

MANUAL OF OPERATIONS

QUARTERLY MUNICIPAL FISHERIES SURVEY



Republic of the Philippines
PHILIPPINE STATISTICS AUTHORITY
Quezon City

FOREWORD

The Quarterly Municipal Fisheries Survey (QMFS) 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 municipal 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.

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THE QUARTERLY MUNICIPAL FISHERIES SURVEYS

A. Introduction

1. The Quarterly Municipal Fisheries Survey (Traditional Landing Centers)

The Quarterly Municipal Fisheries Survey (QMFS) at Traditional Landing Centers is a survey on volume and price of fish, by species, unloaded by fishing boats three (3) gross tons or less. The Provincial Statistics Office (PSO) staff gathers quarterly data for the entire sample landing center with information on monthly fish unloadings.

***Landing center** – place where the fish catch and other aquatic products are unloaded and traded. Traditional landing center is a type of landing center where fishermen could unload their catch and/or dock their fishing boats without any obligation or payment for the use of the place.*

2. The Quarterly Municipal Fisheries Survey (PFDA and LGU-Managed Landing Centers)

Another activity is gathering of data on volume and price of fish from administrative records of Philippine Fisheries Development Authority (PFDA) and Local Government Unit (LGU)-managed landing centers. This is also done by the Provincial Statistics Office staff on a quarterly basis with information for three (3) month period.

B. Objectives

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

The specific objectives are to generate statistics on the following:

- a. quantity of fish unloadings; and
- b. price per kilogram of fish unloadings by species;

C. Methodology

1. Sampling Frame

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

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

As of 2010, there are 8,492 traditional municipal fish landing centers, four (4) PFDA –managed fish ports and 13 LGU-managed landing centers where municipal fishing boats unload and trade their catch.

2. Sampling Design

The quarterly survey at 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) strata, 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 Municipal Fisheries Survey at PFDA and LGU- managed landing centers is complete enumeration.

3. Sample size

For year 2015, there are 67 provinces with municipal fishing operations. The target sample size is 840 landing centers proportionately distributed in the 67 provinces nationwide. Number of sample landing centers for Stratum 1 is 207 out of 275, for Stratum 2, 358 out of 1,986 and for Stratum 3, 258 out of 6,231.

All PFDA and LGU-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

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

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_{ij} = volume of fish unloaded in the j^{th} landing center in the i^{th} stratum for the quarter

- b. data gathered from PFDA and LGU - 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 LCs (i.e. PFDA and LGU – managed LCs)

N = total number of other landing centers

Y_i = volume of fish unloaded at the PFDA and LGU – managed LCs

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
PFDA and LGU – managed landing centers during
the reference quarter

D. General Reminders

1. Conduct Quarterly Municipal Fisheries Survey during the 3rd week of the last month of the reference quarter.
2. Conduct the survey in sample traditional fish landing center on a quarterly basis with three (3) months information. Collect data from all PFDA and, LGU-managed landing centers.
3. Look for five (5) respondents at the sample landing center.. Respondent could be a fisherman, trader or broker who is knowledgeable on fishing activities for the entire sample landing center.

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

4. Submit Quarterly Municipal Fisheries Survey Narrative Report

Part 1. General Situation

Report on the important factors or unusual phenomenon that affect the volume of unloadings and price of species at the landing center. Include in the report problems encountered during the field operation.

Part 2. Marine Species Situation Report

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

5. Encode survey returns in Municipal Fisheries Data Generation System worksheets. The system generates the survey results or estimates which serve as inputs to Data Review at the provincial, regional and national levels.
6. Submit all accomplished survey forms to the Fisheries Statistics Division (FSD) after the Provincial Data Review (PDR)
7. Observe submission dates of all reports required by the Fisheries Statistics Division.

E. INSTRUCTIONS ON HOW TO ACCOMPLISH QUARTERLY MUNICIPAL FISHERIES SURVEY FORM 1 (QMFS Form1)

QUARTERLY MUNICIPAL FISHERIES SURVEY FORM 1 (QMFS 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.

Region. Write the name of the region.

Province. Indicate the name of the province.

Landing center. From the list of samples, write the complete name of the fish landing center.

Respondent name. Write the complete name of the respondent following the family name, first name format.

Type of respondent. Write the type of respondent. The different types of respondent may either be fisherman, boat owner/operator, trader/broker, landing center caretaker. Specify the type of respondent if other than those mentioned.

Stratum or landing center classification. Encircle code as to the classification of the landing center.

Code 1 – if the sample landing center belongs to Stratum 1.
Code 2 – if the sample landing center belongs to Stratum 2.
Code 3 – if the sample landing center belongs to Stratum 3.

Column 1. Species. This is the list of most common species unloaded by fishermen at the landing centers. These species were selected based on volume of annual unloadings at the national level.

Others (Specify). Indicate the English name together with the local name of other species not identified in the list of 31 species but unloaded at the landing center.

Columns 2 -4. Actual volume of fish unloadings at the fish landing center. Enter under these columns the quantity of unloadings in kilograms by species by month. Be sure that the data is entered at the correct row of species.

Column 5. Total. This is computed by the processing system

Columns 6-8. Price per kilogram. Enter under these columns the corresponding price per kilogram of species reported by month.

Column 9. Average. This is computed by the processing system

Reasons for change/remarks. Indicate reasons for the decrease or increase in unloadings and price compared to same quarter last year. Include other relevant observations in the landing center during the visit.

FOR THE PSO STAFF:

PSO staff. Signature of the staff over the printed name.

Date. Write the date of data collection.

FOR THE SUPERVISOR:

Supervisor. Signature of the supervisor over the printed name.

Date. Write the date when the questionnaire was reviewed.

F. INSTRUCTIONS ON HOW TO ACCOMPLISH QUARTERLY MUNICIPAL FISHERIES SURVEY FORM 2 (QMFS Form2)

QUARTERLY MUNICIPAL FISHERIES SURVEY FORM 2 (QMFS Form2) – (PFDA and LGU- 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 _____ **20** __ . Write the reference month when the data is gathered.

The upper left block 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.

Fishing ground. Write the name of the fishing ground.

Fishing ground – area in any body of water where fish and other aquatic resources congregate and become target of capture.

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

Column 1. Species. This is the list of most common species unloaded by fishermen at the landing centers. These species were selected based on volume of annual unloadings at the national level.

Others (Specify). Indicate the English name together with the local name of other species not identified in the list of 31 species but unloaded at the landing center.

Columns 2-7. Fishing gear. Indicate the actual volume of fish unloadings in kilogram by fishing gear type.by species. Be sure that the data is entered at the correct row of species.

Fishing gear – any instrument or device and its accessories utilized in taking fish and other fishery species.

Column 8. Total (kg). Indicate the total volume by species in kilogram.

Column 9. Price per kilogram. Enter under this column the price per kilogram of species.

Total. Get the sum or total volume of unloadings by gear type.

Number of boats by gear. Indicate the total number of boats that unloaded catch at the landing center by gear type.

Note: Use additional sheet if necessary.

FOR THE PSO STAFF:

PSO staff. Signature of PSO staff over the printed name

Date. Write the date of data collection.

FOR THE SUPERVISOR:

Supervisor. Signature of the Supervisor over the printed name

Date. Write the date when the questionnaire was reviewed.

THANK YOU AND GOOD LUCK!

