



REPUBLIC OF THE PHILIPPINES
PHILIPPINE STATISTICS AUTHORITY BOARD

**PSA Board Resolution No. 09
Series of 2020**

**APPROVING AND ADOPTING THE NEW SAMPLING DESIGN OF THE
QUARTERLY INLAND FISHERIES SURVEY (QIFS)**

WHEREAS, the Quarterly Inland Fisheries Survey (QIFS) is a statistical activity conducted quarterly by the Philippine Statistics Authority (PSA) and is the main source of data for volume and value of inland fisheries production by species and by quarter at the regional and provincial levels;

WHEREAS, the current sampling design for the QIFS is a one-stage sampling design using simple random sampling without replacement (SRSWOR) with inland fishing household as the primary sampling unit (PSU). The domains are the provinces except Batanes and one Highly Urbanized City (Davao City). Ten (10) inland fishing households are selected as sample per domain. However, some domains with more diverse fishing grounds have more than 10 sample households which is for the purpose of approximately representing the population. The QIFS does not employ sample rotation, thus the sample households are the same for all survey rounds. The current sampling design uses the 2002 Listing of Inland Fishing Households as the sampling frame.

WHEREAS, because of the changes in the behavior of inland fishing in the country after almost three decades since the current sampling design was developed, some of the features of the current sampling design no longer conform to the present inland fishing situation. Specifically, the major limitations of the current sampling design are as follows:

- i. the simplicity of the current design assumes that the inland fishing household population per domain is relatively homogeneous. However, based on the results of the 2012 Census of Agriculture and Fisheries (CAF), the inland fishing households show large variability among barangays, for all domains. This large variability is more than enough to put the current sampling design in question; and
- ii. the use of same sample for all rounds of the survey increases response burden and does not allow updating of farming status of other households.

WHEREAS, the abovementioned limitations of the current sampling design of the QIFS were the motivations in the redesigning of the sampling design for a more efficient and representative survey;

WHEREAS, after series of reviews, simulation of various possible scenarios and conduct of pilot survey, the proposed methodology is a combination of survey-based and model-based estimation where the provinces that produce 90% of total catch are to be surveyed for all quarters. The remaining provinces are to be surveyed only on the quarter with peak catch. Model-based estimation will be used for provinces that will not be surveyed for the quarter.

WHEREAS, the proposed design has the following advantages: (a) the improvement of precision in estimates as confirmed in the results of the pilot survey, thus generating more reliable inland fisheries statistics; (b) use of the latest available sampling frame which is the 2012 CAF; (c) reduction in response burden and updating of farming status of more households because of the rotation of samples; and (d) reduction of budgetary requirement with the use of combined survey-based and model-based estimation procedures;

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

NOW, THEREFORE, BE IT RESOLVED, that the PSA Board hereby approves the adoption of the combined survey-based and model-based estimation as sampling design for the QIFS with the following details, to wit:

- (1) For the *survey-based* estimation, a two-stage sampling design with barangay as the PSU and inland fishing household as the secondary sampling unit (SSU) shall be done. The barangay selection method is probability proportional to size (PPS) sampling with the total number of inland fishing households in the barangay as measure of size. Households are selected by SRSWOR. The number of sample barangays is 10% of the total number of inland fishing barangays in the province and 10 sample households will be selected from each sample barangay. However, in sample barangays where the total number of inland fishing households is less than 10, all the inland fishing households are included in the sample for the barangay;
- (2) Rotation of samples is done annually for barangays and quarterly for fishing households. However, while the COVID-19 pandemic continues to affect mobility, sample fishing households are rotated annually to enable the use of mobile phone interview using the household phone numbers obtained during the conduct of the first quarter survey; and
- (3) For the *model-based* approach, all provinces will be surveyed for all quarters for the Year 1 of implementation. A model for estimating inland fishing production will then be developed using the data generated during Year 1. From Year 2 onwards, only the top 90 percent producing provinces (based on Year 1 data) will be surveyed for all quarters. For the other provinces, data will be collected only in one (1) quarter with peak catch. The catch for other quarters will be estimated using the model to be developed.

Approved this 21st day of December 2020, in Metro Manila.



KARL KENDRICK T. CHUA
Acting Secretary
National Economic and Development Authority
Chairperson, PSA Board



Attested by:



DENNIS S. MAPA
Undersecretary
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