



SPECIAL RELEASE

ILOCOS REGION'S AQUACULTURE PRODUCTION INCREASES IN 2022

Date of Release :19 February 2023

Reference No. 2023-016

The overall aquaculture production of the Ilocos Region in 2022 improved by 4.27 percent from 156,188.72 metric tons in 2021 to 162,777.58 metric tons. All the provinces, except Ilocos Norte, posted an output gains.

**Table 1. Volume of Aquaculture Production by Province
Ilocos Region: 2021 and 2022P**

Item	2022P		2021		Growth Rate (%)
	Production In metric tons	Percent Distribution	Production In metric tons	Percent Distribution	
Ilocos Region	162,777.58	100	156,118.72	100	4.27
Ilocos Norte	491.56	0.30	537.74	0.34	(8.59)
Ilocos Sur	1,050.01	0.65	1,017.71	0.65	3.17
La Union	7,675.53	4.72	6,979.41	4.47	9.97
Pangasinan	153,560.48	94.34	147,583.86	94.53	4.05

2022P – Preliminary Result

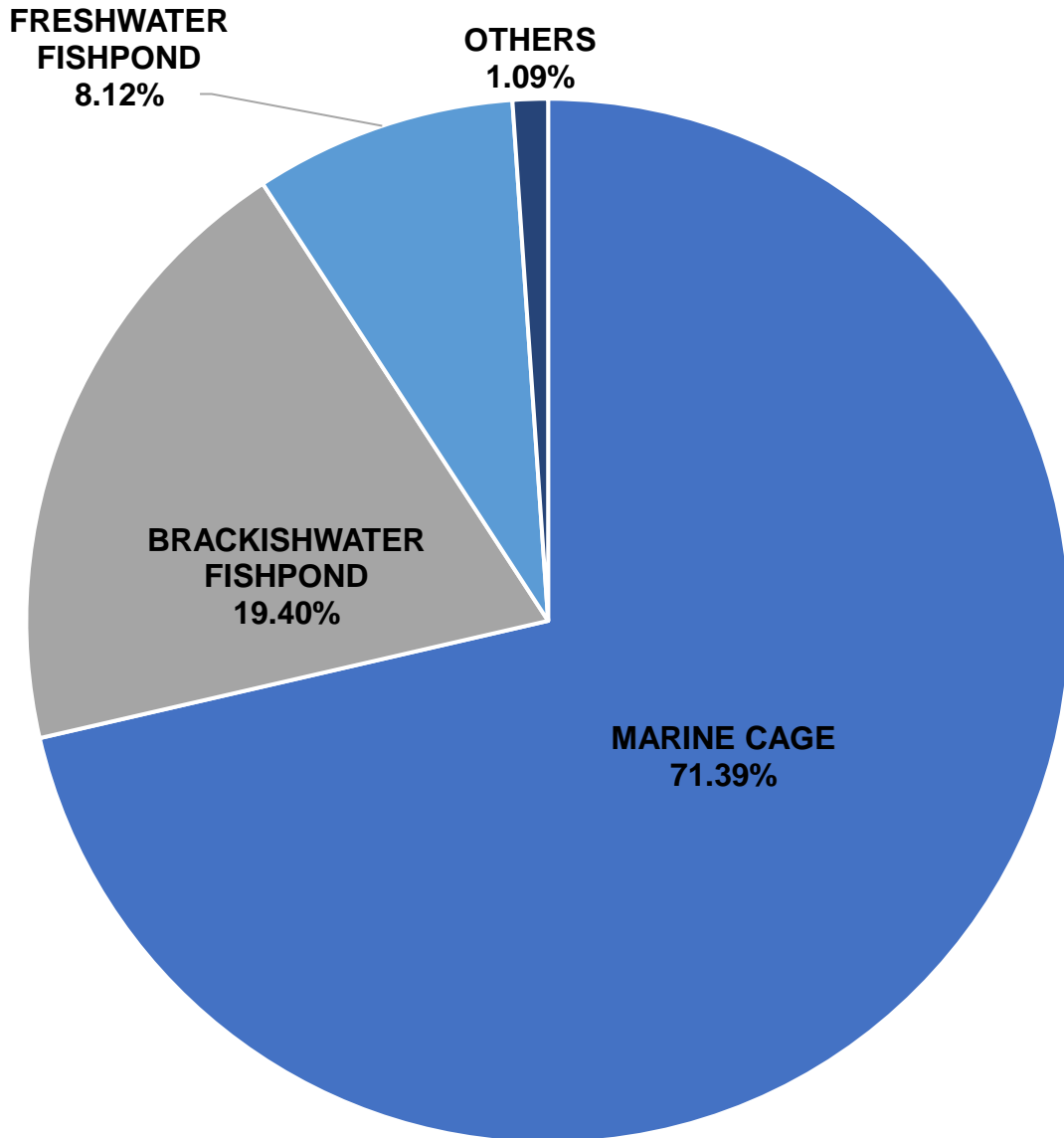
Total may not be exact due to rounding.

Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

Pangasinan contributed most of the aquaculture production of the Ilocos Region, sharing 94.34 percent of the output at 153,560.48 metric tons. La Union followed with 7,675.53 metric tons, equivalent to 4.72 percent of the region's production. Meanwhile, both Ilocos Norte and Ilocos Sur contributed less than one percent of the total output at 0.30 percent and 0.65 percent, respectively.



Figure 1. Percentage Distribution of Aquaculture Production by Environment Ilocos Region: 2022



Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

Across Ilocos Region, the bulk of the harvest in 2022 was from marine cages which contributed 71.39 percent of the aquaculture production in the region. Next were brackishwater fishponds, and freshwater fishponds at 19.40 percent and 8.12 percent, respectively.



**Table 2. Volume of Aquaculture Production by Species
Ilocos Region: 2021 and 2022**

Item	Production (MT)		Growth Rate (%)
	2022P	2021	
Milkfish	143,231.20	137,880.69	3.88
Tilapia	15,415.82	15,433.48	(0.11)
Tiger Prawn	1,068.34	974.13	9.67
Grouper	816.72	2.02	40,331.68
Oyster	540.91	952.81	(43.23)
Mussel	211.56	227.07	(6.83)
Catfish	140.36	5.22	2,588.89
Siganid	90.87	44.98	102.02
Mudfish	16.84	36.23	(53.52)
Mudcrab	15.28	9.42	62.21
Endeavor Prawn	11.30	14.45	(21.80)
White Shrimp	8.12	7.41	9.58
Carp	5.97	7.97	(25.09)
Seaweed	4.28	5.13	(16.57)
Gourami	1.76	1.47	19.73
Freshwater Prawn	0.03	0.00	-
Others	1,198.21	516.24	132.10

2022P – Preliminary Result

Total may not be exact due to rounding.

Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

By fish species, milkfish was the most cultured fish in the Ilocos Region. About 88.00 percent of the region's aquaculture production was milkfish. Tilapia contributed 9.50 percent of the output, while all other species registered at 2.5 percent.

According to the growth rate per species, the harvest of grew significantly at 40,331.68 percent growth. Fish species with more than doubled production from 2021 include catfish and siganid. On the other hand, the fish species with a negative growth rate were tilapia, mussel, seaweed, endeavor prawn, carp and oyster.

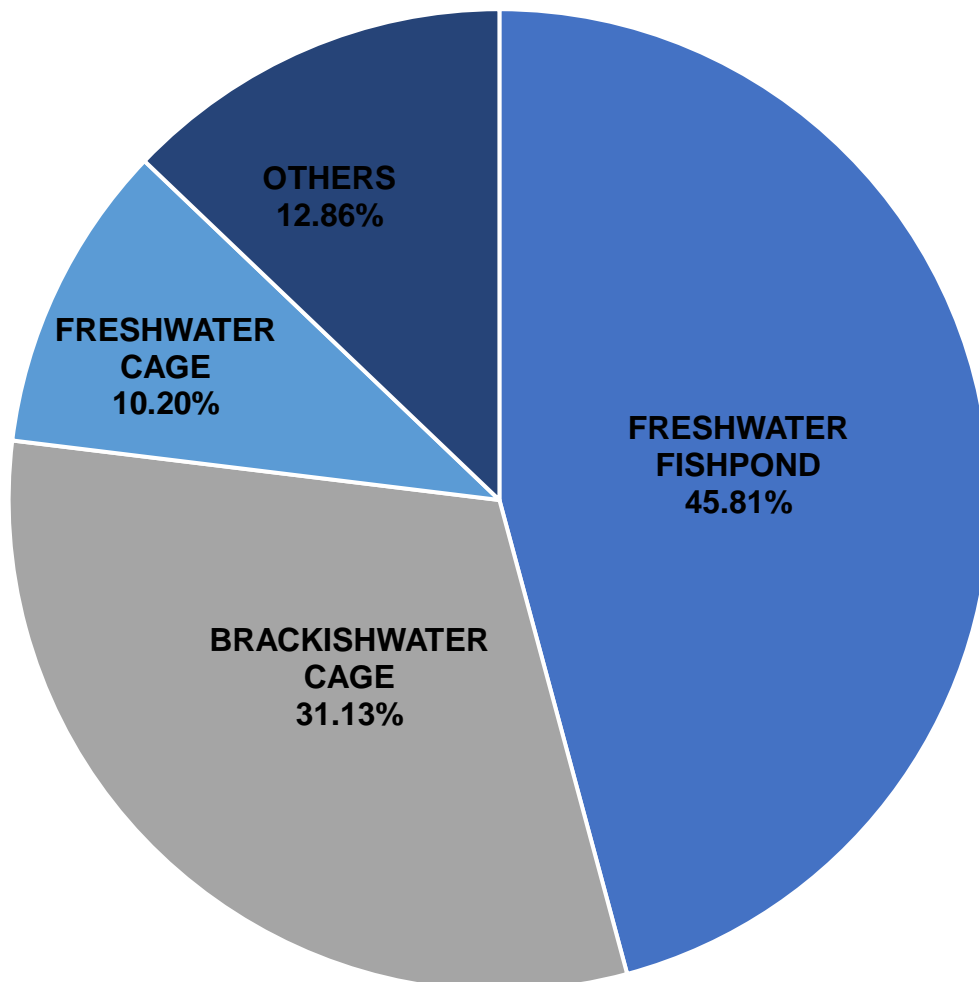


Aquaculture by Province

Ilocos Norte

Predominantly, most of the harvest in Ilocos Norte was from freshwater fishponds. The said aquafarm shared 45.81 percent of the province’s aquaculture production. This was followed by brackishwater cage, and freshwater cage at 31.13 percent and 10.20 percent, respectively. Other aquafarms shared 12.86 of the output.

Figure 2. Percentage Distribution of Aquaculture Production by Environment, Ilocos Norte: 2022



Source: Philippine Statistics Authority, 2022 Fisheries Production Survey



**Table 3. Volume of Aquaculture Production by Species
Ilocos Norte: 2021 and 2022**

Item	Production (MT)		Growth Rate (%)
	2022P	2021	
Tilapia	336.01	509.21	(34.01)
Milkfish	87.09	11.60	650.78
Siganid	33.28	8.85	276.05
Catfish	28.16	4.78	489.12
Oyster	3.49	1.07	226.17
Mudfish	1.25	0.62	101.61
Carp	0.30	0.25	20.00
Mudcrab	0.17	0.08	112.50
Others	1.80	1.14	57.89

2022P – Preliminary Result

Total may not be exact due to rounding.

Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

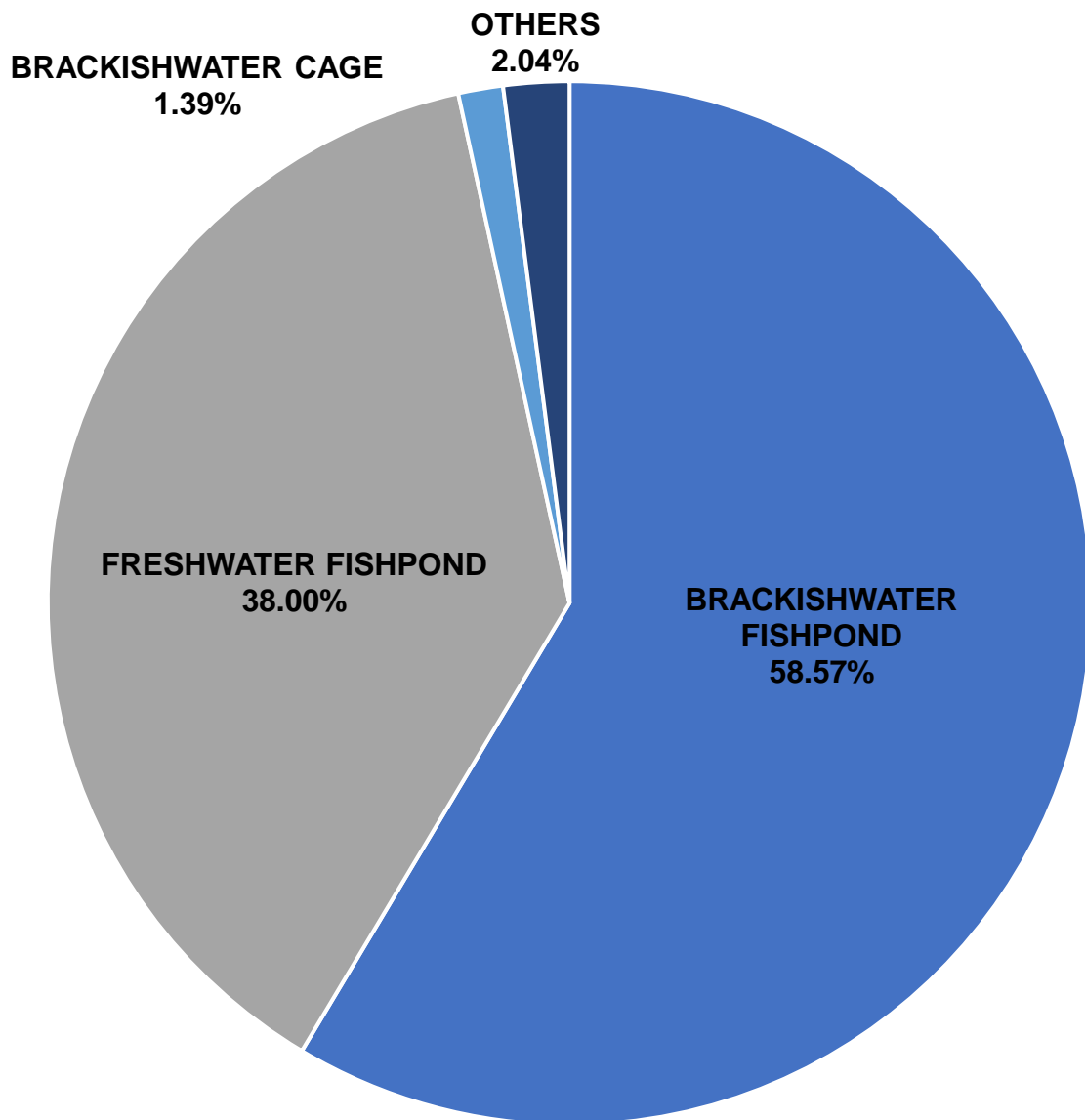
The top species of Ilocos Norte in 2022 were tilapia at 336.01 metric tons, milkfish at 87.09 metric tons, and siganid at 33.28 metric tons. The least were carp and mudcrab with production not more than 0.50 metric tons.

In terms of growth rate, all fish species, except tilapia, registered an increase in production, where milkfish has the highest increase followed by catfish. Tilapia, the top fish species in the province, declined by 34.01 percent in production.



Ilocos Sur

Figure 3. Percentage Distribution of Aquaculture Production by Environment, Ilocos Sur: 2022



Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

Brackishwater fishpond dominated Ilocos Sur's aquaculture production in 2022 and contributed 58.57 percent of the province's output. Freshwater fishpond followed at 38.00 percent. Meanwhile, 1.39 percent of the output was from brackishwater cages. Other aquafarms covered 2.04 percent.

**Table 4. Volume of Aquaculture Production by Species
Ilocos Sur: 2021 and 2022**

Item	Production (MT)		Growth Rate (%)
	2022P	2021	
Tilapia	786.94	731.29	7.61
Milkfish	236.87	251.23	(5.72)
Siganid	3.16	1.87	68.98
Catfish	2.60	0.09	2,788.89
Oyster	1.09	26.29	(95.85)
Tiger Prawn	0.14	0.24	(41.67)
Mudfish	0.09	0.24	(62.50)
Mudcrab	0.08	0.08	0.00
Others	19.04	6.08	213.16

2022P – Preliminary Result

Total may not be exact due to rounding.

Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

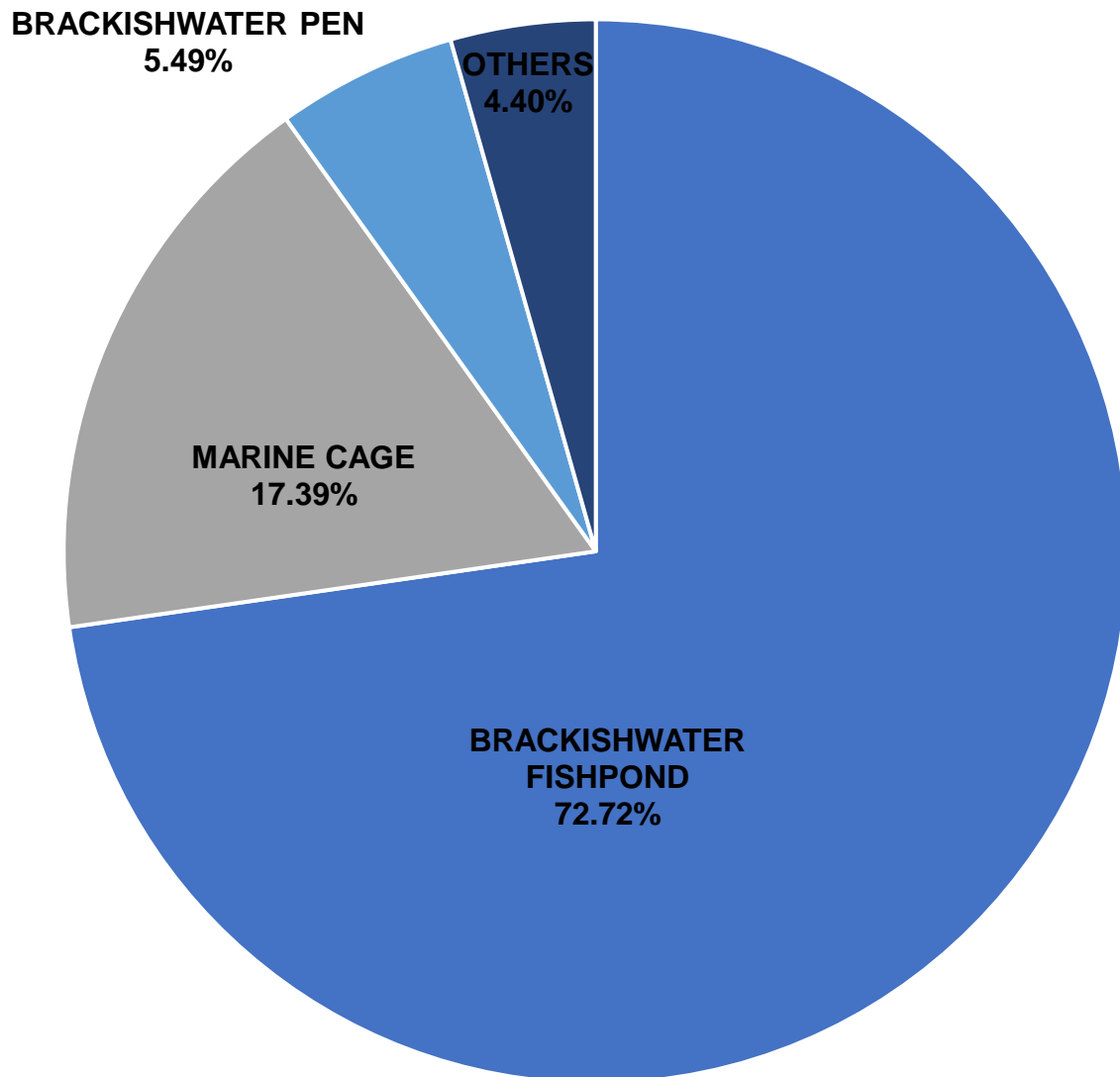
Ilocos Sur’s aquaculture production was composed of 74.95 percent of tilapia, 22.56 percent of milkfish, 0.30 percent of signid, and 2.19 percent of other fish species.

Production of catfish in Ilocos Sur improved from 0.09 metric tons in 2021 to 3.16 metric tons in 2022. Tilapia, siganid, and other fish species posted increases in production, while mudcrab remained stable. However, harvests of oysters, tiger prawns, mudfishes, and milkfishes declined.



La Union

Figure 4. Percentage Distribution of Aquaculture Production by Environment, La Union: 2022



Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

By aquafarm type, 72.72 percent of La Union's aquaculture production was from brackishwater fishponds. Meanwhile, marine cages, and brackishwater pens contributed 17.39 percent, and 5.49 percent, respectively. Other aquafarms produced 4.40 percent of the output.

**Table 5. Volume of Aquaculture Production by Species
La Union: 2021 and 2022**

Item	Production (MT)		Growth Rate (%)
	2022P	2021	
Milkfish	5,254.42	5,987.87	(12.25)
Grouper	811.46	1.55	52,252.26
Tilapia	489.89	461.95	6.05
Tiger Prawn	357.85	1.41	25,279.43
Catfish	109.32	0.07	156,071.43
Oyster	106.40	499.49	(78.70)
Siganid	12.76	0.85	1,401.18
Mudcrab	5.92	1.41	319.86
Mudfish	0.68	0.08	750.00
Endeavor Prawn	0.61	1.93	(68.39)
White Shrimp	0.20	0.61	(67.21)
Seaweed	0.14	0.65	(78.46)
Gourami	-	0.03	No harvest
Others	525.88	22.63	2,223.82

2022P – Preliminary Result

Total may not be exact due to rounding.

Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

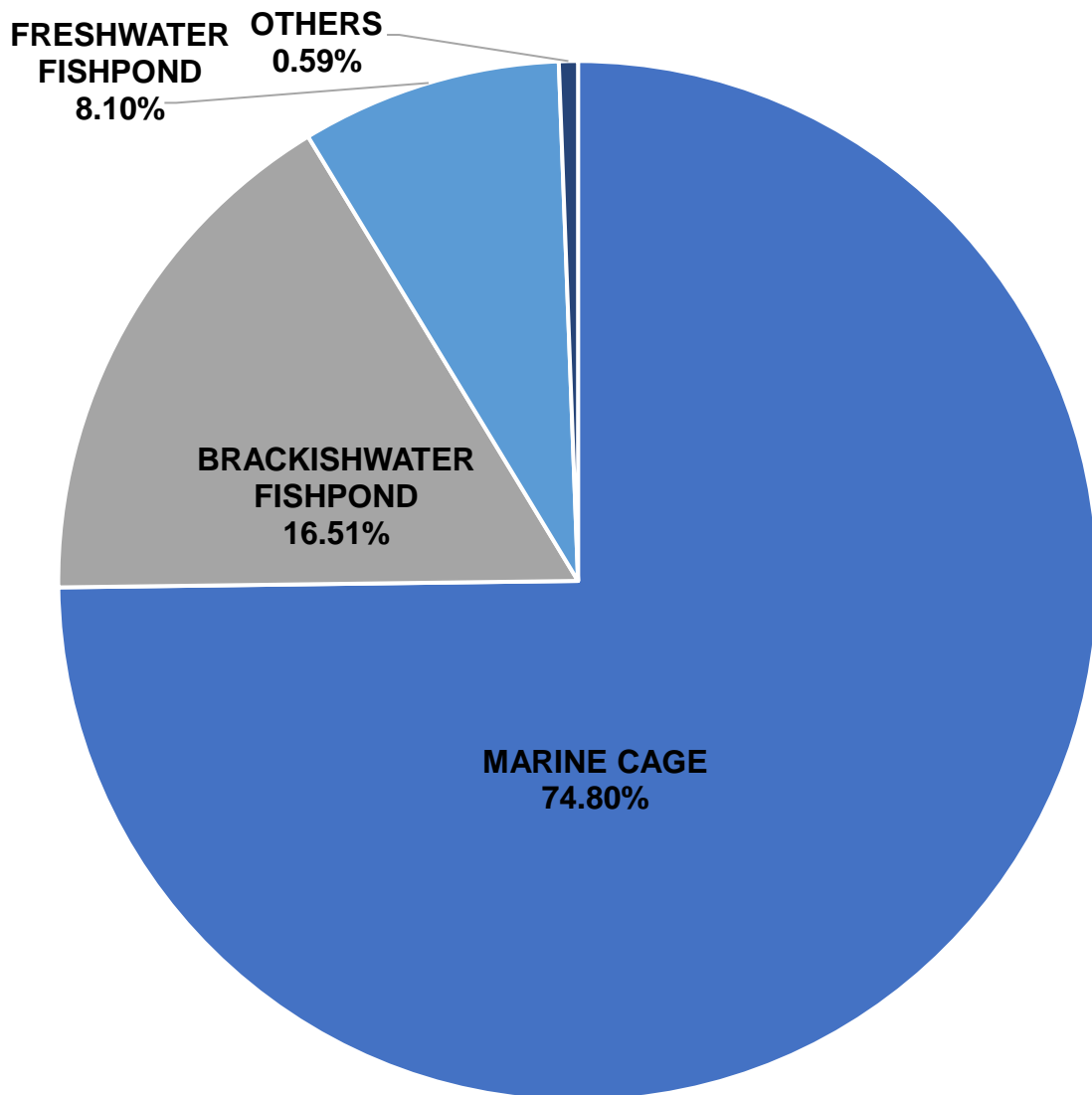
About 68.46 percent of La Union’s aquaculture production was milkfish. Sharing 10.57 percent of the provincial output was grouper. Meanwhile, tilapia contributed 6.38 percent. Other fish species shared 14.59 percent of the output.

Multiple fish species in La Union recorded increases in production from aquaculture namely; catfish, grouper, tiger prawn, and siganid. On the other hand, milkfish posted a decrease in production in 2022 by 12.25 percent. Other identified fish species with decreased production were oyster, seaweed, endeavor prawn, and white shrimp.



Pangasinan

Figure 5. Percentage Distribution of Aquaculture Production by Environment, Pangasinan: 2022



Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

Pangasinan's marine cages contributed 74.80 percent of the province's aquaculture production. Marine cages were followed by brackishwater fishponds, and freshwater fishponds at 16.51 percent, and 8.10 percent, respectively. Other environments produced 0.59 of the province's output.

**Table 6. Volume of Aquaculture Production by Species
Pangasinan: 2021 and 2022**

Item	Production (MT)		Growth Rate (%)
	2022P	2021	
Milkfish	137,652.81	131,629.69	4.58
Tilapia	13,802.98	13,731.02	0.52
Tiger Prawn	710.34	972.41	(26.95)
Oyster	429.94	486.50	(11.63)
Mussel	211.56	227.07	(6.83)
Siganid	41.68	33.41	24.75
Mudfish	14.83	35.29	(57.98)
Endeavor Prawn	10.69	12.51	(14.55)
Mudcrab	9.10	8.97	1.45
White Shrimp	7.92	6.80	16.47
Carp	5.67	7.71	(26.46)
Grouper	5.26	0.33	1,493.94
Seaweed	4.14	4.48	(7.59)
Gourami	1.76	1.40	25.71
Catfish	0.28	0.29	(3.45)
Others	651.52	486.50	33.92

2022P – Preliminary Result

Total may not be exact due to rounding.

Source: Philippine Statistics Authority, 2022 Fisheries Production Survey

The production of aquaculture in Pangasinan was composed of 89.64 percent of milkfish, 8.99 percent of tilapia, 0.46 percent of tiger prawn, and 0.91 percent other fish species.

Production of grouper in 2022 increased from 0.33 metric tons to 5.26 metric tons. Other than grouper, the magnitude of growth rate of other species was less than 100 percent wherein the decrease in mudfish was the highest at 57.98 percent.



TECHNICAL NOTES

The Fisheries Production Survey of the Philippine Statistics Authority (PSA) is divided into four 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 fisheries sector is composed of three (3) subsectors, namely commercial, municipal fisheries, and aquaculture. The commercial and municipal fisheries surveys aim to provide quarterly data on volume and value of fish production by species, region, and province. The aquaculture survey is intended to generate quarterly data on the volume and value of cultured species by environment, by type of aquafarm, by region, and by province.

Concepts and Definitions:

Aquaculture – fishery operation involving all forms of raising and culturing of fish and other fishery species in marine, brackish and freshwater environments. Examples are fishponds, fish pens, fish cages, mussels, oysters, 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 – a mixture of seawater and freshwater with salinity that varies with the tide. Examples are estuaries, mangroves, and mouths of rivers where seawater enters during high tide.

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 aquatic resources and fishing areas.



Fish Cage – refers to a 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 bottom of the water or with anchored floats for aquaculture purposes.

Fish Pen – refers to a fish enclosure made of closely-woven bamboo screens, nylon screens or nets or other materials attached to poles staked at the bottom up to the surface of the lake, river or other shallow bodies of water for the purpose of growing and/or culturing of fish to various sizes in fresh, brackish and marine waters. A fish pen varies in shapes. Its enclosure covers the entire water depth from the water surface down to the bottom.

Fishpond – refers to 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.

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


ATTY. SHEILA O. DE GUZMAN, CPA
Regional Director


JYY/TBO/DAI/CJBP

