

TECHNICAL NOTES

I. Introduction

This Fisheries Situation Report is released every quarter, which presents the data on the volume and value of production of fisheries during the reference quarter. It contains information on the current situation by major species of the four fisheries subsectors, namely, commercial, municipal and inland fisheries, and aquaculture. The data are the results of the four fisheries surveys regularly conducted by the Philippine Statistics Authority (PSA). These surveys are the following:

- a. Quarterly Commercial Fisheries Survey (QCFS);
- b. Quarterly Municipal Fisheries Survey (QMFS);
- c. Quarterly Inland Fisheries Survey (QIFS); and
- d. Quarterly Aquaculture Survey (QAqS).

The volume of production also includes compilation from administrative records of Philippine Fisheries Development Authority (PFDA), Local Government Units (LGUs), and privately-managed landing centers.

Geographic classification is based on the latest Philippine Standard Geographic Code (PSGC). The 20 major species highlighted in this report were identified based on their value of production at constant 2018 prices.

II. Data Collection

A. Surveys

1. Quarterly Commercial Fisheries Survey (QCFS)

- a. Data collection procedure

The QCFS gathers data on volume of unloading of sample boats in the sample traditional landing centers of the subsector in 58 provinces. The hired Statistical Researchers (SRs) conduct the interview of sample boats in the landing center during the data collection days. The data collection is done every week during the reference quarter.

- b. Survey Questionnaire

A structured survey form (QCFS Form 1) is used to collect information. The information being gathered are volume of unloading and price per kilogram of the top 31 species and those under the others category. The

data items collected include sample identification, boat information, fishing effort, and fish unloading. Correspondingly, the schedule of data collection and daily information per month are recorded in the QCFS Form 1b.

2. Quarterly Municipal Fisheries Survey (QMFS)

a. Data collection procedure

The QMFS gathers data on volume of unloading of sample boats in the sample traditional landing centers of the subsector in 67 provinces. The SRs conduct interview of sample boats in the landing center during the data collection days. The data collection is done every week during the reference quarter.

b. Survey Questionnaire

A structured survey form (QMFS Form 1) is used to collect information. The information being gathered are volume of unloading and price per kilogram of the top 31 species and those under the others category. The data items collected include sample identification, boat information, fishing effort, and fish unloading. Correspondingly, the schedule of data collection and daily information per month are recorded in the QMFS Form 1b.

3. Quarterly Inland Fisheries Survey (QIFS)

a. Data collection procedure

The QIFS gathers data on volume of catch of sample inland fishing households. The SRs inquire about the monthly catch of the sample households during the reference quarter in 79 provinces. The data collection is done during second to third week of the last month of the quarter, except on the last quarter of the year where data collection is a month earlier.

b. Survey Questionnaire

QIFS Form 1 is utilized to obtain data from household head or any knowledgeable member of the sample household. The survey form captures the volume of catch and price per kilogram of the 34 inland species.

4. Quarterly Aquaculture Survey (QAqS)

a. Data collection procedure

The QAqS provides the volume and value of production for the aquaculture subsector. It covers aquafarm types in various water environment, such as brackishwater fishpond, pen and cage; freshwater fishpond, pen and cage; marine pen and cage; oyster; mussel; seaweed; rice fish; and small farm reservoir (SFR) in 83 provinces. The respondents are the owner, operator and/or caretaker of the sample aquafarms. The data collection is done every second to third week of the last month of the quarter, except on the last quarter of the year where data collection is a month earlier.

b. Survey Questionnaire

Data gathered using the prescribed collection forms include volume of harvests of species cultured and price per kilogram of the aquafarm. The survey covers 17 species. The QAqS utilizes two survey forms, namely, QAqS Form 1 (Fishpond, Pen, Cage, Rice Fish, and Small Farm Reservoir) and QAqS Form 2 (Oyster, Mussel, and Seaweed).

B. Compilation of Administrative-based data from Commercial and Municipal Non-Traditional Landing Centers

1. Data collection procedure

Data collection is done on a monthly basis depending on the availability of data in the landing centers. The PSO staff and/or SR gather data from administrative records of non-traditional landing centers such as those that are managed by the Philippine Fisheries Development Authority (PFDA), Local Government Units (LGUs) and private entities for commercial subsector, and PFDA and LGUs only for municipal subsector.

2. Collection Forms

The collection forms are QCFS Form 2 and QMFS Form 2. These forms gather volume, price of fish species, and fishing ground.

III. Sampling Design of Fisheries Surveys

A. Quarterly Commercial Fisheries Survey (QCFS)

1. Sampling Frame

The updated list of commercial fish landing centers serves as the sampling frame in the selection of sample landing centers. The said list was generated from the Listing of Marine Fish Landing Centers (LMFLC) which was conducted in September 2021. The enumeration unit for the survey is the landing center.

2. Sample Selection Procedure

The selection of sample landing centers for QCFS utilizes probability proportional to size systematic sampling (PPS-Sys) where the average daily unloading (ADU) is the size measure.

First stage : Selection of Landing Centers (PPS)
Second stage: Selection of Boats (Systematic)

For the first stage, the sampling rate is 25.0 percent of the total number of landing centers in the province with a minimum of three sample landing centers. If the total boats in a landing center is greater than eight, eight boats are sampled. Otherwise, all boats in the landing center are sampled. The frequency of data collection is one day per week, separate for day and night unloadings. The sample operators can be boat operator, technician, fisherman, and/or trader.

3. Domain

The domain of the survey is province. In the case of National Capital Region, the region is the domain.

4. Estimation Procedure

a. Weight

PSU Weight

The PSU weight is computed using the following formula:

$$\alpha_{ij} = \frac{X}{aX_i}$$

where:

- α_{ij} - PSU weight of operator j in landing center i
- X - total average daily unloading for the province
- X_i - total average daily unloading for landing center i
- a - number of sample landing centers for the province

SSU Weight

The SSU weight is computed using the following formula:

$$\beta_{ijmk} = \frac{B_{ijmk}}{b_{ijmk}}$$

where:

- β_{ijmk} - SSU weight of boat j in landing center i for week k of month m
- B_{ijmk} - total number of sample boats in landing center i for week k of month m
- b_{ijmk} - number of sample boats in landing center i for week k of month m

b. Sampling Weight

Base Weight

The base weight is calculated as the product of PSU weights and SSU weights. The formula below illustrates the base weight calculation:

$$w_{ijmk} = \alpha_{ij} * \beta_{ijmk}$$

where:

- w_{ijmk} - base weight of boat j in landing center i for week k of month m
- α_{ij} - PSU weight of boat j in landing center i
- β_{ijmk} - SSU weight of boat j in landing center i for week k of month m

Adjustment Factor 1

To take into account non-sampled fishing days for week k , the adjustment factor is as follows:

$$A_{imk} = F_{imk} * I_{imk}$$

where:

A_{imk} - adjustment factor for non-sampled fishing days in week k of month m for landing center i

F_{imk} - total number of fishing days in landing center i for week k of month m

I_{imk} - actual data collection status in landing center i for week k of month m (1 if with data collection, 0 otherwise)

Adjustment Factor 2

To take into account fishing days for weeks without data collection at month m , the adjustment factor is obtained as follows:

$$A_{im} = \frac{F_{im}}{f_{im}}$$

where:

$$F_{im} = \sum_{k=1}^{n_k} F_{imk} \quad f_{im} = \sum_{k=1}^{n_k} F_{imk} I_{imk}$$

A_{im} - adjustment factor for non-fishing days in month m of landing center i

F_{im} - total number of fishing days for month m of landing center i

f_{im} - total number of represented fishing days for month m of landing center i

F_{imk} - total number of fishing days in landing center i for week k of month m

I_{imk} - actual data collection status in landing center i for week k of month m (1 if with data collection, 0 otherwise)

n_k - number of weeks in month m

Final Weight

The final weight is then computed by obtaining the product of the base weight and the adjustment factors.

$$w'_{ijmk} = w_{ijmk} * A_{imk} * A_{im}$$

where:

w'_{ijmk} - final weight of boat j in landing center i for week k of month m

w_{ijmk} - base weight of boat j in landing i for week k of month m

A_{imk} - adjustment factor for non-sampled fishing days for week k of month m in landing center i

A_{im} - adjustment factor for weeks with fishing days but no data collection in landing center i for month m

c. Estimation of Totals (Based on the Results of the Survey)

The estimate of the provincial total volume of production is computed using the following formula:

$$\hat{Y}_p = \sum_{i=1}^a \sum_{j=1}^{n_i} \sum_{m=1}^3 \sum_{k=1}^{K_m} w'_{ijmk} * y_{ijmk}$$

where:

\hat{Y}_p - estimate of total volume of production based on the results of the survey for the province

w'_{ijmk} - final weight of boat j in landing center i for week k of month m

y_{ijmk} - volume of production of boat j in landing center i for week k of month m

a - total number of sampled landing centers in the province

n_i - number of sampled boats in landing center i

K_m - total number of weeks in month m

d. Total Volume of Production for Commercial Fisheries

To obtain the total volume of production for commercial fisheries, the estimate based on the results of the survey is added to the volume of production from non-traditional landing centers compiled from the administrative records of PFDA, LGUs, and privately-managed landing centers. The formula is as follows:

$$\hat{Y}'_p = \hat{Y}_p + X$$

where:

\hat{Y}'_p - estimate of total volume of production for commercial fisheries

\hat{Y}_p - estimate of total volume of production based on the results of the survey for the province

X - administrative data on volume of production from non-traditional landing centers for the province

The estimate of the regional total volume of production is computed using the following formula:

$$\hat{Y}_r = \sum_{p=1}^{n_p} \hat{Y}'_p$$

where:

\hat{Y}_r - estimate of total volume of fish production for the region

\hat{Y}'_p - estimate of total volume of fish production for the province

n_p - total number of provinces in the region

The estimate of the national total volume of production is computed using the following formula:

$$\hat{Y} = \sum_{r=1}^{n_r} \hat{Y}_r$$

where:

\hat{Y} - estimate of total volume of fish production at the national level

\hat{Y}_r - estimate of total volume of fish production for the region

n_r - total number of regions with commercial landing center

B. Quarterly Municipal Fisheries Survey (QMFS).

1. Sampling Frame

The updated list of municipal fish landing centers serves as the sampling frame in the selection of sample landing centers. The said list was generated from the Listing of Marine Fish Landing Centers (LMFLC) which was conducted in September 2021. The enumeration unit for the survey is the landing center.

2. Sample Selection Procedure

The selection of sample landing centers for QMFS uses two-stage stratified sampling design with landing center serving as the primary sampling unit (PSU) and the boats unloaded as the secondary sampling unit (SSU). The average daily unloading (ADU) serves as the stratification variable.

First stage : Selection of Landing Centers per Stratum (Systematic)

Second stage: Selection of Boats (Systematic)

The sampling rate is 10.0 percent of the total number of landing centers in the province but with a minimum of three sample landing centers. For each sample landing center, 10 boats are selected if total boats unloaded are more

than 10, but complete enumeration if total boats is 10 or less. The frequency of data collection is one day per week, separate for day and night unloadings. The sample operators can be boat operator, technician, fisherman, and/or trader.

3. Domain

The domain of the survey is province. In the case of National Capital Region, the region is the domain.

4. Estimation Procedure

a. Weights

PSU Weight

The PSU weight is computed using the following formula:

$$\alpha_{hij} = \frac{A_h}{a_h}$$

where:

α_{hij} - PSU weight of boat j in landing center i at stratum h

A_h - total number of landing centers for the province at stratum h

a_h - number of sample landing centers for the province at stratum h

SSU Weight

The SSU weight is computed using the following formula:

$$\beta_{hijmk} = \frac{B_{hijmk}}{b_{hijmk}}$$

where:

β_{hijmk} - SSU weight of boat j in landing center i at stratum h for week k of month m

B_{hijmk} - total number of sample boats in landing center i at stratum h for week k of month m

b_{hijmk} - number of sample boats in landing center i at stratum h for week k of month m

b. Sampling Weight

Base Weight

The base weight is calculated as the product of PSU weights and SSU weights. The formula below illustrates the base weight calculation:

$$w_{hijmk} = \alpha_{hij} * \beta_{hijmk}$$

where:

w_{hijmk} - base weight of boat j in landing center i at stratum h for week k of month m

α_{hij} - PSU weight of boat j in landing center i at stratum h

β_{hijmk} - SSU weight of boat j in landing center i at stratum h for week k of month m

Adjustment Factor 1

To take into account the non-sampled fishing days for week k , the adjustment factor is as follows:

$$A_{himk} = F_{himk} * I_{himk}$$

where:

A_{himk} - adjustment factor for non-sampled fishing days for week k of month m in landing center i at stratum h

F_{himk} - total number of fishing days in landing center i at stratum h for week k of month m

I_{himk} - actual data collection status in landing center at stratum h for week k of month m (1 if with data collection, 0 otherwise)

Adjustment Factor 2

To take into account fishing days for weeks without data collection at month m , the adjustment factor is obtained as follows:

$$A_{him} = \frac{F_{him}}{f_{him}}$$

where:

$$F_{him} = \sum_{k=1}^{n_k} F_{himk} \quad f_{him} = \sum_{k=1}^{n_k} F_{himk} I_{himk}$$

- A_{him} - adjustment factor for non-fishing days in month m of landing center i at stratum h
- F_{him} - total number of fishing days for month m of landing center i at stratum h
- f_{him} - total number of represented fishing days for month m of landing center i at stratum h
- F_{himk} - total number of fishing days in landing center i at stratum h for week k of month m
- I_{himk} - actual data collection status in landing center i at stratum h for week k of month m (1 if with data collection, 0 otherwise)
- n_k - number of weeks in month m

Final Weight

The final weight is then computed by obtaining the product of the adjusted base weight and the adjustment factors.

$$w'_{hijmk} = w_{hijmk} * A_{himk} * A_{him}$$

where:

- w'_{hijmk} - final weight of boat j in landing center i at stratum h for week k of month m
- w_{hijmk} - base weight of boat j in landing center i at stratum h for week k of month m
- A_{himk} - adjustment factor for non-sampled fishing days for week of landing center i for month m in landing center i at stratum h
- A_{him} - adjustment factor for weeks with fishing days but no data collection in landing center i of month m at stratum h

c. Estimation of Totals (Based on the Results of the Survey)

The estimate of the provincial total volume of production is computed using the following formula:

Stratum h production

$$\hat{Y}_h = \sum_{i=1}^{a_h} \sum_{j=1}^{n_{hi}} \sum_{m=1}^3 \sum_{k=1}^{K_m} w'_{hijmk} * y_{hijmk}$$

Provincial total

$$\hat{Y}_p = \sum_{h=1}^L \hat{Y}_h$$

where:

- \hat{Y}_p - estimate of total volume of production based on the results of the survey for the province
- \hat{Y}_h - estimate of total volume of fish production at stratum h
- w'_{hijmk} - final weight of boat j in landing center i at stratum h for week k of month m
- y_{hijmk} - volume of production of boat j in landing center i at stratum h for week k of month m
- a_h - total number of sampled landing centers for stratum h of the province
- n_{hi} - number of sampled boats in landing center i in stratum h
- K_m - total number of weeks in month m
- L - total number of strata

d. Total Volume of Production for Municipal Fisheries

To obtain the total volume of production for municipal fisheries, the estimate based on the results of the survey is added to the volume of production from non-traditional landing centers compiled from the administrative records of PFDA and LGUs. The formula is as follows:

$$\hat{Y}'_p = \hat{Y}_p + X$$

where:

- \hat{Y}'_p - estimate of total volume of production for municipal fisheries
- \hat{Y}_p - estimate of total volume of production based on the results of the survey for the province
- X - administrative data on volume of production from non-traditional landing centers for the province

The estimate of the regional total volume of production is computed using the following formula:

$$\hat{Y}_r = \sum_{p=1}^{n_p} \hat{Y}'_p$$

where:

\hat{Y}_r - estimate of total volume of fish production for the region

\hat{Y}'_p - estimate of total volume of fish production for the province

n_p - total number of provinces in the region

The estimate of the national total volume of production is computed using the following formula:

$$\hat{Y} = \sum_{r=1}^{n_r} \hat{Y}_r$$

where:

\hat{Y} - estimate of total volume of fish production for the national level

\hat{Y}_r - estimate of total volume of fish production for the region

n_r - total number of regions with municipal landing center

C. Quarterly Inland Fisheries Survey (QIFS)

1. Sampling Frame

The QIFS uses the 2012 Census of Agriculture and Fisheries (CAF) as its sampling frame. The frame was used to draw sample inland fishing households for the survey. The enumeration unit for the QIFS is the inland fishing household. An inland fishing household is a household with at least one member engaged in inland fishing.

2. Sample Selection Procedure

The QIFS uses a two-stage sampling design with barangay as the primary sampling unit (PSU) and inland fishing household as the secondary sampling Unit (SSU).

Sample barangays (PSUs) are selected using probability proportional to size (PPS) with sampling rate of 10.0 percent. The number of inland fishing households is used as the size measure. Sample inland fishing households (SSUs) are selected using simple random sampling (SRS) for each sample barangay. The number of sample inland fishing households is 10 per

barangay. For a sample barangay which has less than 10 inland fishing households, all households are taken as samples.

3. Domain

The domain of the survey is province. In the case of National Capital Region, the region is the domain.

4. Estimation Procedure

a. Sampling Weight

Base Weight

The base weight (w_{ij}) of a sample household in a barangay is computed using the following formula:

$$w_{ij} = \left(\frac{X}{aX_i} \right) \left(\frac{N_i}{n_i} \right)$$

where:

w_{ij} - weight of household j in barangay i

X - total number of inland fishing households for the province

X_i - total number of inland fishing households in barangay i

a - number of sample inland fishing barangays for the province

N_i - total number of inland fishing households in barangay i

n_i - number of sample inland fishing households in barangay i

Adjustment Factor

To account for non-response, the weight adjustment factor for province p (A_p) is computed as follows:

$$A_p = \frac{\sum_{i=1}^a \sum_{j=1}^{n_i} w_{ij} X_{1ij}}{\sum_{i=1}^a \sum_{j=1}^{n_i} w_{ij} X_{2ij}}$$

where:

A_p - adjustment factor for province p

w_{ij} - base weight of household j in barangay i

n_i - number of sample inland fishing households in barangay i

a - number of sample inland fishing barangays for the province

X_{1ij} - eligible status of sample inland fishing household j in barangay i
(1 if eligible, 0 otherwise)

X_{2ij} - responding status of sample inland fishing household j in
barangay i (1 if responding, 0 otherwise)

Final Weight

The final weight (w'_{ij}) is obtained by multiplying the base weight and adjustment factor as follows:

$$w'_{ij} = w_{ij} \times A_p$$

where:

w'_{ij} - final weight of household j in barangay i

w_{ij} - base weight of household j in barangay i

A_p - adjustment factor for province p

b. Estimation of Totals

The estimate of the provincial total volume of production is computed using the following formula:

$$\hat{Y}_p = \sum_{i=1}^a \sum_{j=1}^{n_i} w'_{ij} y_{ij}$$

where:

\hat{Y}_p - estimate of total volume of fish production for the province

w'_{ij} - final weight of household j in barangay i

y_{ij} - volume of fish production of household j in barangay i

n_i - number of sample inland fishing household in barangay i

a - number of sample inland fishing barangays for the province

The estimate of the regional total volume of production is computed using the following formula:

$$\hat{Y}_r = \sum_{p=1}^{n_p} \hat{Y}_p$$

where:

\hat{Y}_r - estimate of total volume of fish production for the region

\hat{Y}_p - estimate of total volume of fish production for the province

n_p - total number of provinces in the region

The estimate of the national total volume of production is computed using the following formula:

$$\hat{Y} = \sum_{r=1}^{n_r} \hat{Y}_r$$

where:

- \hat{Y} - estimate of total volume of fish production for the national level
- \hat{Y}_r - estimate of total volume of fish production for the region
- n_r - total number of regions with inland fishing households

D. Quarterly Aquaculture Survey (QAqS).

1. Sampling Frame

The basis for the sampling frame of QAqS is the list of aquafarms by type and environment. The said list was the result of the Updating of List of Aquaculture Farms (ULAF) conducted in 2017. The ULAF results serve as basis in updating the sampling frame for the aquaculture survey which covers aquafarm types in various water environment, namely, brackishwater fishpond, pen and cage; freshwater fishpond, pen and cage; marine pen and cage; oyster; mussel; seaweed; rice fish; and small farm reservoir (SFR).

2. Sample Selection Procedure

The sample selection for QAqS utilizes probability proportional to size systematic sampling (PPS-Sys) method with area of aquafarm as the size measure. Sample aquafarms are selected in each domain using systematic sampling by aquafarm type. Sampling rate is 15.0 percent of the total number of aquafarms with five aquafarms as the minimum for each aquafarm type in the province.

3. Domain

The domain of the survey is province. In the case of National Capital Region, the region is the domain.

4. Estimation Procedure – since the aquafarm types are independent, the estimation will be done per aquafarm type.

a. Sampling Weight

Base Weight

The base weight of the sample aquafarm operator i , or w_i , in the province is given by the formula:

$$w_i = \frac{X}{aX_i}$$

where:

- a - number of sample aquafarm in the province
- X - total aquafarm area in the province
- X_i - aquafarm area of the sample aquafarm

Adjustment Factor

To account for non-response, the weight adjustment factor for province p (A_p) is computed as follows:

$$A_p = \frac{\sum_{i=1}^a w_i X_{1i}}{\sum_{i=1}^a w_i X_{2i}}$$

where:

- A_p - adjustment factor of province p
- w_i - base weight of sample aquafarm i
- X_{1i} - eligible status of sample aquafarm i (1 if eligible, 0 otherwise)
- X_{2i} - responding status of sample aquafarm i (1 if eligible, 0 otherwise)
- a - number of sample aquafarm in the province

Final Weight

The final weight (w_i') of the sample aquafarm i is obtained by multiplying the base weight and adjustment factor as follows:

$$w_i' = w_i * A_p$$

where:

- w_i' - final weight of sample aquafarm i
- w_i - base weight of sample aquafarm i
- A_p - adjustment factor for province p

b. Estimation of Totals

The estimate of the provincial total volume of production is computed using the following formula:

$$\hat{Y}_p = \sum_{i=1}^a w_i y_i$$

where:

\hat{Y}_p - estimate of total volume of fish production for the province

w_i - final weight of sample aquafarm i

y_i - production of aquafarm i

a - number of sample aquafarm in the province

The estimate of the regional total volume of production is computed using the following formula:

$$\hat{Y}_r = \sum_{p=1}^{n_p} \hat{Y}_p$$

where:

\hat{Y}_r - estimate of total volume of fish production for the region

\hat{Y}_p - estimate of total volume of fish production for the province

n_p - total number of provinces in the region

The estimate of the national total volume of production is computed using the following formula:

$$\hat{Y} = \sum_{r=1}^{n_r} \hat{Y}_r$$

where:

\hat{Y} - estimate of total volume of fish production for the national

\hat{Y}_r - estimate of total volume of fish production for the region

n_r - total number of regions with aquafarms

IV. Concepts and Definitions of Terms

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

Aquafarms are 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 refers 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.

Commercial fishing refers to the catching of fish with the use of fishing boats with a capacity of more than three gross tons for trade, business, or profit beyond subsistence or sports fishing.

Fishermen is a classification of workers who catch, breed, and raise fish, and cultivate other forms of aquatic life for sale or delivery on a regular basis to wholesale buyers, marketing organizations, or at markets.

Fisheries refer to 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 (Republic Act No. 8550 otherwise known as “The Philippine Fisheries Code of 1998”).

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

Fishing refers to the taking of fishery species from their wild state or habitat with or without the use of fishing vessels.

Fishing boat is a type of watercraft, such as motorized/non-motorized banca, sailboat, motorboat, etc., either licensed or not, used for fishing purposes.

Fish cage refers to 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 is any instrument or device and its accessories utilized in taking fish and other fishery species.

Fishing grounds refer to areas in any body of water where fish and other aquatic resources congregate and become target of capture.

Fish pen is 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 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. 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 refers to water without salt or marine origin, such as generally found in lakes, rivers, canals, dams, reservoirs, paddy fields, and swamps.

Inland municipal fishing is 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 gross tons or less; or fishing not requiring the use of fishing boats.

Landing center is a place where the fish catch and other aquatic products are unloaded and traded.

Marine refers to seawater outside the coastal line such as Manila Bay, Visayan Sea, etc.

Municipal fishing covers fishing operation carried out with or without the use of a boat weighing three gross tons or less.

Mussel farming refers to the cultivation of mussel in suitable water area by any farming method with appropriate intents and purposes.

Oyster farming refers to the cultivation of oysters in suitable water areas by any method for production purposes.

Rice fish culture is an integrated farming system involving raising of fish in rice paddies.

Seawater refers to inshore and open waters and inland seas in which the salinity generally exceeds 20.0 percent.

Seaweed farming is the cultivation of seaweed in suitable water areas by any method with appropriate intensive care for production in commercial quantities.

Small farm reservoirs (SFR) are small bodies of water with an area of less than 10 km, e.g., small ponds, canals, irrigation canals, swamps, etc., which can be suitable for culture-based fisheries.

V. Dissemination of Results and Revision

Dissemination of Results

The quarterly fisheries estimates and Fisheries Situation Report for the year 2023 is released quarterly in the PSA Website with the following schedule:

Reference Quarter	Schedule of Release	
	Estimates for OpenStat	Fisheries Situation Report
Quarter 4 2022	30 January 2023	30 January 2023
Quarter 1 2023	15 May 2023	15 May 2023
Quarter 2 2023	15 August 2023	15 August 2023
Quarter 3 2023	15 November 2023	15 November 2023

Revision of Estimates

The fisheries statistics follows the revision policy as stipulated in the PSA Board Resolution No. 01, Series of 2017-119 dated 14 February 2017, which approves the revision of quarterly estimates on agricultural production, prices, and related statistics to be limited to the immediately preceding quarter and for the past three years with quarterly breakdown to be done only during May of the current year.

VI. Citation

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VII. Contact Information

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