REPUBLIC OF THE PHILIPPINES
PHILIPPINE STATISTICS AUTHORITY

Fisheries Situation Report for Major Species

January to March 2023

REPUBLIC OF THE PHILIPPINES

HIS EXCELLENCY
PRESIDENT FERDINAND ROMUALDEZ MARCOS, JR.

PHILIPPINE STATISTICS AUTHORITY

CLAIRE DENNIS S. MAPA, PhD
Undersecretary
National Statistician and Civil Registrar General

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FOREWORD

The **Fisheries Situation Report for Major Species, January to March 2023** is a quarterly statistical report on fisheries. It contains data on volume and value of fish production, and farmgate prices by major species.

This publication is a compilation of survey results for the four (4) fisheries subsectors, namely, commercial, municipal and inland fisheries, and aquaculture. The volume and value of production of different fish species are generated through the conduct of Quarterly Commercial Fisheries Survey (QCFS), Quarterly Municipal Fisheries Survey (QMFS), Quarterly Inland Fisheries Survey (QIFS), and Quarterly Aquaculture Survey (QAqS). Administrative-based data, sourced from the Philippine Fisheries Development Authority (PFDA), Local Government Units (LGUs), and private landing centers are also part of the compilation.

As in other publications released by the PSA, we invite our readers and data users to give comments and suggestions for further improvement of this report.

DIVINA GRACIA L. DEL PRADO, PhD
(Assistant National Statistician)
Officer-in-Charge, Deputy National Statistician
Sectoral Statistics Office

Quezon City, Philippines
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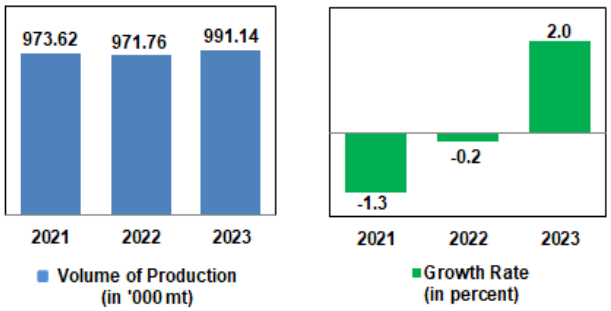
Volume of Production by Subsector and Species
January to March 2023

In the first quarter of 2023, the volume of fisheries production was recorded at 991.14 thousand metric tons. This reflects an increase of 2.0 percent compared with the 971.76 thousand metric tons output in the same period of the previous year. Production increases were noted in marine municipal fisheries and aquaculture subsectors, while commercial and inland municipal fisheries subsectors reported setbacks. (Figure 1 and Table 1)

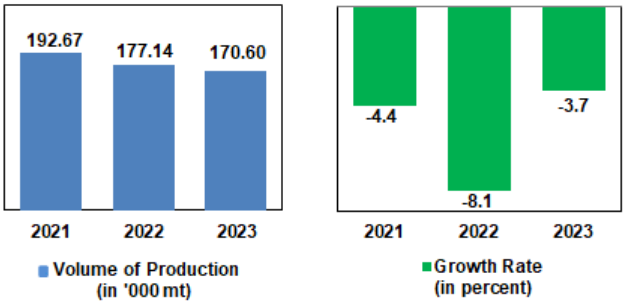
Figure 1. Volume and Annual Growth Rate of Fisheries Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, Quarterly Commercial Fisheries Survey (QCFS), Quarterly Municipal Fisheries Survey (QMFS), Quarterly Inland Fisheries Survey (QIFS), and Quarterly Aquaculture Survey (QAqS)

Commercial fisheries production was estimated at 170.60 thousand metric tons during the period, which indicates a decline of -3.7 percent from the 177.14 thousand metric tons recorded production in the same period of 2022. The subsector contributed 17.2 percent to the total fisheries production during the quarter. (Figure 2 and Table 1)

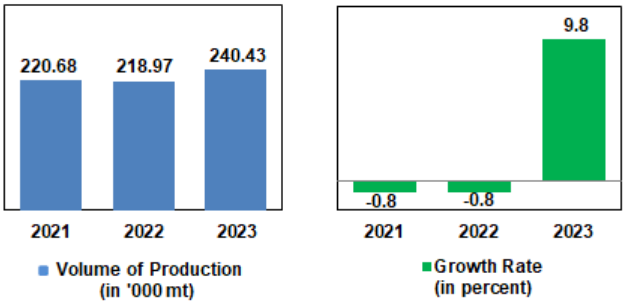
Figure 2. Volume and Annual Growth Rate of Commercial Fisheries Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Source: Philippine Statistics Authority, QCFS

The marine municipal fisheries output reached 240.43 thousand metric tons during the first quarter of the year. This was 9.8 percent higher than the same quarter of 2022 level of 218.97 thousand metric tons. The subsector's share to the total fisheries production during the period was 24.3 percent. (Figure 3 and Table 1)

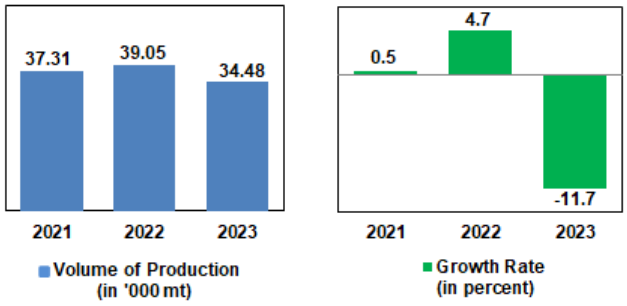
Figure 3. Volume and Annual Growth Rate of Marine Municipal Fisheries Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Source: Philippine Statistics Authority, QMFS

Inland municipal fisheries production recorded an output of 34.48 thousand metric tons during the quarter. This indicates a decline of -11.7 percent from the same period of the previous year's estimate of 39.05 thousand metric tons. Of the total fisheries production during the quarter, inland municipal fisheries comprised 3.5 percent. (Figure 4 and Table 1)

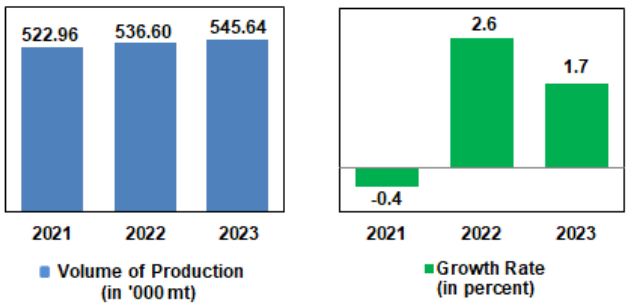
Figure 4. Volume and Annual Growth Rate of Inland Municipal Fisheries Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Source: Philippine Statistics Authority, QIFS

During the first quarter of 2023, aquaculture production was registered at 545.64 thousand metric tons, which was higher by 1.7 percent compared with the previous year's same quarter output of 536.60 thousand metric tons. Aquaculture subsector constituted the biggest share of 55.1 percent to the total fisheries production during the period. (Figure 5 and Table 1)

Figure 5. Volume and Annual Growth Rate of Aquaculture Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Source: Philippine Statistics Authority, QAqS

Of the 20 major species, increases in production were mainly noted in tilapia (10.8%), milkfish (bangus, 6.6%), squid (pusit, 18.2%), and big-eyed scad (matangbaka, 5.9%). (Table 2)

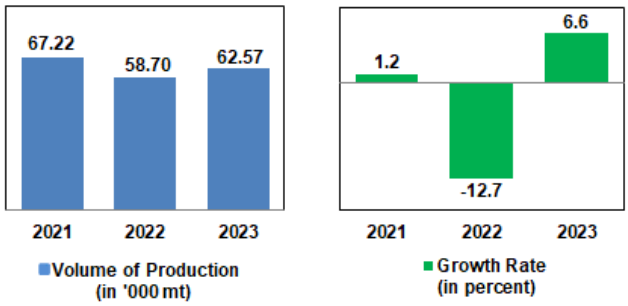
On the other hand, significant declines in production were primarily reported in frigate tuna (tulingan, -29.0%), roundscad (galunggong, -13.5%), and seaweed (-1.0%). (Table 2)

Production of Major Species

1. Milkfish (Bangus)

a. Milkfish production during the first quarter of 2023 was estimated at 62.57 thousand metric tons. It rose by 6.6 percent compared with the previous year's same period production of 58.70 thousand metric tons. (Figure 6 and Table 2)

Figure 6. Volume and Annual Growth Rate of Milkfish Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QIFS and QAqS

b. Total milkfish harvests accounted for 6.3 percent of the total fisheries output during the period. (Table 2)

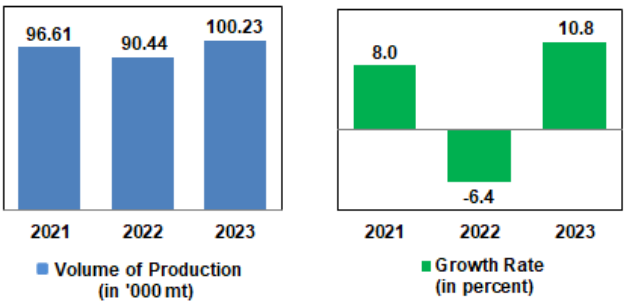
c. The value of milkfish output amounted to PhP 8.54 billion at current prices in the first quarter of 2023. This registers an uptrend of 24.0 percent from the same period of the previous year's record of PhP 6.89 billion value of production. (Table 3)

d. On average, the farmgate price per kilogram of milkfish was recorded at PhP 136.49, which exhibited a 16.3 percent gain from the first quarter of 2022 average farmgate price of PhP 117.33 per kilogram. (Table 4)

2. Tilapia

a. Total harvests of tilapia during the first quarter of 2023 at 100.23 thousand metric tons increased by 10.8 percent compared with the same quarter of the previous year's level of 90.44 thousand metric tons. (Figure 7 and Table 2)

Figure 7. Volume and Annual Growth Rate of Tilapia Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QIFS and QAqS

b. Tilapia production constituted 10.1 percent of the overall fisheries production for this quarter. (Table 2)

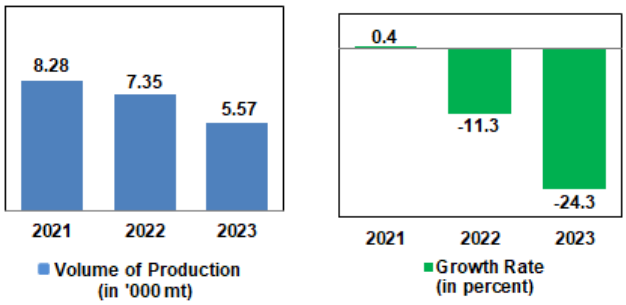
c. The value of tilapia production in the first quarter of 2023 was PhP 9.60 billion at current prices, indicating a 34.2 percent growth from its value in the same period of the previous year at PhP 7.15 billion. (Table 3)

d. During the period, the national average farmgate price of tilapia was posted at PhP 95.75 per kilogram. It was 21.1 percent higher than the quotation in the same period of previous year of PhP 79.08 per kilogram. (Table 4)

3. Tiger prawn (Sugpo)

a. A total of 5.57 thousand metric tons of tiger prawn were produced during the first quarter of 2023. This indicates a -24.3 percent decrease from the same quarter of last year's production of 7.35 thousand metric tons. (Figure 8 and Table 2)

Figure 8. Volume and Annual Growth Rate of Tiger Prawn Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QIFS and QAqS

b. Tiger prawn caught this quarter contributed 0.6 percent to the total fisheries production in the first quarter of 2023. (Table 2)

c. The gross value of production at current prices for tiger prawn amounted to PhP 3.88 billion in the first quarter of 2023. It went up by 6.6 percent from the PhP 3.64 billion value in the same quarter of 2022. (Table 3)

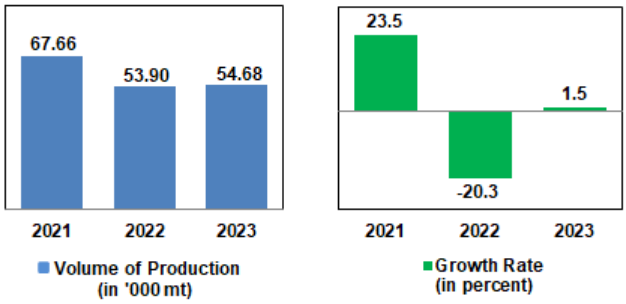
d. The average farmgate price of tiger prawn at the national level for the first quarter of 2023 was quoted at PhP 696.21 per kilogram. This indicates a 40.7 percent increase from the same quarter of last year's average farmgate price of PhP 494.80 per kilogram. (Table 4)

4. Skipjack (Gulyasan)

a. Skipjack production was estimated at 54.68 thousand metric tons. This indicates an increase of 1.5 percent from the 53.90 thousand metric tons output in the same quarter of the previous year. (Figure 9 and Table 2)

b. During the quarter, skipjack output shared 5.5 percent to the total fisheries production. (Table 2)

Figure 9. Volume and Annual Growth Rate of Skipjack Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

c. At current prices, the gross value of skipjack was observed at PhP 6.37 billion during the first quarter of 2023. It increased by 44.7 percent compared with its value of PhP 4.40 billion in the same quarter of 2022. (Table 3)

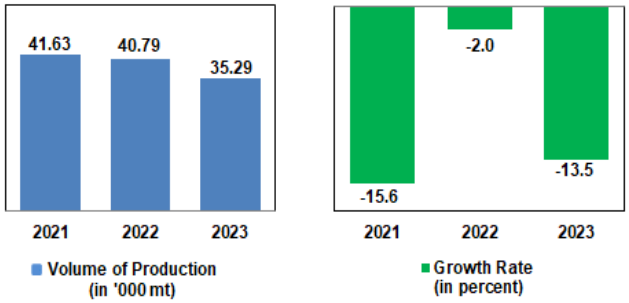
d. During the quarter, the average farmgate price of skipjack was recorded at PhP 116.54 per kilogram. It registered an increment of 42.6 percent from the same quarter of the previous year's average farmgate price quotation of PhP 81.70 per kilogram. (Table 4)

5. Roundscad (Galunggong)

a. The total volume of roundscad production during the first quarter of 2023 was estimated at 35.29 thousand metric tons. This registers a decrease of -13.5 percent compared with its same quarter of the previous year's production of 40.79 thousand metric tons. (Figure 10 and Table 2)

b. Among the species, roundscad accounted for 3.6 percent of the total fisheries production during the period. (Table 2)

Figure 10. Volume and Annual Growth Rate of Roundscad Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

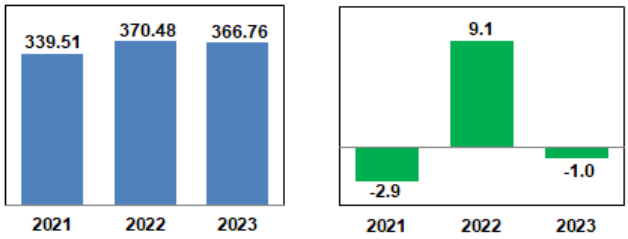
c. Roundscad's total value of production at current prices amounted to PhP 4.01 billion, representing an increase of 9.5 percent from its same quarter of previous year's value of PhP 3.66 billion. (Table 3)

d. The national average farmgate price of roundscad climbed to PhP 113.58 per kilogram during the quarter. This indicates a 26.6 percent increase from its same quarter of 2022 average farmgate price of PhP 89.75 per kilogram. (Table 4)

6. Seaweed

a. In the first quarter of 2023, the volume of seaweed production was recorded at 366.76 thousand metric tons. From the previous year's same quarter performance of 370.48 thousand metric tons, this quarter's production reflected a -1.0 percent cutback. (Figure 11 and Table 2)

Figure 11. Volume and Annual Growth Rate of Seaweed Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Source: Philippine Statistics Authority, QAqS

b. Seaweed output comprised 37.0 percent of the total fisheries production during the reference period. (Table 2)

c. The gross value of seaweed production during the quarter amounted to PhP 3.70 billion at current prices. It rose by 26.3 percent compared with its same period of the previous year's value of PhP 2.93 billion. (Table 3)

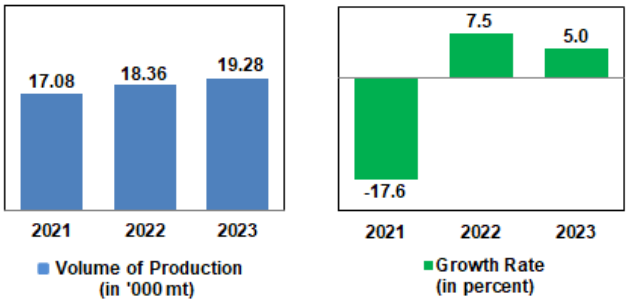
d. During the first quarter of 2023, the average farmgate price per kilogram of seaweed at the national level was posted at PhP 10.09. In comparison to the first quarter of 2022 average farmgate price of PhP 7.91 per kilogram, this represents a 27.6 percent gain. (Table 4)

7. Yellowfin tuna (Tambakol/Bariles)

a. Around 19.28 thousand metric tons of yellowfin tuna were produced in the first quarter of 2023. This volume was 5.0 percent higher than the output of 18.36 thousand metric tons in the same quarter of 2022. (Figure 12 and Table 2)

b. The share of yellowfin tuna to the overall fisheries production was 1.9 percent for this quarter. (Table 2)

Figure 12. Volume and Annual Growth Rate of Yellowfin Tuna Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

c. At current prices, the production of yellowfin tuna during the period was worth PhP 3.61 billion. It increased by 44.1 percent in comparison to the previous year's same quarter record of PhP 2.51 billion value of production. (Table 3)

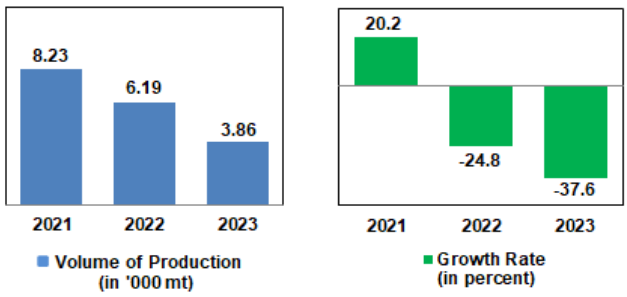
d. Yellowfin tuna's national average farmgate price was recorded at PhP 187.25 per kilogram. This indicates an increase of 37.2 percent from the 2022 same period average farmgate price of PhP 136.46 per kilogram. (Table 4)

8. Mudcrab (Alimango)

a. The estimated production of mudcrab for the first quarter of 2023 was 3.86 thousand metric tons, reflecting a decline of -37.6 percent from the same quarter of 2022 record of 6.19 thousand metric tons. (Figure 13 and Table 2)

b. Mudcrab caught this quarter contributed 0.4 percent to the total fisheries production in the first quarter of 2023. (Table 2)

Figure 13. Volume and Annual Growth Rate of Mudcrab Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QIFS and QAqS

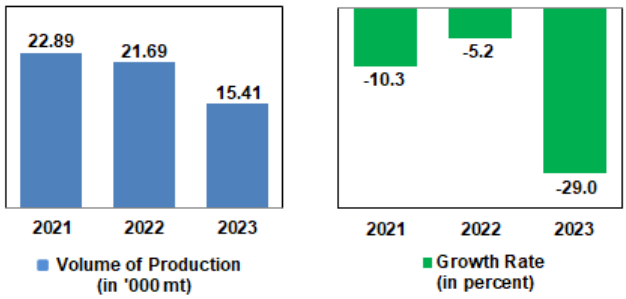
c. The gross value of production at current prices for mudcrab in the first quarter of 2023 amounted to PhP 2.04 billion. It recorded a reduction of -14.0 percent from its PhP 2.37 billion value in the same quarter of 2022. (Table 3)

d. On average, the farmgate price of mudcrab at the national level during this quarter was recorded at PhP 528.18 per kilogram. This registers a 37.8 percent increase from the same quarter of the previous year's average farmgate price of PhP 383.20 per kilogram. (Table 4)

9. Frigate tuna (Tulingan)

a. The total volume of frigate tuna production was estimated at 15.41 thousand metric tons during the first quarter of 2023. It posted a decline of -29.0 percent from the previous year's same quarter record of 21.69 thousand metric tons. (Figure 14 and Table 2)

Figure 14. Volume and Annual Growth Rate of Frigate Tuna Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

b. This quarter's production of frigate tuna represented 1.6 percent of the total fisheries output. (Table 2)

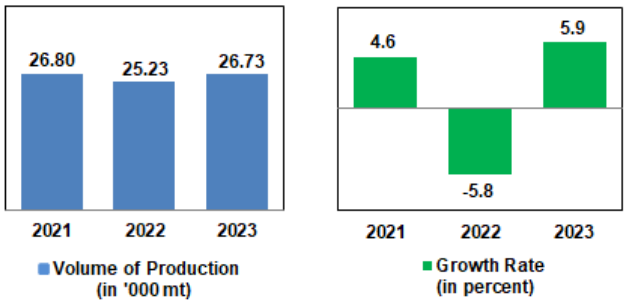
c. At current prices, the production of frigate tuna during the quarter generated a total value of PhP 2.10 billion. It went up by 0.5 percent relative to the PhP 2.09 billion value of production in the same quarter of the previous year. (Table 3)

d. At the national level, the average farmgate price of frigate tuna was quoted at PhP 136.17 per kilogram. Compared with the same quarter of the previous year's average farmgate price of PhP 96.23 per kilogram, this quarter's farmgate price expanded by 41.5 percent. (Table 4)

10. Big-eyed scad (Matangbaka)

a. The production of big-eyed scad during the quarter was registered at 26.73 thousand metric tons. This indicates an increase of 5.9 percent from the same quarter of the previous year's level of 25.23 thousand metric tons. (Figure 15 and Table 2)

Figure 15. Volume and Annual Growth Rate of Big-eyed Scad Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

b. Of the total fisheries production, a 2.7 percent share was contributed by big-eyed scad production during the first quarter of 2023. (Table 2)

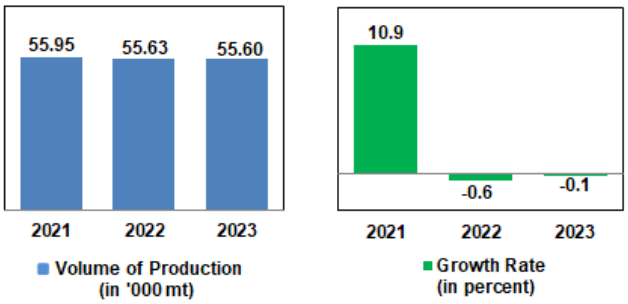
c. The gross value of big-eyed scad production this quarter at current prices amounted to PhP 3.33 billion, which records an increase of 38.9 percent from the same quarter of the previous year's level of PhP 2.40 billion value. (Table 3)

d. The average farmgate price of big-eyed scad for this quarter was registered at PhP 124.71 per kilogram. It posted an increase of 31.1 percent from the first quarter of the previous year's quotation of PhP 95.11 per kilogram. (Table 4)

11. Bali sardinella (Tamban)

a. A total of 55.60 thousand metric tons of bali sardinella production was recorded during the first quarter of 2023. This reflects a decrease of -0.1 percent from the same quarter of the previous year's level of 55.63 thousand metric tons. (Figure 16 and Table 2)

Figure 16. Volume and Annual Growth Rate of Bali Sardinella Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

b. The volume of bali sardinella production accounted for 5.6 percent of the overall fisheries production during the quarter. (Table 2)

c. The total value of bali sardinella production during the quarter amounted to PhP 2.44 billion at current prices. It went up by 42.5 percent compared with its gross value in the same quarter of the previous year of PhP 1.71 billion. (Table 3)

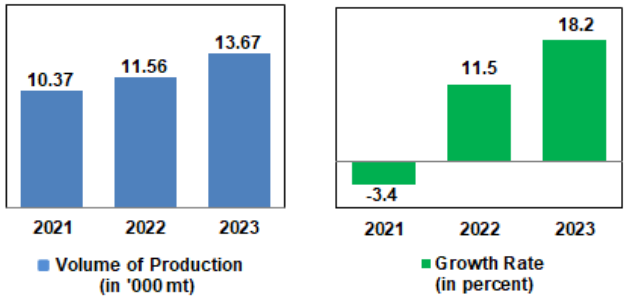
d. At the national level, the average farmgate price of bali sardinella was recorded at PhP 43.90 per kilogram during the period, which was 42.6 percent higher than its same quarter of the previous year's record of PhP 30.79 per kilogram. (Table 4)

12. Squid (Pusit)

a. About 13.67 thousand metric tons of squid were produced during the quarter. It grew by 18.2 percent compared with the 11.56 thousand metric tons output in the same period of 2022. (Figure 17 and Table 2)

b. During this first quarter of 2023, squid production contributed 1.4 percent to the total fisheries production. (Table 2)

Figure 17. Volume and Annual Growth Rate of Squid Production, Philippines: January to March 2021 to 2023[P]



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

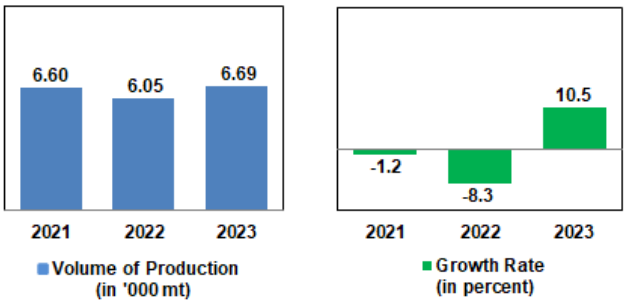
c. The first quarter of 2023 gross value of squid production reached PhP 2.40 billion at current prices. It improved by 50.0 percent from its total earnings of PhP 1.60 billion in the same period of 2022. (Table 3)

d. The average farmgate price of squid at the national level was posted at PhP 175.33 per kilogram during the first quarter of 2023, which went up by 26.9 percent compared with its average farmgate price of PhP 138.16 per kilogram in the same period of 2022. (Table 4)

13. Blue crab (Alimasag)

a. The total volume of blue crab produced during the first quarter of 2023 was registered at 6.69 thousand metric tons. It increased by 10.5 percent from the same quarter of the previous year's level of 6.05 thousand metric tons. (Figure 18 and Table 2)

Figure 18. Volume and Annual Growth Rate of Blue Crab Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS, QMFS, and QIFS

b. Of the total fisheries output, blue crab production shared 0.7 percent during the quarter. (Table 2)

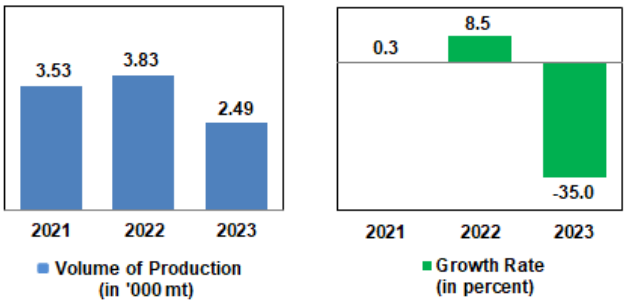
c. The gross value of blue crab production for the quarter amounted to PhP 1.20 billion at current prices. It registered a downtrend of -0.8 percent from the PhP 1.21 billion value of production recorded in the same quarter of 2022. (Table 3)

d. The average farmgate price of blue crab during the period was quoted at PhP 179.84 per kilogram at the national level. This registers a decline of -10.2 percent compared with the previous year's same quarter average farmgate price of PhP 200.29 per kilogram. (Table 4)

14. Bigeye tuna (Tambakol/Bariles)

a. During the first quarter of 2023, the total bigeye tuna production was estimated at 2.49 thousand metric tons. It exhibited a drop of -35.0 percent compared with the 3.83 thousand metric tons level in the same quarter a year ago. (Figure 19 and Table 2)

Figure 19. Volume and Annual Growth Rate of Bigeye Tuna Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

b. Bigeye tuna production shared 0.3 percent to the total fisheries production in the first quarter of 2023. (Table 2)

c. The gross value of bigeye tuna production during the quarter reached PhP 0.39 billion at current prices. It registered a double-digit downturn of -37.2 percent compared with the PhP 0.62 billion mark in the first quarter of 2022. (Table 3)

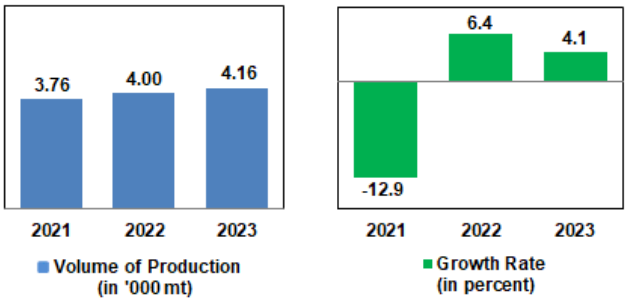
d. The average farmgate price of bigeye tuna during the quarter decreased to PhP 156.85 per kilogram or by -3.4 percent from its average farmgate price quotation of PhP 162.41 per kilogram in the same quarter of the previous year. (Table 4)

15. Grouper (Lapu-lapu)

a. During the first quarter of 2023, the total grouper production was recorded at 4.16 thousand metric tons. It grew by 4.1 percent from the same quarter volume of 4.00 thousand metric tons in the previous year. (Figure 20 and Table 2)

b. Of the total fisheries production, grouper output contributed 0.4 percent during the quarter. (Table 2)

Figure 20. Volume and Annual Growth Rate of Grouper Production, Philippines: January to March 2021 to 2023[P]



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS, QMFS, and QAqS

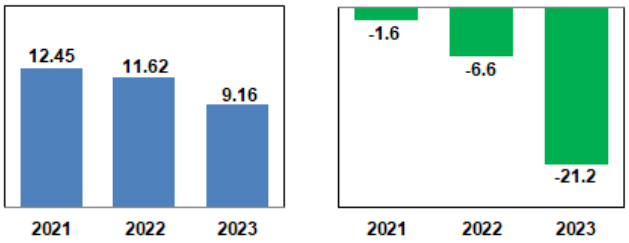
c. The gross value of grouper production during the period amounted to PhP 0.82 billion at current prices. It exhibits an uptrend of 7.3 percent from the PhP 0.76 billion value in the same quarter of 2022. (Table 3)

d. The average farmgate price of grouper during the quarter was quoted at PhP 196.10 per kilogram. It went up by 3.1 percent compared with the previous year's same quarter average farmgate price of PhP 190.27 per kilogram. (Table 4)

16. Indian mackerel (Alumahan)

a. Indian mackerel production during the first quarter of 2023 was estimated at 9.16 thousand metric tons. This indicates a downturn of -21.2 percent from the previous year's same quarter record of 11.62 thousand metric tons. (Figure 21 and Table 2)

Figure 21. Volume and Annual Growth Rate of Indian Mackerel Production, Philippines: January to March 2021 to 2023[P]



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

b. Indian mackerel production during the quarter contributed 0.9 percent to the total fisheries production. (Table 2)

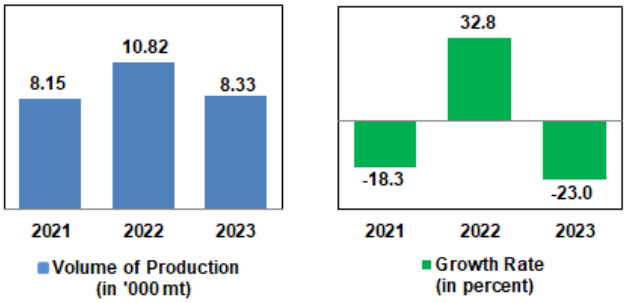
c. At current prices, indian mackerel production during the quarter was recorded at PhP 1.30 billion. This shows an increase of 1.6 percent from its value in the same quarter of the previous year of PhP 1.28 billion. (Table 3)

d. During the period, the average farmgate price of indian mackerel was quoted at PhP 141.50 per kilogram at the national level. It increased by 28.9 percent compared with the same quarter of the previous year's average farmgate price of PhP 109.77 per kilogram. (Table 4)

17. Threadfin bream (Bisugo)

a. Total threadfin bream production in the first quarter of 2023 was estimated at 8.33 thousand metric tons, which indicates a decline of -23.0 percent from its same quarter of last year's output of 10.82 thousand metric tons. (Figure 22 and Table 2)

Figure 22. Volume and Annual Growth Rate of Threadfin Bream Production, Philippines: January to March 2021 to 2023[P]



P - preliminary
mt - metric ton
Source: Philippine Statistics Authority, QCFS and QMFS

b. Of the total fisheries production during the quarter, threadfin bream production contributed 0.8 percent. (Table 2)

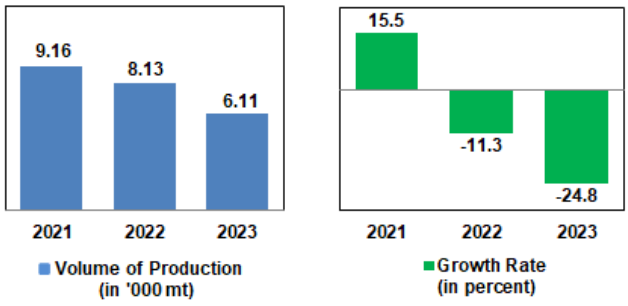
c. During the period, the gross value of threadfin bream production amounted to PhP 1.58 billion at current prices. This reflects a decline of -12.6 percent from its previous year of the same quarter value of PhP 1.81 billion. (Table 3)

d. The average farmgate price of threadfin bream during the quarter was registered at PhP 189.62 per kilogram. It recorded an increment of 13.5 percent from the previous year's same quarter average farmgate price of PhP 167.08 per kilogram. (Table 4)

18. Slipmouth (Sapsap)

a. For the first quarter of 2023, production of slipmouth was posted at 6.11 thousand metric tons or a decrease of -24.8 percent compared with its level of 8.13 thousand metric tons in the same period of the previous year. (Figure 23 and Table 2)

Figure 23. Volume and Annual Growth Rate of Slipmouth Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

b. Of the total fisheries output, slipmouth production shared 0.6 percent this quarter. (Table 2)

c. The value of slipmouth production during the quarter amounted to PhP 0.58 billion at current prices. This indicates a decrease of -16.1 percent from its value of PhP 0.69 billion in the same quarter of the previous year. (Table 3)

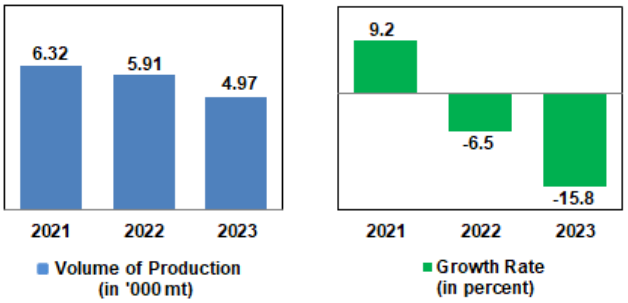
d. During the quarter, the average farmgate price of slipmouth species was recorded at PhP 94.74 per kilogram. This was 11.5 percent higher than the 2022 same period average farmgate price of PhP 84.96 per kilogram. (Table 4)

19. Cavalla (Talakitok)

a. A total of 4.97 thousand metric tons of cavalla were produced during the quarter. This shows a decrease of -15.8 percent from its production of 5.91 thousand metric tons in the same period of the previous year. (Figure 24 and Table 2)

b. During the quarter, cavalla production shared 0.5 percent to the total volume of fisheries production. (Table 2)

Figure 24. Volume and Annual Growth Rate of Cavalla Production, Philippines: January to December 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

c. At current prices, cavalla production during the period was valued at PhP 0.84 billion, representing a decline of -7.4 percent from its 2022 same quarter value of PhP 0.90 billion. (Table 3)

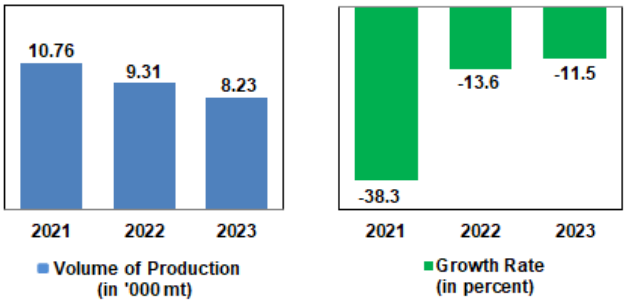
d. The average farmgate price of cavalla rose to PhP 168.42 per kilogram or an increase of 10.0 percent from its average farmgate price of PhP 153.06 per kilogram in the same period of the previous year. (Table 4)

20. Fimbriated sardines (Tunsoy)

a. During the first quarter of 2023, a total of 8.23 thousand metric tons production was registered for fimbriated sardines. This level represents a reduction of -11.5 percent from the same quarter of 2022 output of 9.31 thousand metric tons. (Figure 25 and Table 2)

b. Fimbriated sardines production contributed 0.8 percent to the overall fisheries production this quarter. (Table 2)

Figure 25. Volume and Annual Growth Rate of Fimbriated Sardines Production, Philippines: January to March 2021 to 2023P



P - preliminary
mt - metric ton
Sources: Philippine Statistics Authority, QCFS and QMFS

c. The gross national earnings of fimbriated sardines production during the first quarter of 2023 was recorded at PhP 0.57 billion or 30.3 percent higher than the previous year's same period earnings of PhP 0.44 billion. (Table 3)

d. Fimbriated sardines posted an average farmgate price of PhP 68.84 per kilogram. In comparison to the previous year's same period quotation of PhP 46.75 per kilogram, it exhibited a double-digit increase of 47.3 percent. (Table 4)

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 (4) 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 data also include 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

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 percent of the total number of landing centers in the province with a minimum of three (3) sample landing centers. If the total boats in a landing center is greater than eight (8), 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

      <u>PSU Weight</u>

      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:

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

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_{imjk} - 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

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 fish production 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*

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 percent of the total number of landing centers in the province but with a minimum of 3 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:

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

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_{himjk} - 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

The estimate of the stratum and 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 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

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 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 wih 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 percent of the total number of aquafarms with five (5) 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 (3) 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 (3) 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 (3) 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 PSA has adopted a policy on revision of estimates approved under the then National Statistical Coordination Board (NSCB) Resolution No.7 dated May 18, 2005. It basically informs producers and users of agricultural statistics generated by the PSA that revision of quarterly estimates on the agricultural production, prices, and related statistics be limited to the immediately preceding quarter and for the past three (3) years with quarterly breakdown to be done only during May of the current year. This happens when additional statistics and/or indicators are made available to support the change in the original data.

VI. Citation

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VII. Contact Information

Ms. REINELDA P. ADRIANO
Chief Statistical Specialist
Fisheries Statistics Division
(02) 83762063
r.adriano@psa.gov.ph

For data request, you may contact:
Knowledge Management and Communications Division
(02) 8462-6600 loc. 820
info@psa.gov.ph | kmcd.staff@psa.gov.ph

Table 1. Volume of Fisheries Production by Subsector: Philippines
January to March 2021 – 2023P

Subsector	Volume of Production (metric tons)			Percent Change (%)		Percent Share to Total Volume of Fisheries Production (%)
	2021	2022	2023P	2022/2021	2023P/2022	2023
Fisheries	973,622.41	971,763.46	991,136.74	-0.2	2.0	100.0
Commercial Fisheries	192,672.43	177,143.30	170,595.52	-8.1	-3.7	17.2
Municipal Fisheries	257,991.46	258,015.51	274,904.85	0.01	6.6	27.7
Marine	220,678.52	218,965.16	240,425.61	-0.8	9.8	24.3
Inland	37,312.94	39,050.35	34,479.24	4.7	-11.7	3.5
Aquaculture	522,958.52	536,604.65	545,636.37	2.6	1.7	55.1

P - preliminary
Note: Percent change and percent share may yield different results when computed manually due to rounding.
Sources: Philippine Statistics Authority, Quarterly Commercial Fisheries Survey, Quarterly Municipal Fisheries Survey, Quarterly Inland Fisheries Survey, and Quarterly Aquaculture Survey

Table 2. Volume of Fisheries Production by Species: Philippines
January to March 2021 – 2023[P]

Species	Volume of Production (metric tons)			Percent Change (%)		Percent Share to Total Volume of Fisheries Production (%)
	2021	2022	2023[P]	2022/2021	2023[P]/2022	2023
Fisheries	973,622.41	971,763.46	991,136.74	-0.2	2.0	100.0
Milkfish (Bangus)	67,219.23	58,696.47	62,570.48	-12.7	6.6	6.3
Tilapia	96,614.98	90,439.69	100,226.48	-6.4	10.8	10.1
Tiger prawn (Sugpo)	8,281.23	7,348.86	5,566.79	-11.3	-24.3	0.6
Skipjack (Gulyasan)	67,658.80	53,898.22	54,684.21	-20.3	1.5	5.5
Roundscad (Galunggong)	41,632.37	40,793.41	35,287.78	-2.0	-13.5	3.6
Seaweed	339,505.33	370,483.64	366,757.45	9.1	-1.0	37.0
Yellowfin tuna (Tambakol/Bariles)	17,081.94	18,357.81	19,281.59	7.5	5.0	1.9
Mudcrab (Alimango)	8,231.83	6,188.17	3,860.10	-24.8	-37.6	0.4
Frigate tuna (Tulingan)	22,889.92	21,693.57	15,408.85	-5.2	-29.0	1.6
Big-eyed scad (Matangbaka)	26,797.04	25,232.66	26,728.40	-5.8	5.9	2.7
Bali sardinella (Tamban)	55,953.86	55,633.06	55,595.81	-0.6	-0.1	5.6
Squid (Pusit)	10,369.16	11,559.88	13,667.12	11.5	18.2	1.4
Blue crab (Alimasag)	6,600.94	6,052.34	6,685.84	-8.3	10.5	0.7
Bigeye tuna (Tambakol/Bariles)	3,527.11	3,827.98	2,487.88	8.5	-35.0	0.3
Grouper (Lapu-lapu)	3,759.34	4,000.37	4,163.67	6.4	4.1	0.4
Indian mackerel (Alumahan)	12,448.12	11,622.60	9,160.34	-6.6	-21.2	0.9
Threadfin bream (Bisugo)	8,148.26	10,818.46	8,331.34	32.8	-23.0	0.8
Slipmouth (Sapsap)	9,161.66	8,127.55	6,111.95	-11.3	-24.8	0.6
Cavalla (Talakitok)	6,317.41	5,908.35	4,973.75	-6.5	-15.8	0.5
Fimbriated sardines (Tunsoy)	10,763.28	9,305.37	8,233.70	-13.6	-11.5	0.8
Others	150,660.60	151,775.02	181,353.21	0.7	19.5	18.3

P - preliminary
Note: Percent change and percent share may yield different results when computed manually due to rounding.
Sources: Philippine Statistics Authority, Quarterly Commercial Fisheries Survey, Quarterly Municipal Fisheries Survey, Quarterly Inland Fisheries Survey, and Quarterly Aquaculture Survey

Table 3. Value of Fisheries Production at Current Prices by Species: Philippines
January to March 2021 – 2023[P]

Species	Value of Production at Current Prices ('000 PhP)			Percent Change (%)		Percent Share to Total Value of Fisheries Production (%)
	2021	2022	2023[P]	2022/2021	2023[P]/2022	2023
Fisheries	66,882,022.81	65,293,603.75	81,680,783.55	-2.4	25.1	100.0
Milkfish (Bangus)	7,679,626.54	6,886,661.47	8,540,122.87	-10.3	24.0	10.5
Tilapia	8,040,889.40	7,152,137.87	9,596,451.39	-11.1	34.2	11.7
Tiger prawn (Sugpo)	4,348,032.08	3,636,181.66	3,875,633.50	-16.4	6.6	4.7
Skipjack (Gulyasan)	5,546,254.90	4,403,655.43	6,373,000.27	-20.6	44.7	7.8
Roundscad (Galunggong)	3,352,361.05	3,661,316.30	4,008,087.50	9.2	9.5	4.9
Seaweed	2,543,647.89	2,929,890.13	3,700,051.51	15.2	26.3	4.5
Yellowfin tuna (Tambakol/Bariles)	2,283,450.10	2,505,091.40	3,610,516.18	9.7	44.1	4.4
Mudcrab (Alimango)	4,951,968.26	2,371,305.55	2,038,845.35	-52.1	-14.0	2.5
Frigate tuna (Tulingan)	1,984,468.23	2,087,601.52	2,098,251.37	5.2	0.5	2.6
Big-eyed scad (Matangbaka)	2,343,799.30	2,399,800.65	3,333,294.05	2.4	38.9	4.1
Bali sardinella (Tamban)	1,558,145.85	1,712,819.74	2,440,507.70	9.9	42.5	3.0
Squid (Pusit)	1,365,589.06	1,597,159.04	2,396,302.15	17.0	50.0	2.9
Blue crab (Alimasag)	1,021,062.03	1,212,241.05	1,202,379.29	18.7	-0.8	1.5
Bigeye tuna (Tambakol/Bariles)	543,449.33	621,708.45	390,213.65	14.4	-37.2	0.5
Grouper (Lapu-lapu)	703,642.59	761,133.44	816,509.95	8.2	7.3	1.0
Indian mackerel (Alumahan)	1,247,397.57	1,275,845.48	1,296,212.75	2.3	1.6	1.6
Threadfin bream (Bisugo)	1,098,105.95	1,807,545.65	1,579,774.16	64.6	-12.6	1.9
Slipmouth (Sapsap)	681,898.56	690,484.31	579,049.01	1.3	-16.1	0.7
Cavalla (Talakitok)	939,167.99	904,342.08	837,673.50	-3.7	-7.4	1.0
Fimbriated sardines (Tunsoy)	397,867.54	435,009.55	566,810.04	9.3	30.3	0.7
Others	14,251,198.59	16,241,672.98	22,401,097.36	14.0	37.9	27.4

P - preliminary
Note: Percent change and percent share may yield different results when computed manually due to rounding.
Sources: Philippine Statistics Authority, Quarterly Commercial Fisheries Survey, Quarterly Municipal Fisheries Survey, Quarterly Inland Fisheries Survey, and Quarterly Aquaculture Survey

Table 4. Average Farmgate Price by Species: Philippines, January to March 2021 – 2023P

Species	Average Price (PhP/Kg)			Percent Change (%)	
	2021	2022	2023P	2022/2021	2023P/2022
Fisheries					
Milkfish (Bangus)	114.25	117.33	136.49	2.7	16.3
Tilapia	83.23	79.08	95.75	-5.0	21.1
Tiger prawn (Sugpo)	525.05	494.80	696.21	-5.8	40.7
Skipjack (Gulyasan)	81.97	81.70	116.54	-0.3	42.6
Roundscad (Galunggong)	80.52	89.75	113.58	11.5	26.6
Seaweed	7.49	7.91	10.09	5.6	27.6
Yellowfin tuna (Tambakol/Bariles)	133.68	136.46	187.25	2.1	37.2
Mudcrab (Alimango)	601.56	383.20	528.18	-36.3	37.8
Frigate tuna (Tulingan)	86.70	96.23	136.17	11.0	41.5
Big-eyed scad (Matangbaka)	87.46	95.11	124.71	8.8	31.1
Bali sardinella (Tamban)	27.85	30.79	43.90	10.6	42.6
Squid (Pusit)	131.70	138.16	175.33	4.9	26.9
Blue crab (Alimasag)	154.68	200.29	179.84	29.5	-10.2
Bigeye tuna (Tambakol/ Bariles)	154.08	162.41	156.85	5.4	-3.4
Grouper (Lapu-lapu)	187.17	190.27	196.10	1.7	3.1
Indian mackerel (Alumahan)	100.21	109.77	141.50	9.5	28.9
Threadfin bream (Bisugo)	134.77	167.08	189.62	24.0	13.5
Slipmouth (Sapsap)	74.43	84.96	94.74	14.2	11.5
Cavalla (Talakitok)	148.66	153.06	168.42	3.0	10.0
Fimbriated sardines (Tunsoy)	36.97	46.75	68.84	26.5	47.3
Others	94.59	107.01	123.52	13.1	15.4

P - preliminary
Note: Percent change may yield different results when computed manually due to rounding.
Sources: Philippine Statistics Authority, Quarterly Commercial Fisheries Survey, Quarterly Municipal Fisheries Survey, Quarterly Inland Fisheries Survey, and Quarterly Aquaculture Survey

PSA

Fisheries Situation Report

For Inquiries:

PHILIPPINE STATISTICS AUTHORITY
PSA Complex, East Avenue, Diliman, Quezon City, Philippines 1101

Tel. No.+63(2) 84626600 loc. 820 • Telefax No.+63(2) 84626600 loc. 839

E-mail address: info@psa.gov.ph • kmcd.staff@psa.gov.ph