

FROM EWE TO OKWEKO: FISH, CULTURE, AND THE FUTURE OF INLAND FISHERIES IN URHOBOLAND

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Abstract

This review examines the transformation of inland fisheries in Urhobo land, located in the western Niger Delta, from historically productive and culturally significant systems centred on traditional fish aggregating structures (*ewe*) to a present-day dependence on imported iced marine fish (*okweko*). Drawing on historical accounts, cultural records, ecological observations, and relevant scientific literature, the paper synthesises evidence on the cultural and nutritional importance of fish, the diversity and productivity of traditional fisheries, and the socio-economic systems they supported. The review identifies multiple drivers of decline, including habitat degradation, occasional chemical fish poisoning, pollution from oil and industrial sources, hydrological alterations, and the erosion of intergenerational knowledge transfer. It discusses the socio-cultural and economic implications of this decline, highlighting its impact on food security, cultural identity, and local resilience. Based on lessons from global experiences, the review outlines integrated strategies for recovery, including habitat rehabilitation, revitalisation of *owe*, scientifically managed stock enhancement, household-level aquaculture using borehole water, market restructuring, and improved governance frameworks. The synthesis underscores that restoration of inland fisheries in Urhobo land is achievable if pursued through coordinated actions that combine environmental management, technological innovation, and

cultural preservation, thereby ensuring nutritional, economic, and cultural sustainability.

Key words: Urhobo, Inland fisheries, *Ewẹ*, *Okweko*, cultural heritage conservation, food security, environmental management, technological innovation

1. Introduction

Urhobo land, in the western section of the Niger Delta, is a territory blessed with an intricate and extensive network of aquatic ecosystems (Aghalino, 2015). These include streams, rivers, creeks, floodplains, and both seasonal and permanent pools. These waters connect villages and clans, sustain farming and fishing activities, and have for generations provided the primary source of animal protein for the people. From Agbon to Okpe, from Ughelli to Abraka, from Arhavwarien to Ogor, and across the twenty-four Urhobo sub kingdoms, these aquatic systems have been central to survival, economic activity, and cultural identity. Fishing in Urhobo land was once an abundant and dependable occupation (Ekeh, 2007). Families drew daily sustenance from the rivers and creeks, and surplus fish was sold in local markets to earn income. In earlier times, fish harvests were so plentiful that they met not only household needs but also served as a source of wealth, with some communities meeting levies and taxes from fishing proceeds. Fishing was not merely an economic activity but a deeply embedded tradition tied to seasonal rhythms. The annual flooding of rivers replenished fish stocks and filled floodplains, creating ideal conditions for capture. Communities awaited these seasons with anticipation, knowing that the rising waters brought both food and opportunity.

Among the many fishing systems that sustained the people, *ewẹ* occupied a place of pride. *Anewẹ* is a traditional fish aggregating structure built in floodplain depressions. It is constructed from forest wood, grass, and other local materials, divided into compartments that provide shelter and breeding space for fish during the flood season. When the waters rise, migrating fish enter these compartments seeking refuge, and over time they establish territories within the structure (Welcomme, 1986). Harvesting was done at the end of the flood season, often on pre announced days that drew the entire community together. In some ancestral ponds, the harvest began only after ritual offerings of yams, plantain, or livestock, symbolising respect for the land and the ancestors. For rural children, *ewẹ* harvest days were as exciting as festivals, with roasted fish and traditional pepper soup shared in abundance. Beyond being a reliable seasonal source of fresh fish, *ewẹ* also carried social significance. In certain communities, the right to participate in the harvest of an ancestral *ewẹ* was linked to recognised membership of that community.

The abundance of fish from *ewẹ* and other capture methods made fresh fish a daily reality in Urhobo diets. In the 1950s and 1960s, many families could count on one hand the number of times they ate meat in a year. Meat, when it appeared, was often in the form of *sabogide* (smoked meat from Northern Nigeria) or bushmeat such as rabbits (*afioto*), grasscutters (*udi*), and antelope (*uzo*). Domestic livestock such as goats and sheep were slaughtered rarely, usually for rituals or sacrifices. The central role of fish is expressed in the saying, “*eroravworięusiđioyen a vwoghare erii*,” meaning “the eyes used in eating starch are not the same as those used in sharing fish. However, this era of abundance has faded. Many *ewẹ* have fallen into disrepair, silted up, or been destroyed by poisoning from

chemicals like Dichloro-Diphenyl-Trichloroethane and *ugbugbu*. With declining wild harvests and a loss of interest among younger generations in maintaining these systems, *ewe* no longer guarantees the seasonal bounty it once did. In its place, many households now depend on *okweko*, the Urhobo name for imported iced marine fish. The word *okweko* is derived from *okuru* meaning cheap and *Eko* meaning Lagos, literally referring to “cheap fish from Lagos.” In the past, *okweko* was regarded as an inferior and low cost substitute for fresh fish from local waters. Today, it has become a common and sometimes costly option because local fish is scarce, marking a complete reversal of its original meaning and status.

The shift from *ewe* to *okweko* is more than a change in diet. It reflects the loss of self-sufficiency, the weakening of cultural traditions, and the decline of local aquatic ecosystems. It is a visible sign of the combined impact of pollution, habitat destruction, destructive fishing methods, upstream dam construction, and climate change (Eriegha and Sam, 2020; Elisha and Felix, 2021). The erosion of traditional fishing knowledge further compounds the problem; as younger generations grow up disconnected from the practices that sustained their communities for centuries. This paper seeks to reawaken the understanding of fisheries as both a nutritional and cultural lifeline for Urhobo land. It documents the historical richness of the fishery, examines the challenges that have led to its decline, and presents strategies to restore productivity. The aim is to ensure that Urhobo waters can once again sustain their people with abundance, while preserving the knowledge, traditions, and pride that have been passed down through generations.

2.The Cultural and Nutritional Importance of Fish in Urhobo Land

Fish has always been more than food in Urhobo land. It is a cultural

anchor, an economic lifeline, and a vital component of nutrition. For generations, the rivers, creeks, and floodplains yielded an abundance that shaped daily life, social customs, and dietary patterns. The abundance from *ewẹ* and other traditional capture systems made fresh fish a routine part of the daily meal, not a luxury. Smoked products such as *ekakadja* were traded in special markets and carried from village to village, creating networks of exchange that strengthened both household diets and local economies.

The nutritional benefits of fish are extensive and scientifically proven. It is a rich source of high quality protein that meets human dietary requirements and compares favourably with eggs, milk, and meat (Tacon and Metian, 2013). Fish provides all the essential amino acids required for growth, tissue repair, and metabolic processes, along with minerals such as calcium, phosphorus, iodine, iron, and selenium that are easily absorbed by the body (Badoni *et al.*, 2021). It is one of the few natural sources of long chain polyunsaturated fatty acids of the omega 3 series, which are essential for brain development in unborn children, mental performance in growing children, and cardiovascular health in adults (Calder, 2014). Regular consumption of fish, particularly oily species, is associated with a reduced risk of heart disease and stroke.

Among the Urhobo, certain species have been favoured for both taste and perceived health benefits. Fish such as *ofe*, *obaghwa*, *ubieri*, and *okpogu* were often chosen for their ability to provide strength and stamina for demanding activities such as farming, paddling canoes, and hunting. Meals combining these fish with starch, plantain, yam, or cassava products created a balance of energy and protein that sustained individuals through physically intense work. The role of fish extended beyond health into social and economic life. Fresh fish from local waters was sold in village markets, exchanged for farm produce, or gifted as a sign of goodwill. In many communities, fishing was a household

enterprise in which men, women, and children each played a role, from constructing and setting gears to processing and marketing the catch. The sound of traders calling “*wa rhe de eri kpokpo*” meaning come and buy fresh fish was part of the rhythm of rural mornings. This deep cultural and nutritional connection to fish explains why its scarcity today is more than an inconvenience. It signals a disruption to community traditions, a loss of dietary quality, and a weakening of the economic linkages that once supported households. The decline of local fish abundance threatens both the health of the people and the continuity of a way of life that has endured for generations.

3. The Traditional Fisheries of Urhobo Land

The waterways of Urhobo land have for centuries supported a diverse and productive fishery shaped by intimate local knowledge of the environment. Species diversity was wide and well known, with each name carrying meaning and identity. Fish such as *ofe*, *obo*, *ubieri*, *ogbagha*, *orhueren*, *erhon*, *omoman*, *okpogu*, *ovworo*, *iku*, and *onya* were recognised by all, from professional fishers to school children. This familiarity with aquatic life was a form of environmental literacy, enabling communities to target species according to seasonal abundance, habitat, and taste preference. Common fish species in Urhobo inland waters are shown in *Figures 1A -1F*. These species, such as *ubieri*, *Omomwa*, *Ofe*, *Erhivivie*, *Eba* and *Ororovwi* have long been central to the local diet and cultural identity.



Figure 1A: Local name: Ubieri
Common name: Snakehead fish
Scientific name: *Parachanna obscura*



Figure 1B:
Local name: Omomwa

Common name:
Nile Squeaker

Scientific name:
Synodontis gambiensis



Figure 1C:
Local name: Ofe

Common name:
Redbelly tilapia

Scientific name:
Tilapia zilli



Figure 1D: Local name: Erhivivie
Common name: African Lung
Scientific name: Protopterus annectens



Figure 1E:

Local name: Eba

Common name:

Trunkfish

Scientific name:

Gymnarchus niloticus



Figure 1F:

Local name: Ororovwi

Scientific name:

Mormyrus rume

Fishing was carried out with a remarkable variety of traditional gears adapted to specific waters and species. Implements such as *uge*, *ariri*, and *obriki* were common in rivers and deep pools, while *ayaro* was favoured by women in shallow floodplain waters. The design and construction of these gears required skill and experience, often involving careful selection of local materials such as raffia, bamboo, and forest creepers. Knowledge of gear-making was an important part of cultural heritage, passed from one generation to the next through practice and apprenticeship. Traditional fishing gears such as *uge*, *ariri*, and *ayaro* are illustrated in *Figures 2A -2F*. Each is adapted to specific habitats and target species, reflecting the ingenuity of local fishers.



Figure 2A:
Local name: Ayaro

Common name:
Basket



Figure 2B:
Local name: Eghore

Common name:
Long Line with Hooks



Figure 2C:
Local name: Ayaro

Common name:
Trammel Net



Figure 2D:
Local name:
Osiphra or Okpogho

Common name:
Pole and line hook



Figure 2E:
Local name: Obrigi

Common name:
Cast Net



Figure 2F:
Local name: Ekide

Common name:
Malian (Gura Trap)

While many traditional gears served specific purposes in different water bodies, none matched the *owẹ* (plural: *ewẹ*) in its ability to concentrate fish in large numbers. This specialised fish aggregating structure, built in floodplain depressions, is dug into existing ponds and reinforced with wooden frames, creating a rectangular system divided into compartments connected by narrow openings. Inside each compartment, specially prepared pieces of concave forest wood called *urho* provided sanctuary for fish. The top was sealed with creeping grasses known as *ephrephre* to prevent damage by floodwaters. During the rainy season, the *owẹ* became completely submerged, serving as a safe refuge for migrating fish. As the floods receded, the fish remained inside, ready for harvest (Figure 3). The

owe complemented other fishing gears by ensuring that even in years of poor catches, communities could rely on its harvest. During the course of this review, both authors participated in the annual harvest of *anewe* in Agbonrorho community, Ethiope East Local Government Area, Delta State (Figure 4). This provided a unique opportunity to directly observe the design, function, and social organisation surrounding the structure. The experience confirmed many aspects described in historical and oral accounts, including the role of seasonal flooding in attracting fish, the communal nature of the harvest, and the accompanying social interactions that reinforce cultural identity (Moses, 1987).



Figure 3. Harvesting of fish from Owe



Figure 4: The authors participating in the harvest of an owẹ in Agbonrorho community

Traditional fishing was not only about catching fish but also about sustaining livelihoods and reinforcing social bonds. Entire families participated, with men often handling the construction and placement of large gears, women processing and marketing the catch, and children assisting in lighter tasks. Markets specialising in fresh and smoked fish created steady trade within and between communities, while fishing expeditions doubled as opportunities for storytelling, knowledge transfer, and social exchange. Today, this traditional system faces severe pressure. The range of species in local waters is shrinking, many gears are no longer made or used, and skills that once defined the identity of fishing communities are at risk of disappearing. These changes have weakened not only the productive capacity of fishery but also its role as a pillar of culture and economy in Urhobo land.

4. From Abundance to Decline

For generations, the inland fisheries of Urhobo land thrived in harmony with the natural cycles of the rivers and floodplains. During the rainy season, rising waters connected streams, ponds, and floodplain depressions, creating vast feeding and breeding grounds for fish. When the dry season returned, the receding waters concentrated fish in accessible areas, allowing communities to harvest mature stock in quantities that met household needs without depleting future generations. This seasonal rhythm ensured a sustainable supply of fresh fish and reinforced the close relationship between people and their aquatic environment.

The first signs of decline were gradual and almost imperceptible. Fishers began noticing that the larger specimens were becoming rare, certain species no longer appeared in familiar fishing grounds, and the volume of harvests was falling. Over time, these changes became more pronounced, driven by multiple and interlinked pressures. Oil spills contaminated riverbanks, creeks, and floodplains, coating vegetation and sediments with residue that choked aquatic life. Industrial discharges and domestic waste polluted waters, reducing oxygen levels and affecting the health of fish populations. Large-scale infrastructure such as dams altered the timing and extent of seasonal flooding, cutting off vital breeding grounds and leaving many water bodies dry during critical reproductive periods. While most fishing continued to rely on traditional gears, occasional incidents of destructive practices emerged. Some unscrupulous individuals poisoned fish using chemicals such as Dichloro Diphenyl Trichloroethane (DDT) or the local toxic plant known as *ugbugbu*. These illegal acts caused indiscriminate kills, wiping out target and non-target species alike, including juveniles and the small aquatic organisms that form the foundation of the food web (Akankali and Elohor, 2022). The impact of such poisoning often persisted for years, leaving affected ponds, creeks, and floodplains unable to recover their former productivity (Elisha and Felix, 2021). The decline of the fishery was also shaped by

social and economic change. Younger members of the community increasingly turned to urban migration, wage employment, and non-fishing livelihoods. This shift reduced the transfer of knowledge about seasonal fishing, gear construction, and species identification from older to younger generations. In many places, communal systems that once managed fishing grounds and regulated access weakened, allowing overuse and neglect. Skills that were once considered central to rural life began to fade, and with them the strong cultural connection to local waters.

It was in this changing environment that *okweko* became a dominant feature of household diets. At first it was a stopgap solution, but over time it became a staple. For many younger people, *okweko* became their primary experience of fish, replacing the taste, variety, and freshness of inland species. The rise of *okweko* has brought its own challenges. While it once served as an affordable alternative, it is no longer cheap. Rising fuel costs, inflation, exchange rate, and fluctuations in supply have pushed prices upward, making it an expensive necessity for many families. Dependence on external supply chains has made communities more vulnerable to market volatility, transport disruptions, and global economic shifts. This transition from reliance on local fisheries to dependence on imported marine fish is more than a change in diet (Liverpool-Tasie *et al.*, 2021). It marks the erosion of a self-sufficient system that once combined environmental stewardship, cultural identity, and economic resilience. Without deliberate efforts to restore the productivity of inland waters and revive traditional fishing knowledge, the gap between Urhobo communities and their rivers will continue to grow, taking with it both a vital source of food and a cornerstone of cultural heritage.

5. Reviving the Future

The recovery of inland fisheries in Urhobo land is not only possible but

achievable if action is taken with determination, cultural pride, and scientific guidance. The natural waterscapes, the deep local knowledge of fishing, and the long-standing traditions that once sustained vibrant fish populations still exist, even though they have been weakened. What is required now is a coordinated effort that restores the environment, strengthens traditional practices, and introduces innovative approaches that make fish production both sustainable and profitable for present and future generations. Restoration must begin with the waters themselves. Many creeks, floodplains, and ponds have become silted, polluted, or cut off from seasonal flows. Clearing blocked channels, rehabilitating floodplain depressions, and re-establishing water connections between rivers and wetlands will restore breeding habitats for fish (Ramachandra *et al.*, 2005). Pollution control is equally urgent. This means stronger community monitoring to prevent oil spills, industrial waste, and chemical dumping, backed by clear agreements between local communities, government agencies, and private operators (Orubu *et al.*, 2004).

Reviving traditional systems such as the *owe* offers a culturally rooted way to boost seasonal fish supply. Communities can rebuild and maintain these structures with both traditional materials and improved designs that increase efficiency while protecting juvenile fish. Revitalising the *owe* also reinforces cultural identity and provides a natural point of intergenerational learning, where younger people can work alongside elders to master construction and harvesting techniques. In addition to traditional methods, stock enhancement offers another promising strategy. In many parts of the world, the release of hatchery-raised juvenile fish into rivers, lakes, and floodplains has resulted in remarkable increases in yield. This approach, if carefully managed, can help replenish depleted stocks, accelerate recovery, and improve harvests without causing ecological imbalance (Ingthamjitr & Sricharoendham, 2016). By combining traditional management with scientifically guided stock enhancement, Urhobo communities can achieve faster and more sustainable results.

Aquaculture must also play a larger role in the future of Urhobo fisheries. Small-scale fish farms using earthen ponds, cages, or tanks can supply fresh fish year-round and reduce pressure on wild stocks (Ovie and Ovie, 2014). Every Urhobo who has a functional borehole in the compound has the potential to rear fish, just as families once kept chickens in their yards. This simple and familiar practice can make fresh fish a regular household product again and, if adopted widely, can collectively increase local supply. Training programmes should target youth and women, providing them with technical skills, starter inputs, and market access. This will not only increase local fish production but also create jobs and keep more of the fish economy within the community.

Education and cultural revival are essential. Schools and community groups can organise fish species identification days, fishing gear exhibitions, and storytelling events that preserve and celebrate local knowledge. Language is part of this revival. Teaching younger generations, the Urhobo names of fish and fishing gears is as important as teaching them to manage water and fish sustainably. Market systems should also be rebalanced in favour of local production. Cooperative fish marketing groups can help fishers and fish farmers secure fair prices, reduce dependence on middlemen, and strengthen bargaining power. Value addition through smoking, drying, and packaging can extend shelf life and increase profits. Local branding of inland fish products can help restore pride and consumer preference for home-sourced fish over imported *okweko*. Finally, the success of any revival effort depends on governance. Local councils, traditional institutions, and fisheries cooperatives must work together to establish clear rules on access, harvest seasons, and gear types. These rules should be enforced fairly, with community participation in monitoring and dispute resolution. Strong governance ensures that restored fisheries do not once again fall into decline.

6. Conclusion and Recommendations

The inland fisheries of Urhobo land have experienced a pronounced transition from the predominance of traditional systems such as *owẹ* to an increasing dependence on imported marine iced fish, locally known as *okweko*. This shift reflects complex ecological, socio-economic, and cultural dynamics that have collectively contributed to the decline of local fish production. Key drivers identified include habitat degradation, episodic chemical fishing by unscrupulous actors, and a diminishing intergenerational transfer of traditional fishing knowledge. Nevertheless, the persistence of indigenous ecological knowledge and the presence of favourable environmental conditions provide a solid foundation for potential recovery. Comparative evidence from global contexts demonstrates that interventions such as habitat restoration, revitalisation of traditional fish aggregating systems, scientifically guided stock enhancement, and strategically structured aquaculture initiatives can yield measurable improvements in both production and sustainability. To support effective management and safeguard cultural heritage, it is recommended that a graduate student from the Department of Fisheries and Aquaculture at Delta State University, Abraka, be supported to conduct in-depth research on *ewẹ*. Such research should rigorously evaluate its ecological productivity, hydrological dynamics, and socio-cultural significance, generating actionable knowledge that informs policy formulation and community-led restoration initiatives. The strategic adaptation of these interventions to the Urhobo context, guided by robust governance, inclusive stakeholder engagement, and market reorientation, offers a viable pathway for the restoration of local fisheries. Recovery efforts should be implemented as an integrated programme that concurrently addresses environmental management, technological innovation, and cultural preservation. By adopting this holistic framework, it is possible to reverse the current trajectory of decline, strengthen food and nutrition security, and enhance the socio-economic resilience of the region.

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