# SPECIAL RELEASE

## Fish Production in Ilocos Norte Went Down in 4<sup>th</sup> Quarter 2018

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Fish production in the Province of Ilocos Norte went down by 14.43 percent from its overall output of 1,932.90 metric tons in 4<sup>th</sup> quarter 2017 to 1,653.98 metric tons in 4<sup>th</sup> quarter 2018. The decline was caused by the decrease in Marine and Inland Municipal with 14.67 percent and 31.84 percent drop, respectively.

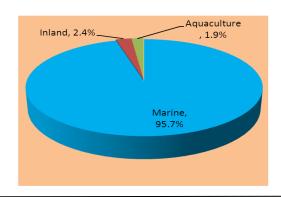
Table 1. Ilocos Norte Fish Production (Mt) by Sector 4<sup>th</sup> Quarter 2017 and 4<sup>th</sup> Quarter 2018

FISHERY	4 <sup>th</sup> Quarter 2017	4 <sup>th</sup> Quarter 2018	Percent Change
TOTAL	1,932.90	1,653.98	(14.43)
Municipal	1,913.53	1,622.66	(15.20)
Marine	1,854.30	1,582.29	(14.67)
Inland	59.23	40.37	(31.84)
Aquaculture	19.37	31.32	61.71

Source: Philippine Statistics Authority, Fisheries Production Survey

The marine sub-sector contributed 95.7 percent to the total fish production of the province in the last Quarter of 2018. The Inland and Aquaculture sub-sectors have shared only 2.4 percent and 1.9 percent, respectively to the total output.

Figure 1: Percentage Distribution of Fishery Production by Sub-sector, 4th Quarter 2018



FISHERY PRODUCTION STATISTICS, 4th QUARTER 2018

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#### **Municipal Fisheries**

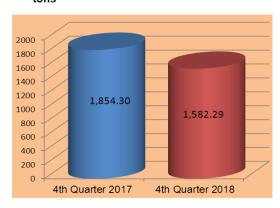
The overall municipal fisheries production in the 4<sup>th</sup> quarter 2018 posted a drop of 15.2 percent. From its output of 1,913.53 metric tons in 4<sup>th</sup> quarter 2017, it went down to 1,622.66 metric tons in the same quarter of 2018. The decrease was caused by marine and inland municipal fisheries.

#### Marine Municipal

Production of Marine Municipal Fisheries posted decrease in the last quarter of Its output dropped from 2018. 1,854.30 metric tons in 4<sup>th</sup> Quarter 2017 to 1,582.29 metric tons (Figure 2). The downward trend was caused by lesser fishing days and trips due to rough seas and limited catch; lesser unloadings of tuna due to presence of commercial foreign and local fishing vessels and transient fishermen; lesser number of Payao's due to damage brought by Typhoon Ompong and some fishermen focused on harvesting of Palay.

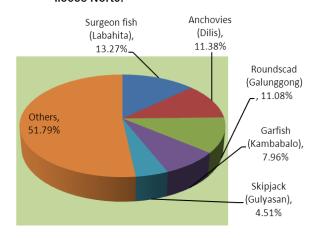
The dominant species in Marine Municipal production are surgeonfish, anchovies, roundscad, garfish and skipjack tuna. Other species that contributed to the production include dolphin fish, bigeyed scad, barracuda, yellowfin tuna and cavalla.

Figure 2: Marine Municipal Production 4th Quarter 2017 and 4th Quarter 2018, in metric tons



Source: Philippine Statistics Authority, Fisheries Production Survey

Figure 3: Percentage Contribution of Top Species to the Total Marine Production, 4th Quarter 2018, llocos Norte.



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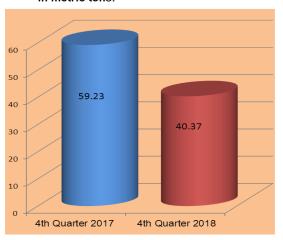
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#### Inland Municipal Fisheries

The production of Inland Municipal Fisheries in 4th Quarter 2018 had decline by 31.84 percent. Its output of about 40.37 metric tons was lower than its production in the same period last year of 59.23 metric tons (Figure 4). The decrease in the overall output was influenced by lesser fishing operations due to minimal catch and flooded fish shelters in previous quarter; some fishermen focused on aquaculture operations and harvesting of palay; fishermen were discouraged to go fishing due to minimal catch and smaller sizes captured.

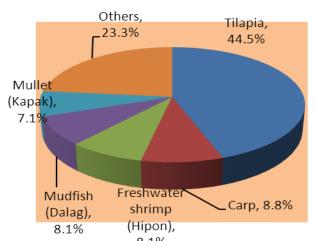
Figure 4: Inland Municipal Production 4th Quarter 2017 and 4th Quarter 2018, in metric tons.



Source: Philippine Statistics Authority, Fisheries Production Survey

Figure 5 shows the percentage contribution of the top species. The top five major catch in Inland Municipal were tilapia with 44.5 percent share to the total production of Inland Fisheries followed by carp 8.8 percent freshwater shrimp with 8.1 percent. Also, mudfish had a share of 8.1 percent while contributed mullet 7.1 percent.

Figure 5: Percentage Contribution of Top Species to the Total Inland Production, 4th Quarter 2018, Ilocos Norte.



Source: Philippine Statistics Authority, Fisheries Production Survey

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#### **Aquaculture**

The Aquaculture production in Ilocos Norte posted an increment of 61.71 percent. From its overall production of 19.37 metric tons in 4<sup>th</sup> quarter 2017, it went up to 31.32 metric tons in 4<sup>th</sup> Quarter of 2018.

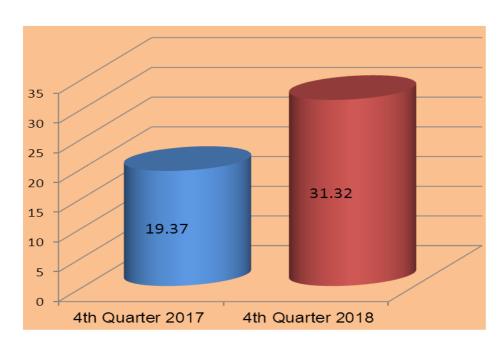
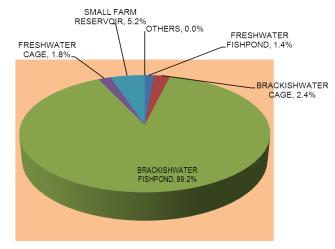


Figure 6: Aquaculture Production 4th Quarter 2017 and 4th Quarter 2018, in metric tons.

The top five Aquaculture farms which are contributory to the increase of production with its percent share are brackishwater fishpond with 89.2 percent, SFR with 5.2 percent, brackishwater fishcage with 2.4 percent, freshwater fishcage with 1.8 percent and freshwater fishpond with 1.4 percent (Figure 7).

Figure 7: Percentage Contribution of Aquaculture by Ecosystem 4th Quarter 2018, Ilocos Norte



Source: Philippine Statistics Authority, Fisheries Production Survey

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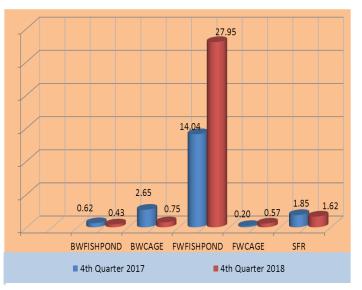
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production The freshwaterwater fishpond increased from 14.04 metric tons in 4<sup>th</sup> quarter 2017 to 27.95 metric tons in the same quarter of 2018. The escalation is due to more stocking rates due to sustained availability of tilapia fingerlings during stocking period dispersed bv Capitol **Express** Assistance (CAPEX) of the Provincial Government of Ilocos Norte and DA-LGU; bigger sizes of tilapia and catfish due to sustained semi-intensive feeding; and more survival rates due to favorable high water level and availability of vegetation as natural foods.

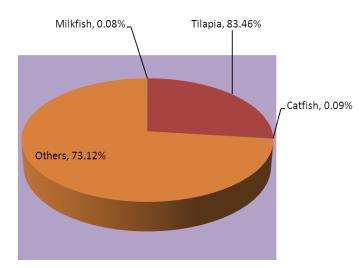
Tilapia dominated the aquaculture production with a share of 83.46 percent. Its production in the 4<sup>th</sup> Quarter 2018 has posted 31.09 metric tons higher than 19.16 metric tons in the same quarter last year. It was followed by catfish with 0.09 percent and milkfish with 0.08 percent.

Figure 8: Aquaculture Farms 4th Quarter 2017 and 4th Quarter 2018, in metric tons.



Source: Philippine Statistics Authority, Fisheries Production Survey

Figure 9: Percentage Contribution of Top Species to the Total Aquaculture Production 4th Quarter 2018, Ilocos Norte



Source: Philippine Statistics Authority, Fisheries Production Survey

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#### **TECHNICAL NOTES**

- The Fisheries Production Survey of the Philippine Statistics Authority (PSA) is divided into four (4) major fisheries surveys. These are the Quarterly Commercial Fisheries Survey (QCFS), Quarterly Municipal Fisheries Survey (QMFS), Quarterly Inland Fisheries Survey (QIFS) and Quarterly Aquaculture Survey (QAqS). The commercial and municipal fisheries surveys aim to provide quarterly data on volume and value of fish production by species, by region and by province. The aquaculture surveys are intended to generate quarterly data on volume and value of cultured species by environment, by type of aquafarm, by region and by province.
- The survey on commercial fisheries production covered 57 provinces and cities.
  For municipal fisheries and aquaculture surveys 81 provinces and cities were covered.
- The sampling frames for the surveys of commercial and municipal fisheries were established in 2000 through a nationwide listing of landing centers (LCs). Updating of the lists was conducted over the years. The design used was a two-stage stratified random sampling with the landing centers as the first-stage sampling units and the fishing boats as the second stage sampling units. The landing centers were stratified based on volume of fish unloaded. The province was the domain of the survey. Inland municipal fisheries included fishing in inland waters such as lakes, rivers, dams, marshes, swamps, etc. Household engaged in inland fishing was the unit of enumeration. For aquaculture survey, the lists of brackishwater fishponds, freshwater fishponds, freshwater fish pens/fish cages, marine fish pens/fish cages, oyster/mussel and seaweed farms by province served as the sampling frames. Updating of list frames for aquaculture was done simultaneously with the landing center during the previous years. With the support from the Bureau of Fisheries and Aquatic Resources (BFAR), Ilocos Region was able to conduct Aquaculture Farm Inventory (AqFI) in 2013. The aquafarms were stratified according to area. Simple random sampling was employed in the selection of sample aquafarms from each stratum.

#### **Concepts and Definitions:**

**Aquaculture** – fishery operation involving all forms of raising and culturing of fish and other fishery species in marine, brackish and fresh water environment. Examples are fishponds, fish pens, fish cages, mussel, oyster, seaweed farms and hatcheries.

**Aquafarm** – the farming facilities used in the culture or propagation of aquatic species including fish, mollusk, crustaceans and aquatic plants for purposes of rearing to enhance production.

**Brackishwater** – mixture of seawater and freshwater with salinity that varies with the tide. Example are estuaries, mangroves and mouths of rivers where seawater enters during high tide.

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**Commercial Fishing** – the catching of fish with the use of fishing boats with a capacity of more than three (3) gross tons for trade, business or profit beyond subsistence or sports fishing.

**Fisheries** – all activities relating to the act or business of fishing, culturing, preserving, processing, marketing, developing, conserving and managing aquatic resources and the fishery areas including the privilege to fish or take aquatic resources thereof (RA 8550).

**Fisheries Sector** – the sector engaged in the production, growing, harvesting, processing, marketing, developing, conserving and managing of aquatic resources and fishing areas.

**Fish Cage** – stationary or floating fish enclosure made of synthetic net wire/bamboo screen or other materials set in the form of inverted mosquito net ("hapa" type) with or without cover with all sides either tied to poles staked to the water bottom or with anchored floats for aquaculture purposes.

**Fishing Gear** – any instrument or device and its accessories utilized in taking fish and other fishery species.

**Fishing Grounds** – areas in any body of water where fish and other aquatic resources congregate and become target of capture.

**Fish Pen** – an artificial enclosure constructed within a body of water for culturing fish and fishery/ aquatic resources made up of bamboo poles closely arranged in an enclosure with wooden materials, screen or nylon netting to prevent escape of fish.

**Fishpond** – a body of water (artificial or natural) where fish and other aquatic products are cultured, raised or cultivated under controlled conditions. This is a land-based type of aquafarm. Note that the setting-up of fish cages in ponds does not make the operation of fish cage and at the same time a fishpond.

**Freshwater** – water without salt or marine origin, such as generally found in lakes, rivers, canals, dams, reservoirs, paddy fields and swamps.

**Inland Municipal Fishing** – the catching of fish, crustaceans, mollusks and all other aquatic animals and plants in inland water like lakes, rivers, dams, marshes, etc. using simple gears and fishing boats some of which are non-motorized with a capacity of three (3) gross tons or less; or fishing not requiring the use of fishing boats.

**Landing Center** – place where the fish catch and other aquatic products are unloaded and traded.

**Municipal Fishing** – covers fishing operation carried out with or without the use of a boat weighing three (3) gross tons or less.

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