genetics and breeding, nutrition, aquaculture technology, and marine biology will increase. Education initiatives will grow, creating new job opportunities and preparing the next generation for sustainable food production. My research focus spans on various critical areas of aquaculture especially fin and shellfish production. The trust of my research is towards improving the old traditional aquaculture towards the new lifestyle in feed and species efficiency, reducing environmental impact, and promoting economic and social growth in the Niger Delta area.

Research Contributions: Driving Innovation in Aquaculture

My research has significantly advanced species selection and aquaculture innovation, focusing on the biology and ecological requirements of culturable species in freshwater and brackish water environments. Studies on *Oreochromis niloticus* and

Clarias gariepinus identified optimal stocking densities, growth conditions, and feeding behaviors, maximizing yield while ensuring fish health (Jamabo & Keremah, 2009). These findings facilitated the diversification of Nigeria's aquaculture sector by introducing commercially viable species and shaping policies that guide sustainable farming practices (Nwafili & Jamabo, 2018). My work has emphasized adopting a new lifestyle approach that promotes innovation in species selection, including the introduction of *Oreochromis niloticus* and hybrids of *Clarias* and *Heterobranchus bidorsalis*, which have gained widespread consumer acceptance. Research on the food and feeding habits of the African snakehead (*Parachanna obscura*) is crucial for sustainable aquaculture (Jamabo *et al.*, 2013a). By understanding what this fish eats and how it grows best, we can develop eco-friendly ways to farm it without harming natural fish populations or the environment. Further studies on biology, reproduction, and feeding behavior of these species have strengthened aquaculture development in both fresh and brackish water systems (Jamabo & Davids, 2012b; Jamabo and Odika 2015; Jamabo and Maduako 2015). This strategic shift towards sustainable species selection ensures higher fish yields, better resource management, and improved livelihoods for farmers.

The heart of the blue economy lies in the sustainable use of ocean and coastal resources for economic growth, improved livelihoods, and environmental conservation (FAO, 2018). In 2012, I was part of a consultancy team tasked with exploring deep-sea cage fish farming as a synergy between aquaculture and the blue economy. We were mandated to provide data on cultured species, systems, and environments, and to propose strategies for a deep-sea cage aquaculture project in Rivers

State. The project aimed to preserve marine biodiversity, reduce reliance on imports and illegal fishing, enhance food security, generate employment, and produce high-quality fish seed to drive economic growth in coastal communities. With vast open waters in Nigeria's coastal areas—including lakes, reservoirs, rivers, and marine offshore zones—this farming system remains largely untapped. It holds immense potential for the culture of economically valuable species such as croaker and mullets. However, despite its promise, the project did not materialize due to a policy shift by the management of Rivers State Sustainable Development Agency (RSSDA).

Fish Nutrition for Sustainable Aquaculture

Feed costs account for over 70% of aquaculture production expenses, making affordable alternatives essential for industry growth (Jamabo *et al.,* 2013; Jamabo & Dienye, 2016). Our research has explored innovative, cost-effective feed sources such as black soldier fly larvae (BSFL), shrimp meal, and plant-based proteins like soybean and pigeon pea. Notably, BSFL meal has been shown to replace 50-100% of fishmeal in catfish diets without affecting growth, reducing reliance on costly imports and strengthening local feed production (Jamabo *et al.*, 2021a).

For aquaculture to grow sustainably, plant-based feeds are essential. They are an important step towards a more resilient and robust in the sector by lowering prices, improving global food security, and lessening their impact on aquatic ecosytem. However, to overcome nutritional and species-specific issues and guarantee their successful integration across various culture systems, continuous innovation in feed composition and processing is necessary. Studies on some plant-based feed

ingredients including; soyabeans meal, velvet beans (*Mucuna prurients)* seed meal, pigeon pea (*Cajanus cajan)* and Locus bean seed (*Parkia biglobosa*) was investigated as alternative sources of protein in animal feed production (Jamabo and Okoye, 2020; Jamabo *et al.,* 2020; Jamabo *et al*., 2021a, and Jamabo *et al*., 2021b). The studies revealed that plant-based ingredients, which are sourced locally, are more economical and have a stable pricing compared to fish meal and fish oil, which are subject to supply volatility. Plant-based feeds can also be produced at large scale to meet the growing demand for aquaculture, ensuring a consistent supply chain for feed manufacturers. Research in this area is gaining global recognition; our study seeks to review the potentials of alternative sources of protein component in feed industry in Nigeria. However, contributions of our research have changed the narrative from traditional approach to the new lifestyle in the feed industry in the following ways:

Key impacts we have made in transforming the feed industry

- Decreased stress on marine ecosystems: Fish meal and oil, obtained from wild fish, are major components of aquafeeds. Feeds made from plant sources lessen reliance on these resources, preventing overfishing and protecting marine life.

- Transition to alternative feeds: advancements in the use of algae, insect-, and plant-based feeds as well as fermentation-derived proteins reduce forage fish and protect marine habitats in the process.

- Reduced carbon footprint: Compared to the manufacturing of fish meal, the production of plant-based ingredients like soy, maize and peas often has a lower carbon footprint.

- Resource efficiency: Harvesting and processing marine fish for aquafeeds uses more energy and water than growing plants for feed.

- Novel plants sources like algae and duck weed offer highly sustainable and nutrient-rich options for aquaculture species

- Professionalism in aquaculture practices: Many different types of feed in the market, most of which are produced locally. These feeds are cost efficient, good quality and available to fish farmers. Improved production efficiency, less waste, and the best possible use of fish feeds are all results of precision new life style. More investors in the value chain providing employment for millions of people in the industry.

- Growth of mariculture: aquaculture activities like cage culture offer chances to the culture of more fin and shellfishes in coastal and offshore waters. Such project will attract fish landing sites, feed mill, brackish water hatchery facilities and processing and storage plants.

- Production of BSFL meal tailored to meet the specific nutritional needs of different livestock, poultry, and aquaculture species, offering flexibility in feed production.

- As a hypoallergenic protein source, BSFL meal is increasingly used in premium pet food formulations, appealing to eco-conscious pet owners.

Sustaining Aquaculture: Protecting Our Waters for the Future

The rapid decline of fish populations and the degradation of aquatic habitats threaten the future of aquaculture, driving up costs, lowering productivity, and jeopardizing long-term sustainability (Jamabo and Ibim, 2010). However, with smart management, innovation, and conservation efforts, we can ensure that aquaculture remains a reliable source of food and income. Protecting our waters is not just the responsibility of farmers—it requires a collective effort from governments, businesses, and communities. Our research has made it clear: human activities significantly impact aquaculture, but solutions are within reach. By investing in sustainable practices, enforcing strong environmental policies, and fostering collaboration among stakeholders, we can reduce harmful effects and create a thriving, responsible industry. Studies by Jamabo and Ibim (2006) and Wokocha and Jamabo (2021) highlight the environmental risks posed by industrial and agricultural activities and provide critical data for better management strategies. They observed that with the right approach, aquaculture can do more than produce food—it can restore ecosystems, enhance biodiversity, and strengthen global food security. The path to sustainability starts now, and every step we take matters. Embracing this shift means more than just farming fish—it's about restoring nature, improving food security, and creating lasting livelihoods. The time for change is now. Let's build an aquaculture industry that thrives in harmony with the environment.

Empowering Communities Through Sustainable Catfish Farming

Small-scale catfish farming is more than just a business—it is a pathway to economic empowerment, food security, and sustainable livelihoods. Amachree *et al.,* (2018) in their study on the socio-economic characteristics of small-scale catfish farming in Rivers State, highlights its impact on income generation, job creation, and community development. By understanding the challenges and opportunities in the sector, we can support farmers with better access to training, financing, and markets, making fish farming more profitable and sustainable. Strengthening small-scale aquaculture means more families can earn a living, more nutritious fish can reach local markets, and the region can move towards a resilient, self-sufficient food system. This research paves the way for a future where small-scale fish farming is not just a means of survival but a thriving, sustainable enterprise that transforms lives and communities. Ironkwe and Jamabo, 2010 in their study on catfish rearing in five communities in Rivers State, highlights ways to improve fish farming through modern, sustainable practices. It addresses key challenges like poor water quality, high feed costs, and disease outbreaks, offering solutions that help farmers increase yields and profits. By adopting better pond management, biosecurity measures, and eco-friendly farming techniques, fish farmers can boost local economies, create jobs, and enhance food security while protecting the environment. This research supports a new lifestyle—one that makes fish farming more efficient, profitable, and sustainable for future generations.

Leadership and Professional Reflections: My journey in aquaculture leadership has been both progressive and impactful. As National Vice President of the Fisheries Society of Nigeria (FISON) (2010-2014), I played a key role in shaping policies, drafting the FISON Constitution for a National Charter Bill, and organizing national conferences that strengthened Nigeria's aquaculture sector. For six years as Chairman of the FISON State Chapter, I led initiatives that culminated in hosting the 36th Annual General Meeting and National Conference (Garden City 2021) at the University of Port Harcourt. It was an honor to witness our esteemed Vice Chancellor, Professor Owunari Georgewill, receive the title of Honorary Fellow of FISON.

Recognized for my contributions, I was awarded Fellow of the Fisheries Society of Nigeria (Ffs) in 2016. On the international stage, I have represented Nigeria in conferences across multiple continents, integrating global best practices into our national strategies. My impact is evident in economic growth, sustainability, social equity, and long-term policy frameworks that drive the aquaculture industry expansion. Through leadership, advocacy, and technical expertise, I will continue to shape sustainable aquaculture, food security, and economic empowerment in Nigeria and beyond.

Community Service and Economic Empowerment

Vice Chancellor Sir, over the past years, my research and community engagement have significantly contributed to fish and shellfish production in Nigeria, particularly through mentoring young entrepreneurs and promoting sustainable aquaculture practices. By collaborating with NGOs,

government agencies, and international organizations, I have led numerous structured training programs aimed at enhancing productivity, biosecurity, and disease management in fish farming. A notable initiative, the Agric Women Empowerment Programme (AWEP), trained over 50,000 women, empowering them with skills to establish and sustain aquaculture businesses. Many of these farmers have successfully built thriving enterprises, boosting local economies, household incomes, and food security. My research helped make catfish farming in Nigeria a big business. By improving fish breeding, nutrition, and modern farming techniques, I contributed to increasing fish production and creating job opportunities for many people. This has made fish farming more profitable and environmentally friendly. To make an even bigger impact, I personally guided farmers on how to grow their businesses, connected them to funding and buyers, and introduced new fish farming technologies (Jamabo, 2017). These efforts led to better harvests, more jobs, and improved incomes for fish farmers across Nigeria.

In Nigeria, the term “Fadama” is a Hausa name for irrigable land—usually low-lying plains underlaid by shallow aquifers found along major river systems. FADAMA I, which started in 1992, was a pilot agricultural project, designed to offer basic irrigation and other support to farmers in selected states. The World Bank’s Fadama III project, is a follow-up to the Fadama II project, which impacted the lives of rural farmers, raising their incomes by 63 percent in the 35 Nigerian states and the Federal Capital Territory (FCT). The National Fadama Development Project III was an International Development Association (IDA) credit facility assisted project with

confirming sources from the Federal government, State government and Local communities was implemented in six-year period (2004-2009). The objective of the project was to sustainably increase the incomes of fadama land and water resource users to reduce rural poverty, increase food security as well as contribute to the achievement of the Millennium Development Goals (MDGs). The project takes the Community Driven Development (CDD) approach, which places beneficiaries in the driver's seat. Local community members, under the umbrella of Fadama Community Associations (FCAs) and Fadama User Groups (FUGs), oversee the design and implementation of the project and were empowered through skills and capacity-building to improve their livelihoods by increasing income generating activities.
My contributions as a service provider on this project in Rivers State created tangible results in aquaculture development through capacity building, mentorship, and technical support.

Here's how these interventions made a significant difference:

1. Through direct engagement and mentorship programs, farmers were trained to use modern aquaculture techniques in pond management, feeding practices, and processing and value addition. This helped the farmers to conserve water and enables year-round production.

2. Access to funding and enhanced livelihoods: We facilitated access to funding by connecting farmers with World Bank-assisted projects and other financial institutions.

This funding helped farmers to produce more fish, increase food availability and reduce reliance on imported fish. Farm

infrastructure was built for various cooperative groups in many communities in Rivers State. Boreholes were sunk and power generating sets were given to the farmers. Also, a start-up pack of fingerlings, fish feeds and cash were given to run the farms. A good number of these facilities are still functioning. One of such facilities is domiciled in the Department of Fisheries Demonstration Farm, Choba. These interventions contributed to increased food availability, reduced poverty, and improved living standards across rural communities in Rivers State.

As Chairman of the Training Committee under the 7th Vice Chancellor, Prof. J. A. Ajienka, I led a workshop for UniPort host communities, training 150 participants in various agricultural skills. These participants also benefited from the Fadama start up packages. Beyond this, my activities have empowered over 60,000 women and youths with sustainable fish farming skills, enabling them to start successful aquaculture enterprises that drive job creation and local economic growth. These efforts have laid the foundation for a new lifestyle in sustainable aquaculture, helping individuals and communities transition from traditional methods to modern, efficient, and eco-friendly practices. By providing knowledge, resources, and support, this transformation ensures economic prosperity, environmental sustainability, and social integration.

Professional Engagements

Vice Chancellor Sir, I have actively been involved in World aquaculture Society and Pan African Fish and Fisheries Society, attending conferences and presenting papers and also chairing various sessions in such conferences. At every time I have always projected the prospects and opportunities of fin

and shellfish culture in Nigeria. (Jamabo and Ibim, 2009). Jamabo (2010) reported the impact of Aquaculture, sustainable development and poverty alleviation. A case study in the Niger Delta Area, Nigeria. This attracted more investment in feed importation in the aquaculture industry, currently we have over 20 fish feed industries in Nigeria. My participations in such conferences enhanced my expertise, expanded my professional network, and strengthened my contributions to the aquaculture industry. I gained valuable knowledge on sustainable practices, emerging technologies, and industry trends, which have improved my consultancy and mentorship efforts. The conference also facilitated collaborations with global experts, influenced my advocacy for better policies, and enabled me to promote a new lifestyle in aquaculture practices.

Collaboration and Networking

In January 2018, I participated in a staff exchange program as a Visiting Professor at the Lilongwe University of Agriculture and Natural Resources (LUANAR), Malawi, under the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). This program fosters academic collaboration across Eastern, Central, Southern, West, and North Africa, enhancing teaching quality, research, and professional networks among RUFORUM member universities. Through this experience, I: Shared knowledge in Fisheries & Aquaculture with postgraduate students across Africa. Engaged in research collaborations to advance sustainable aquaculture. Built professional networks that continue to drive innovation and partnerships in the field. These connections strengthen global aquaculture education, ensuring knowledge exchange and capacity building for future generations.

Administration and Community Service

I have served in various administrative roles, including Acting Head of the Department of Fisheries and Hall Warden for four years, where I actively mentored and supported students. As coordinator of the departmental research farm, I went beyond supervision—training students in fish farming and entrepreneurship, equipping them with practical skills for self-sufficiency. Additionally, I have delivered leadership and ethics talks during Student Union Week. Served on key university committees, contributing to policy and academic development. Through these roles, I have shaped future professionals, promoted responsible leadership, and fostered innovation in embracing a new lifestyle in aquaculture.

SDGs and the New Lifestyle in Aquaculture

My research has contributed immensely to cardinal UN SDGs like goals 1,2 and 14 by reducing poverty, ensuring food security and protect the aquatic environment.

SDG 1(No Poverty): The new lifestyle (aquaculture) helps reduce poverty in Nigeria by providing jobs, especially in rural and coastal areas. It also reduces pressure on wild fish and increases fish production to meet demand. More people are starting fish farms as small and medium-sized businesses (SMEs). Banks, cooperatives, and NGOs offer loans and grants to help young people start and grow their businesses. Aquaculture provides extra income for people who depend on farming, fishing, or trade, making their earnings more stable. Modern systems, like combining fish farming with agriculture and insect farming for fish feed, create more job opportunities.

Impact of SDG 2 (Zero Hunger): The new lifestyle provides affordable, high-quality protein like tilapia and catfish, helping to reduce hunger and malnutrition. Smoked fish and other

processed products make seafood available all year. Combining fish farming with crop production improves food supply. Fish waste is used as fertilizer, helping crops grow better. Rural farmers receive training and guidance to improve their fish farming skills, making their businesses more productive and sustainable.

Impact of SDG 14 (Life Below Water): Sustainable fish farming helps reduce overfishing and allows wild fish populations to recover. Using modern systems like RAS and biofloc reduces the need to fish from rivers and oceans. Proper waste management in fish farming prevents rivers and coastal waters from becoming polluted. Recycling fish waste into biogas or organic fertilizer helps keep the environment clean. Eco-friendly fish farming protects natural water habitats and prevents harmful species from entering wild fish populations. Research and policies help ensure farmed fish do not harm wild species. Seaweed farming and mangrove protection help reduce carbon dioxide in the air, making fish farming more environmentally friendly and helping to combat climate change.

The Future Impact of the New Lifestyle

Over the next 20 years, sustainable aquaculture will reshape livelihoods, food security, health, and environmental conservation, creating a more resilient and equitable society.

Embracing the new lifestyle will shape life in this way:

- Better food security and nutrition through increased access to affordable protein: Aquaculture will make high-quality, high-protein seafood more affordable and available, particularly for communities in food-insecure areas. This will reduce reliance on wild fish, protect

ocean resources, and ensure a consistent supply of nutritious food.

- Economic development and employment creation: The new lifestyle will create jobs in value chain, such as fish farming and processing, marketing, technology development, and logistics in rural and coastal communities. The economy will be strengthened by the network of related industries, such as retail, transportation, feed production, and equipment manufacturing.

- Increased incomes for farmers and entrepreneurs: Small-scale fish farmers and aquaculture entrepreneurs will have access to new and more profitable markets as the industry grows. With training in technology, business management, and environmental practices, they will be even more prepared to thrive.

- Social stability and a decline in rural-to-urban migration: the new lifestyle will reduce the strain on metropolitan centers and protect families and communities in rural areas because of the economic activities. Communities will become more resilient and live better if the profits from aquaculture businesses are reinvested in local hospitals, schools, and infrastructure.

- Empowerment of women and marginalized groups: The industry will provide women and under-represented groups with opportunities to participate in the economy, especially in jobs such as retail, processing, and farm management. This will reduce gender disparity, increase household income, and empower those who have previously had limited economic opportunities.

- Training and resource access: Governments and organizations are promoting aquaculture as an inclusive industry that provides training and resources to all members of society. Increased output, skill development, and support for sustainable practices will be the impact of such trainings.

- Opportunities for learning and skill development: As the industry grows, there will be a greater need for specialized knowledge in areas like marine biology, aquaculture technology, and environmental science. Education programs will expand, opening up new career paths and equipping the next generation to produce food sustainably.

- Scientific research and innovation: As new lifestyle becomes more popular, more funds will be spent on research and development, which will promote advances in biotechnology, nutrition, and environmental science. More broad scientific advancements will result from this, which will benefit other sectors as well.

- International cooperation and development of policies: The new lifestyle will foster international cooperation and partnerships by tackling global food security, which will enable the creation of cross-border best practices, joint ventures, and information sharing. Lawmakers will progressively draft and execute regulations for sustainable aquaculture operations to guarantee social justice, animal welfare, and environmental standards are prioritized.

Embracing the new lifestyle has the ability to transform society in the future by addressing pressing global concerns including food poverty, economic inequity, public health, and climate

change. By fostering ethical environmental practices, bolstering impoverished communities, and providing sustainable livelihoods, aquaculture will not only improve people's lives but also contribute to the development of a more resilient, just, and sustainable global society.

5.0 FUTURE RESEARCH DIRECTIONS

The future of aquaculture depends on innovation, sustainability, and technological advancement. My research focuses on transforming the industry through alternative feeds, precision farming, biotechnology, and ecosystem-based management. One key area of study is the development of more sustainable feed alternatives, such as microalgae and fermentation-based proteins, which provide eco-friendly, cost-effective nutrition for farmed fish. Another crucial research area is precision aquaculture, which integrates artificial intelligence (AI), the Internet of Things (IoT), and smart monitoring systems to optimize water quality, fish health, and feeding efficiency. Automated feeding technologies and drones will help reduce waste and enhance productivity, while blockchain ensures transparency in seafood supply chains.

Ecosystem-based management also plays a critical role, with restorative aquaculture methods—such as farming seaweed and shellfish—helping to capture carbon, reduce ocean acidification, and protect marine biodiversity. Through continued research and collaboration with policymakers, scientists, and fish farmers, embracing the new lifestyle can evolve into a resilient, high-yield industry that ensures food security while preserving our environment.

Public engagement and education play a vital role in shaping a sustainable future for aquaculture. My research will focus on increasing consumer awareness of ethically farmed seafood by studying market preferences and developing campaigns that promote sustainable choices. Through social media, workshops, and labeling initiatives, consumers can make informed decisions that support responsible aquaculture. Encouraging transparency through certification programs ensures that farmed seafood meets high environmental and ethical standards, ultimately boosting market demand for sustainable products. Workshops and outreach initiatives further bridge the gap between scientific research and real-world farming practices, empowering farmers, policymakers, and consumers to make informed decisions. These efforts contribute to food security, economic development, and environmental sustainability, reinforcing aquaculture as a key driver of progress.

6.0 CONCLUSION

Embracing the new lifestyle is a game-changer for food security. By embracing these modern aquaculture methods, farmers can produce more fish with fewer resources, protect the environment, and create jobs. This approach helps meet the growing demand for seafood while reducing pressure on wild fish populations, ensuring food security for the future. In short, the "new lifestyle" in aquaculture is about using smart, eco-friendly, and profitable methods to make fish farming better for everyone. One of the biggest success stories is commercial catfish farming, which has expanded rapidly in Nigeria. Farmers now have access to large-scale hatcheries, improved feed, and structured markets, boosting production and incomes.

7.0 RECOMMENDATIONS

What can government and institutions do?

1. Invest in Infrastructure: Establish advanced aquaculture facilities such as RAS, hatcheries, and cold storage units to support large-scale production.

2. Promote Research and Development: Prioritize funding for studies on climate-resilient species, alternative feed sources, and innovative farming systems.

3. Capacity Building: Expand nationwide training programs for farmers, with a focus on sustainable practices, market integration, and biosecurity protocols.

4. Strengthen Policy Frameworks: Develop comprehensive policies that regulate aquaculture operations, incentivize private-sector investment, and ensure environmental sustainability.

5. Enhance Market Access: Build robust value chains by improving storage, processing, and transportation infrastructure, while exploring opportunities for export.

6. Encourage Public-Private Partnerships: Foster collaborations between government bodies, research institutions, and industry stakeholders to drive innovation and scale production.

7. Provision of 20 hectares of land for Faculty of Agriculture commercial integrated farm. This project will show case our strength in Fish farm/hatchery complex, feed mill for fish and livestock, poultry, piggery and crop production. Revenue will be generated for our university.

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PHOTO GALARY

Adult of Black soldierfly

Black soldierfly larvae meal (BSLM)

PAFFA conference in Addis-Abab

WAS conference in Adelaide, Australia

Prof. Jamabo on a community visit


Prof Jamabo during a capacity training for community leaders


Mentoring of shellfish fisherfolks Artificial Fish feeds

Disbursement of agricultural inputs to farmers

CITATION ON

PROFESSOR NENE AMABERE JAMABO *Ffs*
B.Sc, M.Phil, Ph.D (RSUST)

Professor Nene Amabere Jamabo was born on 17th September 1967, to the family of Late Chief Morrison Odukososa Williams-Ala and Mrs Evelyn Kalamba Williams of Ala War Canoe House, Agbabiri, Okrika, Rivers State. She had her early primary education at Township school Moscow Road, Port Harcourt and later continued primary 3 to 6 at Army Children School GRA Port Harcourt. She was admitted into the prestigious Federal Government College, Ilorin, Kwara State, where she had her secondary school education. She obtained B.Sc (Hons.) Fisheries, M.Phil and PhD (Aquaculture) respectively, all from the Rivers State University of Science and Technology, now Rivers State University, Port Harcourt, Rivers State.

She joined the services of the University of Port Harcourt as an Assistant Lecturer in 2005 and was promoted to the rank of Professor in 2021. For over a decade, she has been actively engaged in teaching and supervising undergraduate and post graduate students, engaging in research activities, serving in different administrative positions and community works. Professor Jamabo's area of research has endowed her with much respect in her field of specialty. She was a visiting professor at Lilongwe University of Agriculture and Natural Resources, Malawi. Her stay in Malawi was a great experience where she was involved in teaching and supervision of Doctorate and Masters students. She is an Associate Editor of Maxwell Scientific Publication; and has published several works in both local and international peer-reviewed journals.

Her total commitment, hard work and dedication to duty with unassuming leadership qualities is an eloquent testimony to her quality research conducted over the years. Professor Nene has received a number of academic and professional awards. She is a fellow of Fisheries Society of Nigeria and was the treasurer of the Council of Fellows. A member of the World Aquaculture Society and Pan African Fish and Fisheries Association, she has travelled extensively for aquaculture conferences in different countries where she presented papers and also chaired sessions. Her research area includes sustainable aquaculture, shell fish culture and coastal fisheries resources management. She has equally done extensive research on fish seed production for freshwater and brackish water species, and other ecological studies on the aquatic ecosystem of the Niger Delta Area, Nigeria. She is a core

fisheries scholar as evidenced by her qualifications and training.

Professor Nene Jamabo was a former Head of Department of Fisheries, Faculty of Agriculture University of Port Harcourt. She has held several committee and administrative positions in the University, which include: Hall warden, Assistant Hall warden. Also, member of different committees which include Certificate Verification Committee, Nigeria 50th Independence Celebration Committee, Vice Chancellor Christmas Party Committee. 27th And 28th Convocation Committee (Chairman of Entertainment Sub-Committee). Faculty A&PC, Workshop Committee, Welfare Committee, accreditation Committee and farm committee. Coordinator, the Departmental Fish Farm and Departmental Examination Committee. Others are Departmental SIWE Committee, Public lecture/workshop Committee, Handbook Committee, Entrepreneurial Committee, Welfare Committee, accreditation committee and Post Graduate Board. Furthermore, she is an external examiner to some universities and polytechnics in Nigeria.

She joined the Team of Alpha Zomax Consultants Incorporated as a Consultant, Management Consultancy Department. She worked with the Management Consultant Department Personnel in developing strategies, logistics, and implementation of programs for grooming young entrepreneurs to run agribusiness companies and ventures in Nigeria. Professor Jamabo is a practicing farmer and consults for a good number of organizations on aquaculture and sustainable development. Aside conventional lecturing, she has

trained over 60,000 men, women and youths in aquaculture and fish farming business in the Niger Delta Region. She is also involved in career development in secondary schools on the promising agriculturists. Her book "Understanding Aquaculture Business" is a compulsory companion for the fish farmer.

Mr. Vice Chancellor, Sir, distinguished ladies and gentlemen, I present to you an erudite scholar, a prolific writer, a passionate teacher and mentor, a creative and innovative researcher, a distinguished international aquaculturist, an apostle of a new lifestyle, a fighter for the elimination of hunger and poverty alleviation, Professor Nene A. Jamabo to deliver this inaugural lecture titled: EMBRACING THE NEW LIFESTYLE.

Prof. Owunari Abraham Georgewill
Vice Chancellor