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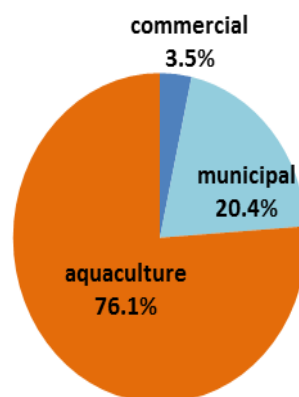
FISH PRODUCTION IN REGION I DECLINED IN FIRST QUARTER 2016

(Results from the Fisheries Production Survey, 1st Quarter 2016)

Fish production in Region I declined by 3.7 percent in 1st quarter 2016. The overall output was posted at 30,310 metric tons, lower than the output in 1st quarter 2015 of about 31,480 metric tons. The negative growth in production was contributed by the municipal sub-sector. All the provinces of the region, except Pangasinan, posted lower production.

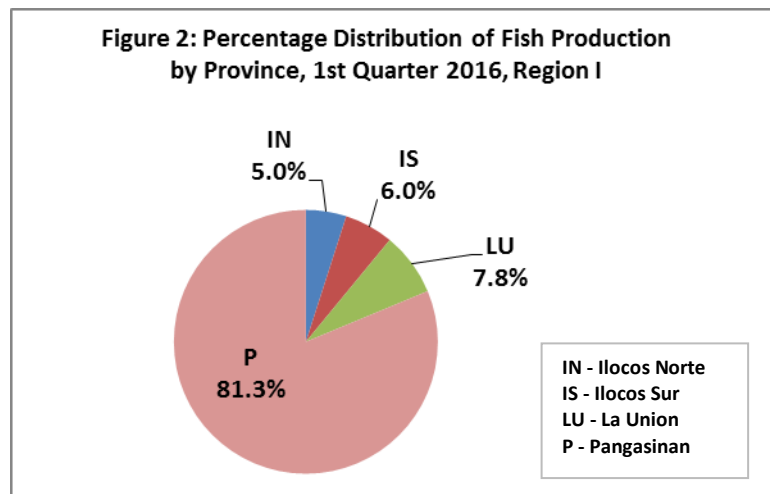
The aquaculture sub-sector contributed 76.1 percent to the total fish production of Region I in 1st quarter 2016. The municipal sub-sector, which comprises the marine and inland municipal fisheries, shared 20.4 percent. Meanwhile, commercial fisheries shared 3.5 percent to the total output.

Figure 1: Percentage Distribution of Fish Production
by Sub-sector, 1st Quarter 2016, Region 1



Source: Philippine Statistics Authority, Fisheries Production Surveys, 1st Quarter 2016

In terms of provincial distribution, the province of Pangasinan shared the bulk of production of about 81.3 percent, with all its sub-sectors posted positive growth in output. However, the overall positive growth in the fisheries of the province did not offset the losses of the other three provinces of the region, thus, the drop in the overall fish production of the region. The total fishery output of the province grew by 4.0 percent from 23,690 metric tons in 1st quarter 2015 to 24,634 metric tons in 1st quarter 2016.



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

The province of La Union, which shared 7.8 percent to the total fish production of Region I, posted negative growth in production during the 1st quarter 2016. Its output in the 1st quarter 2016 was 2,351 metric tons, or 38.7 percent lower than the output in the same period last year. The municipal and aquaculture sub-sectors of the province registered lower growths.

The fish production of Ilocos Sur also registered lower production in 1st quarter 2016 of about 21.3 percent. Its production during the period was 1,820 metric tons, lower than the output of about 2,313 metric tons recorded in 1st quarter 2015. The commercial and municipal sub-sectors of the province posted decreases in output. Ilocos Sur contributed 6.0 percent to the total fishery production of Region 1.

The province of Ilocos Norte, which shared 5.0 percent to the total fish production in the region, registered lower overall fish production in 1st quarter 2016 due to the decreased output of its municipal fisheries sub-sector. Its total output of 1,505 metric tons was 8.3 percent lower than its output in 1st quarter 2015 of about 1,641 metric tons.

Table 1: Fish Production by Province and Sector, 1st Quarter 2016 and 1st Quarter 2015, Region I

Prov	Production (MT)		% Change
	1st Quarter 2016	1st Quarter 2015	
REGION I	30,310	31,480	(3.7)
Ilocos Norte	1,505	1,641	(8.3)
Ilocos Sur	1,820	2,313	(21.3)
La Union	2,351	3,836	(38.7)
Pangasinan	24,634	23,690	4.0
COMMERCIAL	1,049	824	27.4
Ilocos Sur	65	74	(12.1)
La Union	261	259	0.8
Pangasinan	724	491	47.3
MUNICIPAL	6,188	7,694	(19.6)
Ilocos Norte	1,204	1,374	(12.4)
Ilocos Sur	1,492	1,993	(25.1)
La Union	408	1,663	(75.5)
Pangasinan	3,084	2,665	15.7
AQUACULTURE	23,073	22,962	0.5
Ilocos Norte	301	267	12.5
Ilocos Sur	263	247	6.6
La Union	1,683	1,914	(12.1)
Pangasinan	20,826	20,534	1.4

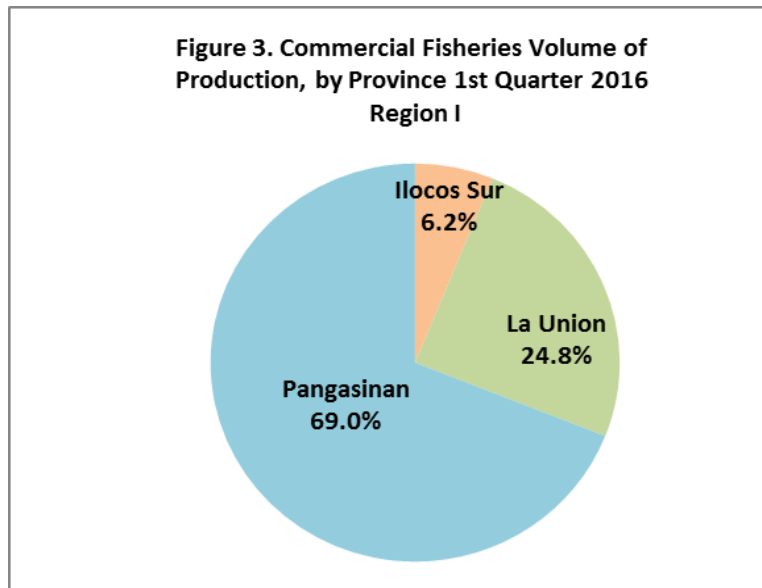
Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

Commercial Fisheries

Commercial fisheries volume of production of Region 1 registered positive growth in the first quarter 2016. Production increased by 27.4 percent from its output in first quarter 2015 of 824 metric tons to 1,049 metric tons this year. This was contributed by the provinces of La Union and Pangasinan. The higher production was attributed to the presence of more school of fish, harvest of more payaos and artificial reefs, increased number of fishing days due to good weather condition, and bigger sizes of catch.

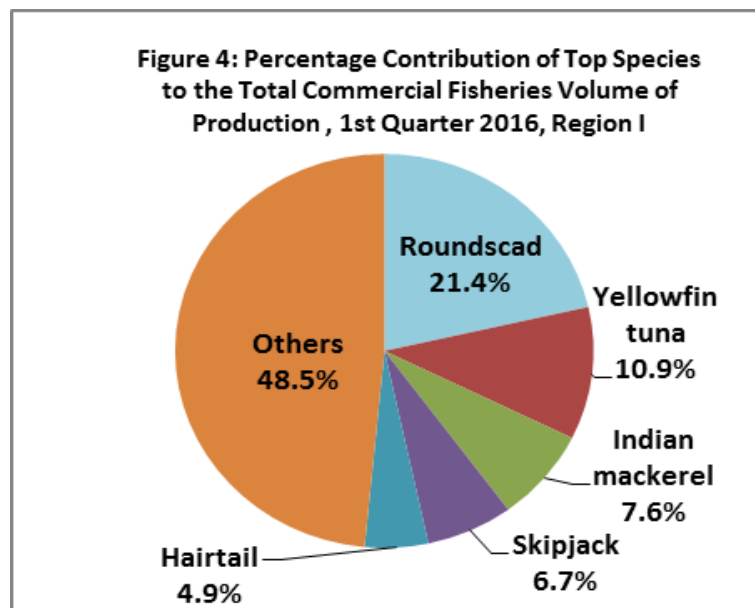
Meanwhile, volume of fish production of Ilocos Sur decreased by 12.1 percent from its output in first quarter 2015 of about 74 metric tons. Lesser payaos harvested, and lesser number of fishing operations due to long period of amihan were the factors that contributed to the negative growth in output.

In terms of provincial shares, Pangasinan accounted for 69.0 percent of the region's commercial fish production, followed by La Union, 24.8 percent share, and Ilocos Sur, 6.2 percent share.



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

The top five major catch in the region during the first quarter 2016 were Roundscad, Yellowfin tuna, Indian Mackerel, Skipjack, and Hairtail.



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

Municipal Fisheries

The overall municipal fisheries production of Region I in the 1st quarter of 2016 went down by 19.6 percent. Overall production was posted at 6,188 metric tons, lower than the output in 1st quarter 2015 of about 7,694 metric tons.

Marine Municipal

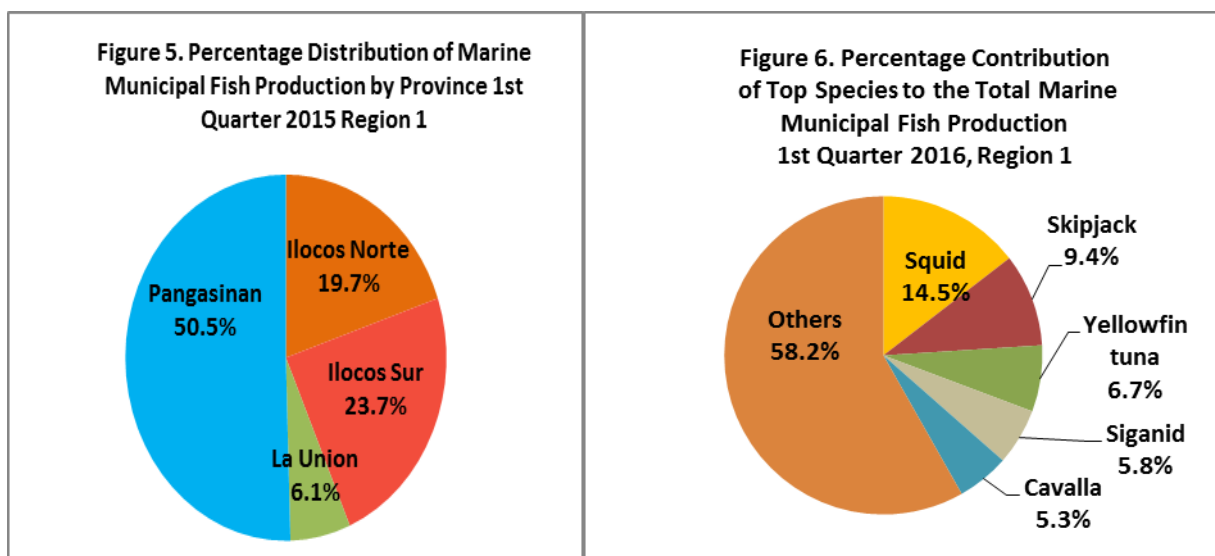
Production of Marine Municipal Fishery in Region 1 posted negative growth during the first quarter 2016. Its output went down by 20.2 percent from its output in the same quarter last year of about 7,293 metric tons to 5,823 metric tons this year. The decrement in production was contributed by all the provinces of the region, except Pangasinan. There were lesser number of fishing operations due to rough seas, presence of transient fishermen and commercial fishing vessels, lesser appearance due to hot weather that fishes seek refuge at deeper waters, and lesser payaos harvested.

Table 2. Marine Municipal Fisheries Volume of Production, 1st Quarter 2016 and 1st Quarter 2015, Region 1

Region/Province	Production (MT)		% Change
	1st Quarter 2016	1st Quarter 2015	
Region 1	5,823	7,293	(20.2)
Ilocos Norte	1,150	1,320	(12.9)
Ilocos Sur	1,382	1,855	(25.5)
La Union	353	1,527	(76.9)
Pangasinan	2,938	2,591	13.4

Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

The province of Pangasinan contributed 50.5 percent of the region's marine municipal fish catch for the first quarter 2016, followed by Ilocos Sur with 23.7 percent share, Ilocos Norte, 19.7 percent share, and La Union, 6.1 percent. Squid, Skipjack, Yellowfin tuna, Siganid, and Cavalla were the dominant catch in the region during the first quarter 2016.



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

Inland Municipal Fisheries

Production of Inland Municipal Fishery in Region I decreased during the first quarter 2016. Its output of about 365 metric tons was 9.0 percent lower than its production in the same quarter last year. This was contributed by Ilocos Sur and La Union. The negative growth in overall output was attributed to smaller sizes of catch, and insufficient water in some fishing grounds.

Table 3. Inland Municipal Fisheries Volume of Production, 1st Quarter and 1st Quarter 2015, Region I

Region/Province	Production (MT)		% Change
	1st Quarter 2016	1st Quarter 2015	
Region 1	365	401	(9.0)
Ilocos Norte	54	54	0.8
Ilocos Sur	110	138	(20.3)
La Union	55	136	(59.7)
Pangasinan	146	74	97.8

Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

By province, Pangasinan ranked first in the production of Inland municipal fishery during the first quarter 2016 with 40.1 percent share, Ilocos Sur 30.1 percent share, La Union with 15.0 percent, and Ilocos Norte with 14.8 percent. The top five major catch in the region during the first quarter 2016 were Tilapia, Carp, Endeavor prawn, Freshwater (Fw) goby, and Freshwater (Fw) crab.

Figure 7. Percentage Distribution of Inland Municipal Fish Volume of Production by Province, 1st Quarter 2016, Region 1

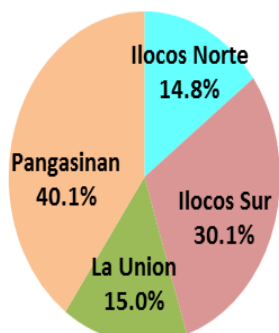
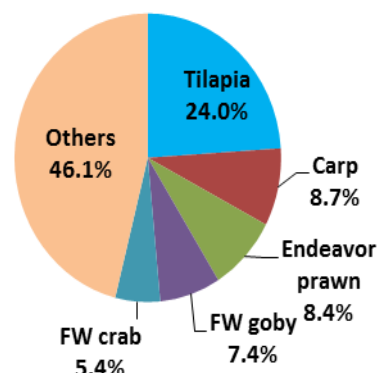


Figure 8. Percentage Contribution of Top Species to the Total Inland Municipal Fisheries Volume of Production, 1st Quarter 2016, Region 1



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

Aquaculture

Aquaculture production of Region 1 registered positive growth of 0.5 percent during the first quarter 2016. From its output of 22,961.97 metric tons in first quarter 2015, it grew to 23,072.91 metric tons this first quarter 2016. All the provinces of Region I posted output gains, except La Union. The overall increase in production was attributed to higher survival rate, and increased stocking rate due to availability of fingerlings, and absence of flood during the stocking period.

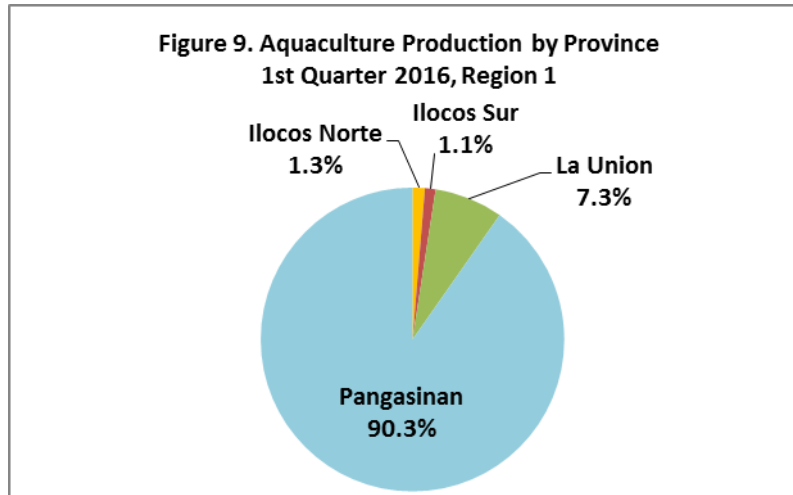
Table 4. Aquaculture Production, 1st Quarter 2016 and 1st Quarter 2015

Region I

Region/Province	Production (MT)		% Change
	Jan-Mar 2016	Jan-Mar 2015	
Region 1	23,072.91	22,961.97	0.5
Ilocos Norte	300.82	267.43	12.5
Ilocos Sur	263.14	246.83	6.6
La Union	1,683.23	1,914.14	(12.1)
Pangasinan	20,825.72	20,533.57	1.4

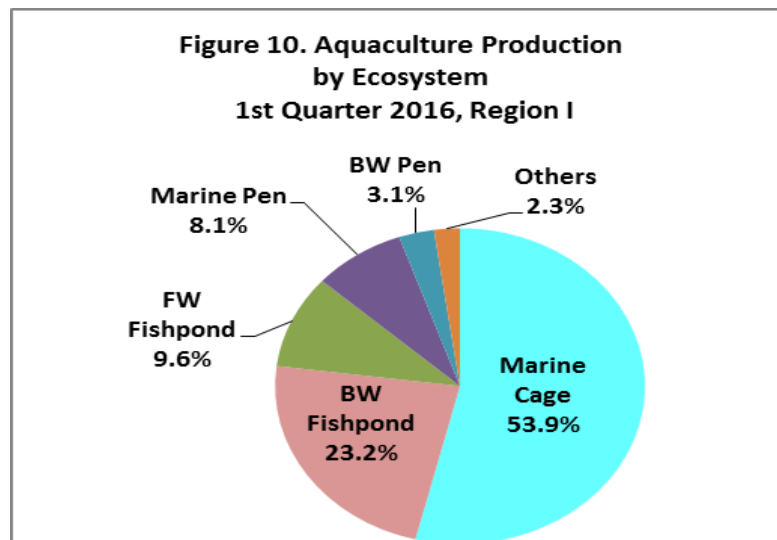
Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

The province of Pangasinan shared the bulk of aquaculture production with 90.3 percent. The remaining 9.7 percent was shared by La Union, Ilocos Norte, and Ilocos Sur.



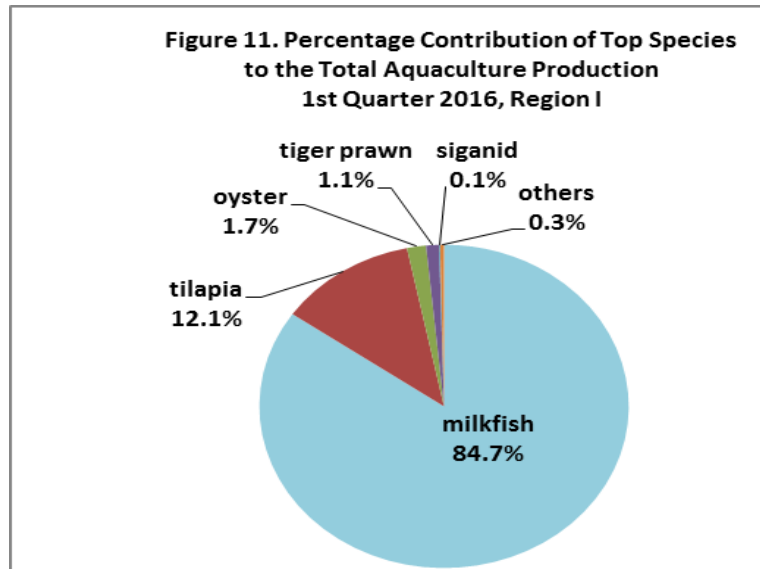
Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

By culture type, aquaculture in Region 1 was dominated by Marine cages which accounted for 53.9 percent of the total production. Production in this culture system increased by 1.42 percent due to availability of fingerlings and improved formulation of feeds. Early harvest from this ecosystem was also observed in time for the Lenten season. It was followed by Brackishwater (BW) fishpond with 23.2 percent share, Freshwater (FW) pen (9.6 percent), Marine pen (8.1 percent), and Brackishwater (BW) pen (3.1 percent).



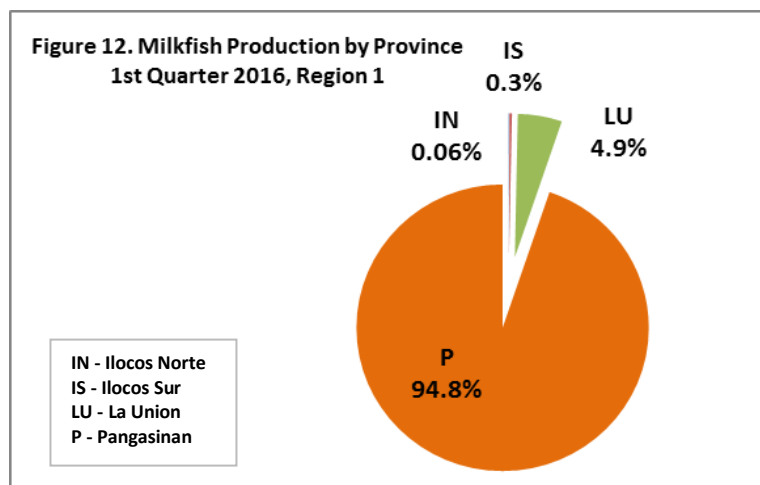
Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

Milkfish dominated the aquaculture production of Region 1 with a share of 84.7 percent. Its production in January-March 2016 was posted at 19,535.91 metric tons or 2.7 percent higher than its output in the same quarter last year. There were increased stocking rate, and early harvest in time for the Lenten season.



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

Among the provinces of Region I, Pangasinan has the bulk of milkfish production in 1st quarter 2016. It shared 94.8 percent to the total production of the region. The rest were shared by the other three provinces.



Source: Philippine Statistics Authority, Fisheries Production Survey, 1st Quarter 2016

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.

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.

For inquiries, visit or call:
Philippine Statistics Authority
Regional Statistical Services Office I
Statistical Operations and Coordination Division
Sitio 5, Brgy. Biday
San Fernando City, La Union
Telephone No. (072) 607-0247
Email Address: psa_rss1_socd@yahoo.com.ph
www.psa.gov.ph