

# TRENDS IN LIVE FISH EXPORT ACTIVITIES IN NIGERIA: 1996 2000

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## ABSTRACT:

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A study of the trends in the export activities of live fish in Nigeria was undertaken between 1996 2000. The major factors relevant to the successful export activities o live fish were found to include: Seasonality (55%) Aesthetics (15%) Fish Shape (9.5%) Detoxification abilities (8%); Airline cargo assent (6.5%) Fish size (4.5%) and fish colour (1.5%).

The live fish export trade activities tough worth at least \$300,000.00 per annum in revenue to Nigeria, was found to still be developing in management terms. It is therefore recommended that the following issues must be addressed urgently to guarantee improvement. Organisation of the exports into a manageable group; formal approval of the Fisheries Quarantine Services at all ports in Nigeria (for certification, export permit, data collection etc); improved ornamental fish stock handling; development of ornamental fish breeding alternatives for target live fish involved (aquaculture); policy imperatives (for the standardization of export packages and labelling to meet market requirements); research into the distribution and breeding characteristics of target ornamental live fish; and improved fund repatriation processes for live fish exporters.

## INTRODUCTION

The exportation of live fish from Nigeria started about thirty five years ago by an American called Mr. Oric who employed Nigerians Mr. Ono and Mr. Chiehibere as General Manager and Manger respectively of the export business. Mr. Jackson, an Urhobo man, father of Mr. William Jackson who is still an exporter today was the main supplier of live fish to Mr. Oric. The trade has since expanded over the year employing thousands of Nigerians. It had however been very difficult to establish a particular trend in the live fish export activities until recently because a lot about the trade had, and is still being shrouded in secrecy. Authethtic and reliable data are therefore readily not available.

A greater percentage of those involved in the export trade activities are uniformed people who are

overly suspicious of any move even by the Federal Government to regulate their activities. However, in 1992, establishment of the Inland Fisheries Decree readily came to the rescue. The decree states that "No person shall export or import a live fish or any other aquatic animal without the permission of the Minister", of Agriculture". It was promulgated to monitor the import and export of live fish and for the protection of endemic species. It thus became relatively easier to gather information on the live fish export trade. The following factors which include seasonality, aesthetics, fish, colour, fish shape, detoxification/medicinal and cosmetic abilities, airline cargo assent, and fish size were found to be relevant to the successful export activities of live fish in Nigeria.

### **SEASONALITY:**

Nigeria is blessed with abundant varieties of ornamental fish. (See Annex I). These are most desired in and exported to Europe (Germany, U.K., Switzerland, Netherlands, the United States of America (Los Angeles, Miami), Asia and the Far East. The most desired fish species however which make any export worth the while (in value ) are Long nose, Butterfly, Reed, Synodontis, and Aba (baby) species. These are however not available all the year round. During the period of study most of the exporters (99.9%) collected fish from the wild usually from freshwater bodies in Lagos, Ondo, Ekiti, Ogun, Edo, Delta, Niger, Akwa Ibom, and Abia States. These fish species are usually found in clean, clear bodies of water,. However, during the rainy season, especially June to September, which also happens to be the breeding season for these species, the fish usually migrate to the shore where there are grasses. They thus hide under the grasses to feed and breed and are rarely seen. It is therefore not easy to come through the shrubs to fish for them. Every year, therefore most of the exporters do not export at all during this season. The cost benefit of exporting other species of fishes such as Tilapia is too low for economic consideration. Also when the matured female fish are caught especially the Longnose and are transported to the port for export they release their eggs into the holding bags, polluting the water. This is due to shock and stress of packaging and movement. This has resulted in high cases of Dead Fish On Arrival (DOA) which is sometimes as high as 100% in some cases. With the same experience over a period of time, the exporters have learnt not to waste any effort and money in exporting female fish during this period. The exporters have also confirmed that consignees are not happy without Longnose during any shipment because of the value and importance of his species. Exporter are however more careful

now than before as a result of the financial losses they have experienced in the past. They are also aware of the need to preserve the brooders for replenishment of the stocks.

### **AESTHETICS:**

There was a general appreciation of the commonly exported fish species from Nigeria. Although many of them are not brightly coloured there is serenity about these fish species, which on its own is an appeal for acceptability. For example, when Reed is put together in a glass tank they can be very beautiful to behold, while the floating. Butterfly singles them out and attract buyers especially.

### **FISH SHAPE:**

Ornamental fish species from Nigeria have distinctive characteristic shapes that make them outstandingly beautiful and appealing. The Longnose is uniquely known as Elephant trunk, through which it feeds and the Butterfly as the Aeroplane fish because of its wings. These shapes are desired as they are most uncommon and unusual in other ornamental species. Longnose is endemic to Nigeria. All over the world, it is only in Nigeria that it is found in commercial quantity and thus is of great economic importance to the country.

### **DETOXIFICATION/MEDICINAL/CONSUMPTIVE ABILITIES:**

Some of the live fish that are desired for are indicators of pollution in water bodies. These fish species especially the longnose are imported for introduction into bodies of water to test the level of pollution in sewage systems in Europe, United States of America and Asia.

Longnose, the most desired ornamental live fish from Nigeria for its beauty and shape is also said to be sought after for its medicinal values in preparing vaccines, and anti-allergic ointments. It has also been reported used in the formulation of body cream/vase lines. There are unconfirmed reports that a number of laboratory trials are on the United States and in Singapore in propagation this fish species because of its varied abilities. It is used in entertainment centres, game resorts as souvenirs, gifts, and for prizes.

#### **AIRLINE CARGO ASSENT:**

The airline cargo assent plays an important role in live fish export-trade in Nigeria. The major airlines involved include Lufthansa, KLM, British Airways, and Swissair and, Air France to limited extent, Luftansa airline played major role during the period of study. When an order is placed for fish, the exporter must have a confirmed booking with the airline before he or she can assure the customer and even make arrangements for the collection from the wild, or to purchase the desired fish species from middlemen or other operators. By the year 2000, the operation of reaching customers became faster. The process has also been enhanced with improved information Technology. As of 1996 most exporters still depended on cable telex, which gave way to fax, and by the end of the study, electronic mail was most commonly used. Please note, should the airlines fail to carry the fish it does not get to the customer quickly, and the surviving rate is usually very low. Shipping frequency established during the period varied from weekly to monthly shipments, every other months, every six months or once a year.

#### **FISH SIZE:**

The range of sizes most desired for the fish species is 4cm at the beginning of the season to 12cm at the

end of the season. Exporting fish species of bigger sizes in each range is not cost effective to the exporter. While the exporter purchases this at a higher local market price, uniform prices are usually paid internationally for all sizes. For bigger sizes, the number of fish species that can be packed per carton is decreased in number, while the cost of packaging materials to be borne by the exporter is also higher. The smaller the fish, the more economical the shipment is to the exporter. For example, more of Glass cat., Debauwi, and Aphosonium can be packed per carton, which converts to more money while saving packing materials, (Please note as a general rule that the longer the distance the less the number of fish packed per carton).

#### **FISH COLOUR:**

Almost all the ornamental fish species in Nigeria are dark coloured except some species of Kribensis, Aba, red Eye, Alestes and the Red Tail Fish. This would have been a serious limiting factor if not for other factors already discussed that have enhanced their worldwide acceptability. The exporters in the year 2000 advocated the use of biotechnology in enhancing the colour of ornamental fish species from Nigeria to put Nigerian exporters on a competitive solid ground like Singapore, Malaysia and Indonesia. During the same year, a few of the exporters showed keen interest not only in how to catch but also in keeping alive some brightly coloured marine fish species such as the mullet for export.

#### **LIMITING FACTORS**

Limiting factors identified during the period of study included: lack of exposure and education of the majority of live fish exporters, differential pricing of the same commodity by different exporters, lack of necessary communication

equipment, lack of infrastructure and appropriate transportation of live fish from remote collection points to the port for export. The fact that fish was being shipped out only through Lagos port was a major limiting factor. Ornamental live fish from some remote parts of the country especially the North s not being exploited yet.

#### **RECOMMENDATIONS:**

##### **1. Organization of the exporters into a manageable group:**

For effective management, control, data and information gathering there is the need for the exporters to come together and form a recognisable association regulated by the laws of the land. Since 1996, the exporters had been trying to form an association, which was yet to be registered by December 2000. There are many emergency exporters (touts) involved in the trade who hijack customers of regular exporters through price war (reduction of prices to undercut others). This led to consignees deliberately cheating on Nigerian exporters through declaration of high DOA, ad outright refusal of payments when touts offer lower prices.

##### **2. Formal Approval of fisheries Quarantine Services at all points in Nigeria.**

During the period of this study the Fisheries Quarantine Services were not officially allowed at any port in Nigeria. The need to establish this service includes the certification of all exports, data collection and to ensure that all exports are covered by export permit, which is the only source of revenue to the Government for the fish being removed from the while by import export at the port the fish health can be expected. There is also the need for a large space to be allocated for fish quarantine at the cargo section of the air port. Exporters can therefore take advantage of this to

quarantine fish collected from the wild before enliffing. During the period of study fish was taken from wild stranghte from export leading to high DOA.

##### **3. Improved Fish Stock Handling:**

There are been indiscriminate removal of life fish for export from the wild which should have a long lasting effect ontheir survival while some of this species do not natural grow big, some are table size.

There is the need for Government presence and control at locations in the different states where these fish species are collected. This is to monitor the fish species for their preservation from extinction and for government to generate revenue by licensing those who catch this fish species from the wild.

##### **4. Development o fish breeding alternative for target live fish:**

There is the need to carry out research into the breeding of the important live fish species for export. The Research Institutes particularly the Nigeria Institute of Freshwater Fisheries Research (NIFFR) should be closely involved and work in collaboration with the live fish exporters for research work in breeding, handling and packaging of ornamental live fish. International liaison with experienced ornamental centres in countries like the federal Department of Fisheries and the Research Institutes should seek Singapore, Japan and the U.S.A. Government and her agencies must encourage manpower development of research scientists and local induction courses to improve the llots of local exporters and breeder. Government should also establish breeding centres where large expanse of land will be made available to interested lie fish exporters to establish research

ponds/holding ponds and to experiment on the breeding of the different species of fish. Such centres, which encourage collaborative cooperation, exist and are well managed in other countries such as Singapore.

**1. Policy imperatives (For the standardization of export packages and labelling):**  
**a Cantons, Styrofoam and labels**

Any serious accidental leakage could lead to a ban on the country's live fish export, according to international laws. It is hereby recommended that:

1. A standard in terms of carton size should be set by Government for use by exporters after consultation on standardization with the exporters. Each company is mandated to produce its own carton, as it's the case with fish shrimp cartons for export by Industrial Fishery Section.

2. The production of Styrofoam, which is an essential packaging material that reduces shock to the fish in transit, should be incorporated into the petrochemical industry of the country. A standardized mould can be developed specially for live fish exporters.

3. There is also the need to standardize the polyethylene package use by all exporters.

4. Labelling: It was found that all exporters depend solely on airline labels for their cargo. Every exporter should be made to have standardized labels on each carton aside airline labels.

**b. Gas:** Only one company BOC gas was identified to supply the oxygen gas for live fish export activities. The prices of different sizes of gas cylinders were however very high hindering the movement (transportation) of fish from the wild and for export. The cylinders are usually very big. With the development of the liquefied natural gas (LNG) in Nigeria a special case for gas in portable cylinders for ease of handling could be put forward for consideration for live fish exporters. This should also be made readily available to remote collection points.

**c. Auxiliary Quarantine/Aquarium Equipments:** These were not readily available in the country. Efforts were made to locally improvise during the period of study with the development of carpet tanks to replace glass tanks for increased water aeration.

**d. Research into the distribution and breeding characteristics of target live fish:** A number of locations have been identified over the years as collection points in different states of the Federation for these ornamental live fish. There is however a need for research into the distribution of these species as there are assumption that untapped resources of these species exist in other part of the country. It has been reported by the exporters that large commercial quantities of untapped different species of Synodontis exist in Lake Chad in Borno State.

Several attempts by local and foreign groups to propagate some of these fish species especially the Longnose failed throughout the period of study. There is the need therefore for urgent research into the breeding characteristics of these ornamental live fishes.

**6. Improved fund repatriation process for live fish exporters:**

The appreciation of the Dollar to the Naira has been a major sustaining factor of the live fish export trade in the last 5 years. Though the export trade is said to be worth at least \$300,000 per annum, a lot of export activities are not recorded, as touts carried them out. Also repatriation of funds cannot be adequately monitored. An unpublished data from an airline puts the total export value of live fish cargo for the months of March - December at over, \$411,000.

Loss of revenue was recorded during the period of study as banks dictate the exchange rate used in converting the proceeds of live fish export. Sometimes the banks refuse opening domiciliary accounts for exporters for official repatriation of their export proceeds. It is hereby recommended that this be taken up with NACCIMA so that the actual contribution of the sector to the Nigerian economy can be decided.

**7. Identification of exportable marine species (Niomr).**

The Nigerian Institute of Oceanography and Marine Research should be empowered and mandated to carry out her statutory role of identifying, breeding and developing exportable

ornamental Marine fish species.

**8. Improvement of fish colours through biotechnology (Research Institutes).**

In order to improve the market acceptability of the country's ornamental fish species the Research Institutes need to improve the colours of these fish through Biotechnology. Research work should involve improving various other market determining parameters such as aesthetics, size, all year round availability etc.

**CONCLUSION:**

It was established during the period of this study that seasonality was the major factor in live fish export activities in Nigeria. A gradual trend towards effective regulation of activity and data collection was established. Government control of the sector increased and became more effective. There was great improvement in cargo assent through improved technology. The exporters became more enlightened and educated, the awareness for openness and for joint effort in regulating their activity also increased. The sector is a potential steady source of foreign exchange earnings for the country if proper strategic management policies are put in place.

Some varieties of ornamental fish found in Nigeria

S/No	Common Names	Scientific Names
1.	Longnose/Elephant nose	<i>Gnathonemus angolensis</i>
2.	Butterfly	<i>Pantodon buchholzi</i>
3.	Shortnose	<i>Marcusenius angolensis</i>
4.	Reed	<i>Calamoichthys calabaricus</i>
5.	Aba fish	<i>Gymnarchus nilohcus</i>
6.	Knife fish	<i>Xenomystus nigri</i>
7.	Kribensis	<i>Pelvicachromis Pulcher</i>
8.	Lung fish	<i>Protopterus annecter</i>
9.	Tiger pike	<i>Hepsetus ode</i>
10.	Debauwie	<i>Etriopiella debauwi</i>
11.	U.D. Cat	<i>Synodontis nigriyentris</i>
12.	Network	<i>Synodontis eupterus</i>
13.	Jewel fish	<i>Hemichromisbimaculatus</i>
14.	Eel	<i>Mastacembelus armatus</i>
15.	Gobby	<i>Dormittator maculates</i>
16.	Aluminium cat	<i>Chryciltus brachynema</i>
17.	Electric Catfish	<i>Malapterurs elecchicus</i>
18.	Mudskipper	<i>Periophthalmus Koulteuri</i>
19.	Puffer	<i>Tetrado n fahaka</i>
20.	Mono	<i>Monodachylus sebae</i>
21.	Snakehead	<i>Chama Striatus</i>
22.	Alestes	<i>Brycinmus longipinus</i>
23.	Occlifer	<i>Synodontis Ocelatus</i>
24.	Dolphin	<i>Mormyrusdeliciosus</i>
25.	Congo tetra	<i>Phenacogramus internitus</i>
26.	Blue fish	<i>Aplochelicthys myersi</i>
27.	Delhazi	<i>Polypterusdelhazi</i>
28.	Roundnose	<i>Petrocephalus macrostoma</i>
29.	Spotted cat	<i>Parachenoglansis macrostoma</i>
30.	Red Eye Arno	<i>Arnoldichthysspilopterus.</i>

