

Impacts of COVID-19 on aquatic food supply chains in Nigeria

The complete overview of survey results can be accessed [here](#).

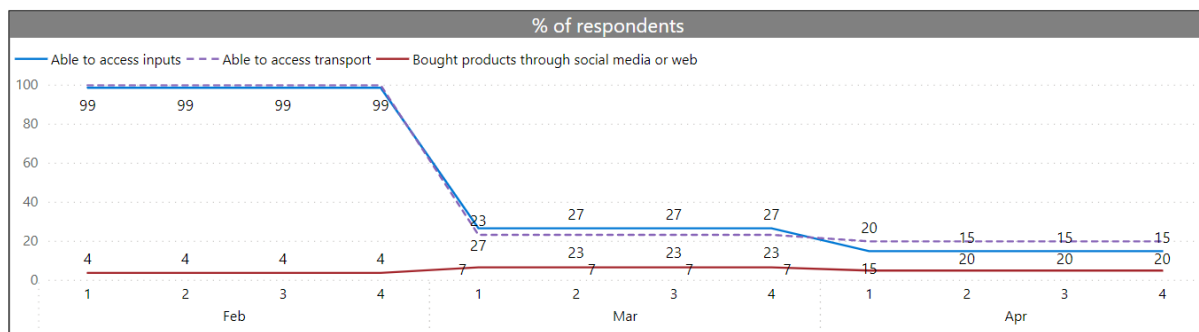
1. Overview

A survey was conducted with fish supply chain actors to assess impacts of COVID-19 on the availability and price of aquatic foods and production inputs. Respondents answered questions about their activity during the months of February, March, and April 2020. The sample was constituted of retailers (n=9), farmers (n=24), fishers (n=11), fish traders (n=6), processors (n=12), feed sellers (n=12), feed mills (n=4) and hatcheries (n=12). The states covered included Oyo (31%), Lagos (20%), Ogun (20%), Ondo (16%) Kwara (6%) and Osun, Bayelsa, Delta, Imo and Nasarawa (6%).

2. Key findings

Between February and March, the percentage of respondents hiring daily male and female labour dropped from 52% to 20% and 22% to 2% respectively. The percentage of respondents trying to buy inputs fell sharply from 87% to 22% between February and April while the percentage of respondents able to access inputs or transport declined from nearly 100% to 15% & 20% (see Figure 1). Similarly, the percentage of respondents trying to sell products dropped from 91% to 22% while the percentage of respondents able to find buyers or access transport for sales declined from nearly 100% to 10% & 15%. The large decline in access to inputs, transportation, and difficulty in finding buyers is likely due to COVID-19 related impacts.

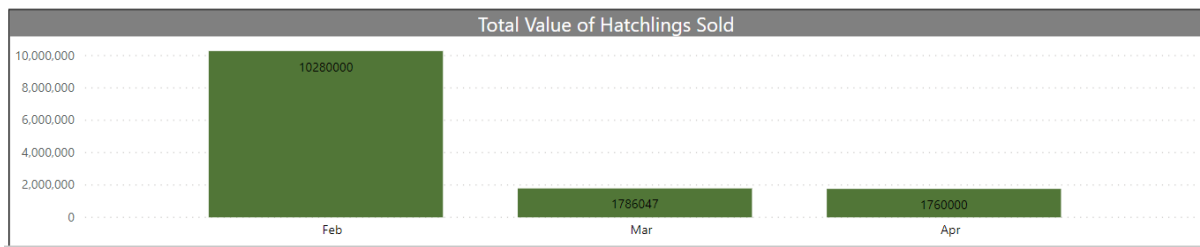
Figure 1. Percentage of respondents able to access inputs, transport and who bought products through social media or web.



Fishers: While 27% of fishers were not operating in February mainly due seasonal reasons, 45% did not go fishing in March and April due to temporary suspensions linked to COVID-19 (42%), restrictions on road transport preventing movement (33%), inability to hire transport (8%), inability to obtain credit for inputs (8%) and low demand (8%). In April, fishers landed 0.17 tons (-19%) and sold 0.15 tons (-17%), resulting in a 26% income decrease compared to March.

Hatcheries: Fifty percent of hatcheries stopped operating in March and April mainly due to COVID-19 temporary suspensions (36%), restrictions on road transport preventing movement (21%), and low demand (14%). There was a steep decrease in the quantity of hatchlings produced (-25%) and hatchling sales revenue (-83%) between February and March/April (see Figure 2) with 59% of sales income derived from Clarias catfish sales and 41% from tilapia sales. Similarly, the quantity of tilapia and catfish fry and fingerlings sold decreased by 83% between February and April.

Figure 2. Total value of hatchlings sold (NGN).



Feed sellers: An increasing number of pelleted feed sellers stopped operating in March (75%) and April (100%) mainly due to COVID-19 related suspensions (41%) and restrictions on roads preventing movement (41%). As a result, feed sales (mainly floating fish feed) halted in April after a 34% increase between February and March.

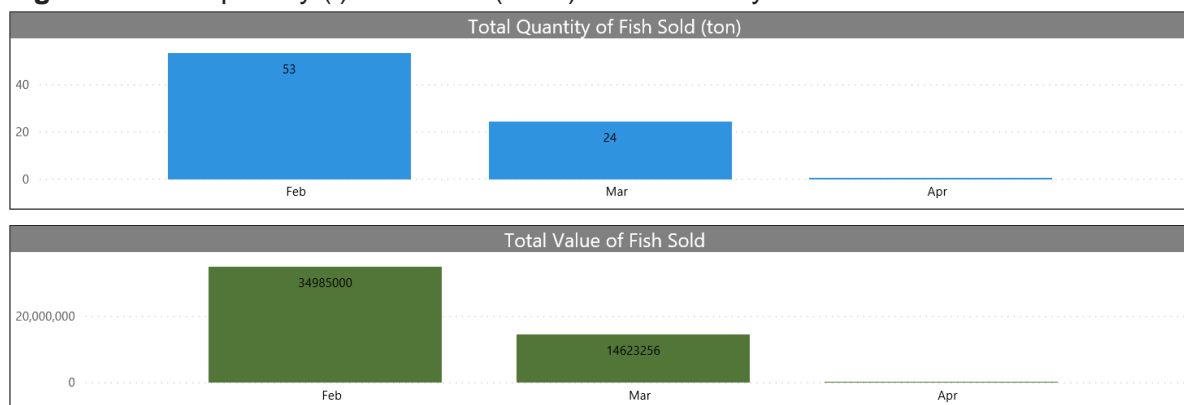
Feed mills: An increasing number of feed mills stopped operating in March (25%) and April (50%) mainly due to restrictions on road transport preventing movement (33%), reduction of production due to low demand (33%) and input suppliers being out of stock (17%). Those remaining opened went from operating 6 days in February to 3 and 2 days in March and April, respectively. The quantity of feed ingredients procured decreased by 1183 tons (-39%) and 848 tons (-46%) in March and April, respectively, while the quantity of feed manufactured decreased by 21 tons (-64%) and 8 tons (-67%). Between February and April, average procurement prices of inputs increased by 4% while average sales prices of manufactured feed increased by 3%.

Farmers: An increasing number of farmers temporarily stopped commercial operations while maintaining their ponds in March (25%) and April (29%) due to low demand (38%), temporary COVID-19 related suspensions (31%) and restrictions on road transport preventing movement (31%). Total operated area also decreased from 23 hectares to around 10 hectares between February and March/April.

The quantity of feed procured by surveyed farms decreased from eight tons to around two tons between February and March/April, causing farmers to spend around four to five times less on floating and sinking feed. Average feed procurement prices per ton went from NGN 417,078 to NGN 351,391 (-16%) between February and April. Surveyed farmers reported they did not procure seeds from external hatcheries in March and April due to some possessing their own hatcheries and not needing additional seed inputs.

The quantity of fish sold by surveyed farms gradually decreased from 53 tons in February to 24 tons and 0.56 tons in March and April (Figure 3), and the farmgate price decreased slightly from NGN 655/kg to NGN 600/kg (-8%). As a result, farmers earned 98% less in April in comparison to February. Catfish was sold in all months while tilapia was sold only in February.

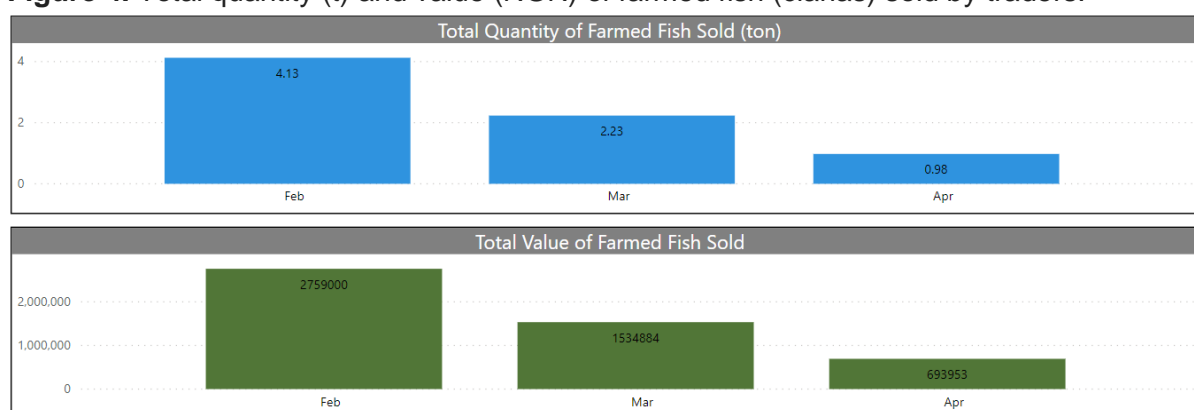
Figure 3. Total quantity (t) and value (NGN) of fish sold by farmers.



Processors: An increasing number of fish smokers stopped operating in March (58%) and April (67%), mainly due to COVID-19 (48%), restrictions on road transport preventing movement (35%) and the inability to hire transport services (9%). Other reasons included input supplier being closed and reduction in production due to low demand. Processors remaining open went from operating five days a week in February to around two days per week in April. While three processors (25%) employed female and male daily labour in February, only one processor employed male laborers in March and April and none employed female laborers. Simultaneously, daily wages dropped from NGN 1,433 to NGN 1,000. A gradual 87% and 90% decrease in the quantity of fish processed and sold was reported between February and April, resulting in processors earning seven times less.

Traders: An increasing number of traders suspended operations in March (33%) and April (50%), due to COVID-19 (40%) and restrictions on road transport preventing movement (60%). From February to April, catfish sales dropped by around 76% (-3.15 tons) while its price gradually increased by 6% (from NGN 669/kg to NGN 710/kg). As a result of the drop in sales, traders' income fell by 75% between February and April (see Figure 4). No freshwater or marine capture fish sales were recorded amongst surveyed traders.

Figure 4. Total quantity (t) and value (NGN) of farmed fish (clarias) sold by traders.



Retailers: The majority of retailers stopped operating in March and April, with all but one suspending their activity due to COVID-19 (42%), restrictions on road transport preventing movement (28%), and inability to hire transport services (24%). Retailers remaining open went from operating five days a week in February to around one day per week in March/April.

Sales plummeted by 99% in March for farmed fish and only 0.02 tons were sold in April amongst surveyed retailers. Catfish contributed to most of the sales in February and March and its price per kilogram increased from NGN 788 to NGN 1000 (+27%). Tilapia prices also increased in March from NGN 1109 to NGN 1500 (+35%) before going down to NGN 1200 in April (-20%). Mixed small freshwater fish sales increased slightly from 9 kg to 45 kg in March before going back down to 27 kg in April with prices decreasing by 40% and 25% between February and March/April. Overall, retailer income dropped by 99% between February and April with farmed fish contributing to the biggest loss in revenue.

3. Recommendations

- Keeping markets open in a safe way is key to safeguarding demand and keep the supply chain from functioning adequately.
- Provide financial support to actors of supply chain who have lost substantial amounts of revenue.
- Safeguard ability to access transportation and movement of merchandise
- There is a need to capacity build to raise awareness of ways to manage production and post-harvest activities in a covid-19 safe manner.