Republic of the Philippines
Philippine Statistics Authority Board

PSA Board Resolution No. 16
Series of 2021

APPROVING AND ADOPTING THE NEW SAMPLING DESIGN OF THE QUARTERLY COMMERCIAL FISHERIES SURVEY (QCFS)

WHEREAS, Executive Order (EO) No. 352, "Designation of Statistical Activities That Will Generate Critical Data for Decision Making of the Government and the Private Sector" issued on 01 July 1996, established the System of Designated Statistics (SDS) in the Philippine Statistical System;

WHEREAS, the SDS is a mechanism that identifies and designates the most critical and essential statistics required for social and economic planning/analysis based on approved criteria;

WHEREAS, the Quarterly Commercial Fisheries Survey (QCFS) is one of the statistical activities conducted quarterly by the PSA, and is included in the SDS;

WHEREAS, the QCFS is the main source of data on volume and value of commercial fisheries production at the national, regional, and provincial levels;

WHEREAS, the current sampling design of the QCFS uses a sampling frame based on the list of commercial traditional fish landing centers (LCs);

WHEREAS, the major limitations of the current sampling design include the following: (a) Not all fishing operators have the chance to be selected; non-probabilistic selection of key informants (KI); (b) Data are not based on actual catch of the day, and instead, it relies on recall of the KI for a monthly catch in a given quarter for the whole landing center (recall bias); and (c) There are other information not included in the estimates such as the number of fishing days in a month (affected by weather), and total number of fishing boats in a given day.

WHEREAS, the abovementioned limitations of the current sampling design of the QCFS were the motivations in the redesigning to come up with more efficient sampling design for the survey;

WHEREAS, after series of reviews, simulation of various possible scenarios and conduct of pilot survey, a Probability Proportional to Size Systematic Sampling (PPS-Sys) Two-Stage Survey is proposed with the following details:

(a) The landing center is the sampling unit and the selection method is Two-stage Probability Proportional to Size Systematic Sampling;

(b) The domain is province and 25% of the total landing centers are taken as sample for each province;

(c) The second stage is the selection of commercial boat operators or SSUs using systematic sampling wherein the sample is based on the following criteria:

    i. sample of eight (8) boats if total boats is greater than eight (8); or
    ii. complete enumeration if total boats is less than or equal to eight (8).

(d) A panel sample of landing centers is maintained for a year, and for the succeeding years and if operating under a limited budget, a combination of sampling and model-based estimation will be implemented. For the top 80% producing provinces, survey- based estimation will be employed for three months in a quarter. Meanwhile, for the bottom 20% provinces, survey-based estimation will be done for one (1) month, and a model-based estimation for the remaining two (2) months in a quarter.

WHEREAS, the proposed design has the following advantages: (a) increases precision of estimates as confirmed in the results of the pilot survey, thus generating more reliable commercial fishery statistics; and (b) ensures representativeness of drawn samples and use of appropriate measure of size for the survey, and the use of the latest available sampling frame;

WHEREAS, the Interagency Committee on Agriculture and Fishery Statistics (IACAFS) endorses the proposed new sampling design of the QCFS for approval of the PSA Board;

WHEREAS, the PSA shall implement the use of the proposed sampling design of the QCFS starting first quarter of 2022, once the same is approved by the PSA Board;
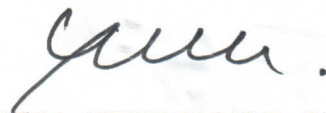
NOW, THEREFORE, BE IT RESOLVED, that the PSA Board hereby approves the adoption of the new sampling design for the QCFS with the following details, to wit:

(a) The landing center is the sampling unit and the selection method is Two-stage Probability Proportional to Size Systematic Sampling;

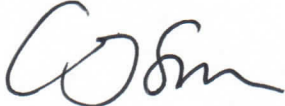(b) The domain is province and 25% of the total landing centers are taken as sample for each province;

(c) The second stage is the selection of commercial boat operators or SSUs using systematic sampling wherein the sample is based on the following criteria:

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(d) A panel sample of landing centers is maintained for a year, and for the succeeding years and if operating under a limited budget, a combination of sampling and model-based estimation will be implemented. For the top 80% producing provinces, survey-based estimation will be employed for three months in a quarter. Meanwhile, for the bottom 20% provinces, survey-based estimation will be done for one (1) month, and a model-based estimation for the remaining two (2) months in a quarter.

Approved this 9th day of November 2021, in Metro Manila.

KARL KENDRICK T. CHUA
Secretary of Socioeconomic Planning
National Economic and Development Authority
Chairperson, PSA Board

Attested by:

CLAIRE DENNIS S. MAPA, Ph.D.
Undersecretary
National Statistician and Civil Registrar General
Philippine Statistics Authority
Chairperson, PSA Board Secretariat