

# MANUAL OF OPERATIONS

---

---

## **QUARTERLY COMMERCIAL FISHERIES SURVEY**

---

---



**Republic of the Philippines**  
**PHILIPPINE STATISTICS AUTHORITY**  
**Quezon City**

## **FOREWORD**

The Quarterly Commercial Fisheries Survey (QCFS) is one of the activities of the Philippine Statistics Authority (PSA) conducted every quarter. This activity generates estimates of volume and value of production for commercial fisheries by species at the provincial, regional and national levels.

The outputs form part of the estimation for the performance of agriculture and eventually, of the National Accounts for the generation of GVA, GNP and GDP. The data sets generated out of this activity serve as basis for researches and policy formulation.

Results of the survey are disseminated mainly in the PSA CountryStat website through regular publications on Fisheries Situation Report (quarterly), Fisheries Statistics of the Philippines (annually) and Selected Statistics on Agriculture (annually).

This Manual of Operations will serve as guide and reference for the Statistical Researchers and Field Supervisors in the conduct of the survey.

LISA GRACE S. BERSALES, Ph.D.  
Undersecretary  
National Statistician and Civil Registrar General

Quezon City, Philippines

## TABLE OF CONTENTS

<b>TITLE</b>	<b>Page</b>
<b>A. INTRODUCTION</b>	<b>1</b>
1. The Quarterly Commercial Fisheries Survey (Traditional Landing Centers)	1
2. The Quarterly Commercial Fisheries Survey (PFDA, LGU and Privately Managed-Landing Centers)	1
<b>B. OBJECTIVES</b>	<b>1</b>
<b>C. METHODOLOGY</b>	<b>2</b>
1. Sampling Frame	2
2. Sampling Design	2
3. Sample size	2
4. Estimation Procedure	3
<b>D. GENERAL REMINDERS</b>	<b>4</b>
<b>E. INSTRUCTIONS ON HOW TO ACCOMPLISH QCFS Form 1</b>	<b>5</b>
<b>F. INSTRUCTIONS ON HOW TO ACCOMPLISH QCFS Form 2</b>	<b>7</b>
<b>Attachments:</b>	
Attachment 1 - QCFS Form 1	
Attachment 2 - QCFS Form 2	

# **THE QUARTERLY COMMERCIAL FISHERIES SURVEYS**

## **A. INTRODUCTION**

### **1. The Quarterly Commercial Fisheries Surveys (Traditional Landing Centers)**

The Quarterly Commercial Fisheries Surveys (Traditional Landing Centers) is a quarterly survey on the volume of fish unloadings and the price of fish by species. This is conducted as alternative to an every other day survey, which may not be regularly conducted due to insufficient funding. The Provincial Statistical Office (PSO) staff assigned to conduct the survey visits the sample landing center and gathers data on a quarterly basis, but the information that is collected is about monthly fish unloadings.

### **2. The Quarterly Commercial Fisheries Surveys (Philippine Fisheries Development Authority (PFDA), Local Government Unit (LGU) and Privately-Managed Landing Centers)**

Another activity being done is the gathering of data from the records of PFDA, LGU and privately managed landing centers. This is also done by the Provincial Statistical Office (PSO) staff on a quarterly basis, but information being collected is each of the three (3) months included in the reference quarter..

## **B. OBJECTIVES**

The general objective of the surveys is to generate information on the monthly volume and value of fish unloadings by species at the provincial, regional and national levels.

The specific objectives are to:

- a. generate statistics on quantity of fish unloading by species by month;
- b. price per kilogram of fish unloadings by species by month; and
- c. determine reasons for high or low volume of fish unloading.

## **C. METHODOLOGY**

### **1. Sampling Frame**

The sampling frames used for the Quarterly Commercial Fisheries Surveys are:

- a. list of traditional landing centers by province updated from 2000 to 2010
- b. list of PFDA, LGU and Privately-managed landing centers from 2000 to 2010

The frames cover all regions of the Philippines except the Cordillera Administrative Region (CAR) but includes the National Capital Region (NCR).

### **2. Sampling Design**

The quarterly survey in traditional landing centers uses stratified random sampling with the province as the domain. The volume of unloadings is the variable used in the stratification of the fish landing centers into three (3) groups, namely;

- Stratum 1 – the top producing fish landing center in the province;
- Stratum 2 – the major producing fish landing centers; and,
- Stratum 3 – all the other fish landing centers.

The Quarterly Commercial Fisheries Survey in PFDA, LGU and Privately managed landing centers is complete enumeration.

### **3. Sample size**

For year 2016, there are 58 provinces with commercial fishing operations. The target sample size is 188 traditional landing centers proportionately distributed in the 58 provinces nationwide.

All PFDA, LGU and privately managed landing centers are completely covered.

#### 4. Estimation Procedure

Estimate of fish unloadings in the province is obtained from:

**a. the estimate from the quarterly survey in the traditional landing centers**

$$\hat{Y}_{pt} = \sum_{i=1}^3 \frac{N}{n} \sum_{n=1}^n \sum_{k=1}^5 \frac{Y_{ijk}}{5}$$

Where:

$\hat{Y}_{pt}$  = estimate of the volume of fish unloadings in the province from traditional *landing* centers

$N$  = total number of landing centers in the *i*th stratum

$n$  = number of sample landing centers in the *i*th stratum

$Y_{ijk}$  = volume of fish unloaded of the *k*th respondent in the *j*th landing center in the *i*th stratum for the quarter.

**b. data gathered from PFDA, LGU and privately managed landing centers**

$$\hat{Y}_{po} = \sum_{i=1}^N Y_i$$

Where:

$\hat{Y}_{po}$  = estimate of the volume of fish unloadings in the province from other landing centers (i.e, PFDA, LGU and privately managed landing centers)

$N$  = total number of other landing centers

$Y_i$  = volume of fish unloaded in the LGU, FDA or privately managed landing centers

Thus, the provincial estimate for the province is:

$$\hat{Y}_p = \hat{Y}_{pt} + \hat{Y}_{po}$$

Where:

$\hat{Y}_p$  = estimate of total volume of unloadings in the province during the reference quarter

$\hat{Y}_{pt}$  = estimate of the volume of fish unloadings in the province from the traditional landing centers during the reference quarter.

$\hat{Y}_{po}$  = estimate of the volume of fish unloadings in the province from other landing centers (i.e, PFDA, LGU and Privately managed landing centers) during the reference quarter.

## D. GENERAL REMINDERS

1. Conduct the survey in the sample traditional fish landing center on a quarterly basis, but gather information for each of the three (3) months included on the reference quarter. Get data from all PFDA, LGU and privately managed landing centers.
2. At the landing center, find five (5) eligible respondents. Respondent could be a fisherman, trader or broker who knows the unloading activities in the sample landing center.

Inquiries should be made on the total unloadings for the entire landing center including those outside the usual/identified unloading time.

3. Submit Quarterly Commercial Fisheries Survey Narrative Report
  - a. General Situation

Submit narrative report on the important factors or unusual phenomenon affecting the volume of unloadings in the landing center as well as the problems encountered during the field operation.

b. Marine Species Situation Report

Indicate the reasons for the increase or decrease of the volume and price of marine species during the quarter.

4. Submit all accomplished survey forms and summary sheets to the Fisheries Statistics Division (FSD) after data encoding in the data generation system.

**E. INSTRUCTIONS ON HOW TO ACCOMPLISH QUARTERLY COMMERCIAL FISHERIES SURVEY FORM 1 (QCFS Form1)**

**QUARTERLY COMMERCIAL FISHERIES SURVEY FORM 1 (QCFS Form1) – (Traditional Landing Centers)** is a one (1) page listing sheet type of form. Please see Attachment 1.

One (1) form is intended for one (1) respondent and covers three (3) months data.

\_\_\_\_\_ Quarter 20 \_\_. Write the reference quarter.

The upper left block of the form asks for information common to all the landing/unloading boats in the landing center.

**Region**

Write the name of the region.

**Province**

Indicate the name of the province.

**Landing Center**

Write the complete name of the sample landing center.

**Respondent Name**

Write the complete name of the respondent

**Type of Respondent**

Enter the code of the type of respondent found at the left bottom part of the form.

**Stratum or Landing Center Classification**

Encircle code 1 if the sample landing center belongs to Stratum 1.  
Encircle code 2 if the sample landing center belongs to Stratum 2.  
Encircle code 3 if the sample landing center belongs to Stratum 3.

**Column 1 - Species**

This column lists all kinds of species. If species unloaded are assorted, allocate all fish catch unloaded among the dominant species.

**Column 2 - 4 Actual volume of fish unloadings at the fish landing center**

Enter under this column the quantity in kilograms of each species identified in Column 1 by month.

**Column 5 - Total**

This is computed by the processing system

**Columns 6-8 - Price per Kilogram**

Enter under this column the price per kilogram of species reported by month.

**Column 9 - Average**

This is computed by the processing system

**Others (Specify)**

Specify other species unloaded at the landing center which are not identified in the list of 31 species.

**Reasons for high or low volume of unloadings/Remarks:**

Indicate reasons for decrease or increase of unloadings compared to last year of the same quarter and other relevant observations in the landing center during the visit.

**FOR THE PROVINCIAL STATISTICAL OFFICE (PSO) STAFF:**

**PSO STAFF** - Sign over printed name

**DATE** - Write the date of data collection.

**FOR THE SUPERVISOR:**

**SUPERVISOR** - Sign over printed name

**DATE** - Write the date when the questionnaire was reviewed.

## **F. INSTRUCTIONS ON HOW TO ACCOMPLISH QUARTERLY COMMERCIAL FISHERIES SURVEY FORM 2 (QCFS Form2)**

**QUARTERLY COMMERCIAL FISHERIES SURVEY FORM 2 (QCFS Form2) – (PFDA, LGU and Privately-Managed Landing Centers)** is a one (1) page listing sheet type of form. Please see Attachment 2.

One (1) form is intended for one (1) one landing center and covers one (1) month information.

Month: Quarter 20 \_\_. This is the reference month, write the month when the data is gathered.

The upper left block asks for information common to all the landing/unloading boats in the landing center.

### **1. Region**

Write the name of the region.

### **2. Province**

Indicate the name of the province.

### **3. Fish Port**

Write the complete name of the fish port or landing center and check the appropriate classification whether PFDA, LGU-managed or Private.

### **4. Classification of Boat**

Check the appropriate box as to the classification of the boat:

- a. Philippine-flagged vessels
- b. Foreign-flagged vessels

Indicate the name of fishing ground/s for each boat.

Fishing Ground/s – areas in any body of water where fish and other aquatic resources congregate and become target of capture

**Column 1 - Species**

This column lists all kinds of species. If species unloaded are assorted, allocate all fish catch unloaded among the dominant species.

**Column 2 - 7 Fishing Gear**

Indicate the name of fishing gear in the appropriate space and enter the actual volume of fish unloaded for each species identified in Column 1 by month.

**Column 8 – Total (Kg)**

Indicate the total volume of species in kilogram.

**Column 9 - Price per Kilo**

Enter under this column the price of species reported in kilogram.

**Others (Specify)**

Specify other species unloaded at the landing center which are not identified in the list of 31 species. Indicate the English name together with the local name.

**Total**

Indicate the total volume of unloadings by gear type.

**Number of Boats by Gear**

Indicate the total number of boats that unloaded in the landing center by gear type.

**Note: Use additional sheet if necessary.**

**FOR THE PROVINCIAL STATISTICAL OFFICE (PSO) STAFF:**

**PSO STAFF** - Sign over printed name

**DATE** - Write the date of data collection.

**FOR THE SUPERVISOR:**

**SUPERVISOR** - Sign over printed name.

**DATE** - Write the date when the questionnaire was reviewed.

**THANK YOU AND GOOD LUCK!**