

TECHNICAL NOTES

2022 Census of Agriculture and Fisheries Agriculture Farm and Parcel Characteristics

Introduction

The Census of Agriculture and Fisheries (CAF) is a large-scale government undertaking, geared towards the collection and compilation of basic information on the agriculture and fishery sectors in the Philippines. Over the years, the CAF has been a source of comprehensive statistics on agriculture for the use of the general public, government, business industry, research, and academic institutions.

The Philippine Statistics Authority (PSA) conducted the 2022 CAF among households and non-household entities that operated agriculture, aquaculture, and fishing activities from 01 January to 31 December 2022. Household and barangay interviews for the 2022 CAF were conducted in September 2023, while non-household interviews were conducted in May 2023.

The 2022 CAF was the seventh in a series of decennial agricultural census and the sixth in the decennial census of fisheries in the country since the first census in 1903. It was designed to collect the structural characteristics of the agricultural and fishery sectors in the country.

The Philippine Standard Geographic Code (PSGC), as of December 2022 was used to disaggregate geographic levels of the 2022 CAF.

Data Limitation

The statistics presented in this report were based on the information provided by the respondent or any responsible household member who may provide accurate answers to the questions and give correct information about the agricultural activities operated during the reference period.

Likewise, the statistics presented are based on responses from all households in 16,020 sample barangays in the country, which represent about 38 percent of the 42,046 total barangays in the country as of December 2022.

The data referring to agricultural holdings/farms in this report were tabulated according to the agricultural holder's/operator's residence, while data referring to holding/farm parcels were tabulated according to their geographic/actual location.

Objectives

The 2022 CAF is envisioned to achieve the following objectives:

1. Determine the structural characteristics of agriculture and fishery sectors in the country.
2. Provide sampling frame for the conduct of periodic agricultural and fishery surveys.
3. Provide basic data on agricultural, aquaculture, and fishing characteristics for use in the government's national and local development planning.
4. Provide data on the agricultural, aquaculture, and fishery facilities and services available in the barangay.

Methodology

This section discusses the methods of enumeration for the 2022 CAF, starting with the scope and coverage, data collection methods, sampling scheme, and estimation procedure.

SCOPE AND COVERAGE

In line with the objectives of 2022 CAF, the following are the scope and coverage:

A. Listing and Enumeration

The units of enumeration for the 2022 CAF are the households, barangays, and non-household units.

Barangay Interviews

1. Coverage of all barangays in all municipalities

Household Interviews

1. Coverage of sample barangays in all municipalities
2. Listing of all households in the sample barangays to determine if there is any household member engaged in operating a crop/livestock/poultry (including culturing of insects/worms) farm, aquafarm, and/or fishing operation.
3. Enumeration of all households with agricultural, aquaculture, and fishing operators during the period 01 January 2022 to 31 December 2022 in sample barangays.
4. Enumeration of all agricultural, aquaculture, and fishing operators in sample barangays.

Non-Household Interviews

1. Enumeration of all agricultural, aquaculture, and fishing establishments/organizations with crop farm, livestock/poultry farm (including culturing of insects/worms), aquaculture operation, and fishing operation during the period 01 January 2022 to 31 December 2022.

The target respondents and 2022 CAF questionnaires used for interviews by unit of enumeration are the following:

Table 1. Scope and Coverage of 2022 CAF

Enumeration Unit	Target Respondents	CAF Form	Data Collection Method
1. Household	● head of the household or his/her spouse or	CAF Form 1 <i>Listing Booklet</i> CAF Form 2	Main Method: Computer-Assisted

Enumeration Unit	Target Respondents	CAF Form	Data Collection Method
	<ul style="list-style-type: none"> any responsible member of the household who can provide accurate information about the household and all its members 	<i>Household Questionnaire</i>	Personal Interview (CAPI)
	<ul style="list-style-type: none"> operator or any responsible member of the household who can provide complete and accurate information about the agricultural farm, aquaculture operation, or fishing operation 	CAF Form 3 <i>Questionnaire for Agriculture</i> CAF Form 4 <i>Questionnaire for Aquaculture</i> CAF Form 5 <i>Questionnaire for Fishing</i>	Alternative Method: Paper and Pen Personal Interview (PAPI)
2. Barangay	<ul style="list-style-type: none"> Punong Barangay or any incumbent barangay official 	CAF Form 6 <i>Barangay Questionnaire</i>	Main Method: PAPI Alternative Method: CAPI
3. Non-Household	<ul style="list-style-type: none"> representatives of establishments, institutions, cooperatives, and government agencies/corporations where primary/secondary/ ancillary activities include crop farming, raising livestock and poultry, aquaculture, 	CAF Form 7 <i>Non-Household Questionnaire Agriculture - Growing of Crops</i> CAF Form 8 <i>Non-Household Questionnaire Agriculture - Livestock/Poultry Raising and</i>	Self-Administered Questionnaires (SAQ)

Enumeration Unit	Target Respondents	CAF Form	Data Collection Method
	and fishing can act as respondents	<i>Culturing Insects/Worms</i> CAF Form 9 <i>Non-Household Questionnaire</i> Aquaculture CAF Form 10 <i>Non-Household Questionnaire</i> Fishing	

B. Reference Period

All households in the sample barangay were listed and interviewed to determine the presence of household members who were **operators** – those who managed or operated crops, livestock/poultry and/or insects/worms, aquaculture, and/or fishing activity – during the period **01 January to 31 December 2022**. The identified operators were interviewed to collect data on the basic characteristics of their agricultural, aquaculture, and/or fishing activities using the Core Questionnaires. The reference period for household characteristics and inventory of livestock and poultry is **01 September 2023**.

Likewise, all non-household entities with crop farm, livestock and poultry farm (including culturing of insects/worms), aquaculture operation, and fishing operation during the reference period **01 January to 31 December 2022** and have an economic value were also covered in 2022 CAF, which was a rider to the 2023 Updating of the List of Establishments (2023 ULE). They were asked to accomplish the 2022 CAF non-household questionnaires to collect data on the details of their agricultural, aquaculture, and fishing activities. These include the farm and fisheries operations for commercial, personal consumption, and research purposes.

Moreover, for barangay interviews, the Punong Barangay or acting Punong Barangay or any incumbent barangay official was interviewed to gather information on the presence/availability of facilities, input dealers, and service providers related to agriculture, aquaculture, and fisheries in all barangays (including non-sample barangays).

C. Sampling Scheme (Household)

The 2022 CAF sampling design for the household data collection considers provinces and highly urbanized cities (HUCs) as the domains, barangays as the primary sampling units (PSUs), and households (and operators) as the secondary sampling units (SSUs). Barangays were selected using simple random sampling without replacement (SRSWOR) and all households in a selected sample barangay were completely enumerated.

The design included a two-way stratification of barangays based on the number of agriculture (growing of crops, livestock raising, and poultry raising) operators and the number of fishing (aquaculture, municipal fishing, and commercial fishing) operators as the stratification variables. This stratification was based on the number of operators from the 2012 CAF and 2017 Updating of List of Aquaculture Farms (ULAF). Barangays were categorized into Low, Medium, and High groups based on generated cut-offs using the adjacent means algorithm. Barangays without agriculture or fisheries operators from the 2012 CAF were placed in a fourth stratum (None).

The cross-classification of these two stratification schemes determined the final stratum for each barangay, as illustrated in the table below:

Table 2. Stratification of Barangays for 2022 CAF

	Stratum Based on the Number of Agricultural Operators (Crops, Livestock, Poultry)				
		None	Low	Medium	High
Stratum Based on the Number of Fisheries Operators (Aquaculture, Municipal Fishing, Commercial Fishing)	None	L	L	M	H
	Low	L	L	M	H
	Medium	M	M	H	H
	High	H	H	H	H

All barangays in Stratum "H" were completely enumerated (100%), while a 50.0 percent sample was selected from Stratum "M", and a 5.0 percent sample from Stratum "L".

Sample selection of barangays was conducted for all provinces and highly urbanized cities (HUCs), except the National Capital Region (NCR), where districts were used as the domain. Additionally, three provinces (Pangasinan, Iloilo excluding Iloilo City, and Bukidnon) were purposively selected for full enumeration.

Furthermore, one to two additional sample barangays were purposively selected in each city and municipality where only one or no sample barangay had been initially selected. This process ensured that there were at least two sample barangays in all cities and municipalities across the country. The selection of these additional barangays considered the prevalence of agriculture and fisheries activities in the area.

D. Weights Computation

The base weight for each domain is given by:

$$w_{hk} = \frac{N_h}{n_h}$$

where:

w_{hk} = base weight of the k^{th} barangay in the h^{th} stratum

N_h = total number of barangays in the h^{th} stratum

n_h = total number of sample barangays in the h^{th} stratum

h = refers to the stratum

The base weight was adjusted to account for the stratum jumper due to the changes in the number of agricultural and fisheries operators.

The adjusted weight formula is given as follows:

$$w_{hk} = \frac{N_h - z_{h0}}{n_h - z_{h0}}$$

where:

w_{hk} = base weight of the k^{th} barangay in the h^{th} stratum

N_h = total number of barangays in the h^{th} stratum

n_h = total number of sample barangays in the h^{th} stratum

z_{h0} = total number of outbound stratum jumpers in the h^{th} stratum

E. Estimation Procedure

In each domain, which is the province/HUC, there are three strata (High, Medium, and Low) based on the number of agriculture operators and fisheries operators.

Let B_l = number of barangays in stratum, $l = 1 (H), 2 (M), 3 (L)$

b_l = number of sample barangays in stratum l .

Since all households (hence, operators) are completely enumerated in a sample barangay,

let y_{Ijl} = total for indicator I in sample barangay $j = 1, \dots, b_l$ in Stratum l .

The estimate of total for the domain (province/HUC) for indicator I is:

$$Y_{PI} = \sum_{j=1}^{b_1} y_{Ij1} + \sum_{l=2}^3 \frac{B_l}{b_l} \sum_{j=1}^{b_l} y_{Ijl}$$

Variance is given by:

$$V(Y_{PI}) = 0 + \sum_{l=2}^3 \frac{B_l^2}{b_l^2} S_{Il}^2$$

where

$$S_{Il}^2 = \frac{1}{B_l} \sum_{j=1}^{B_l} (y_{Ijl} - \underline{Y}_{Il})^2$$

and \underline{Y}_{Il} = mean for indicator I in Stratum l . The variance is estimated by

$$s_{Il}^2 = \frac{1}{b_l} \sum_{j=1}^{b_l} (y_{Ijl} - \underline{y}_{Il})^2 \left[1 - \frac{n_l}{N_l}\right]$$

where \underline{y}_{Il} is the sample mean for indicator I in Stratum l .

Note that B_l and b_l can be adjusted with actual number of barangays that provides a non-zero value for the indicator I . The weights are then computed as follows:

For Stratum 1: $w_{jl}=1$ (since stratum 1 is the certainty stratum, all barangays are completely enumerated)

For Stratum 2 and 3: $w_{jl} = \frac{B_l}{b_l}$ (same weights for all samples within the same stratum since samples are drawn using simple random sampling without replacement.)

No additional component of variance is added to variance of estimates from sampling of operators since all operators are completely enumerated in a sample barangay.

V. Definition of Terms and Concepts

Household

A household is a social unit consisting of a person or a group of persons who sleep in the same housing unit and have a common arrangement in preparing and consuming food.

Agricultural Operator

An agricultural operator is a civil or juridical person who/that exercises management control over the agricultural operation of a farm and takes

major decisions regarding resource use. He/she has technical and economic responsibility for the farm and may undertake all responsibilities directly, that is, he/she operates the farm or delegates responsibilities related to day-to-day work management to a hired manager. Economic responsibility means major decision in using the finances in operating the farm.

An agricultural operator could be the owner or tenant/lessee of the farm who is solely responsible for making the major decisions of the operation of the agricultural farm, including the management and supervision of hired labor.

Meanwhile, a person hired to supervise the day-to-day activities on the farm owned by another household or by a non-household is NOT a CROP FARM OPERATOR for the 2022 CAF. He/she is called a hired manager.

Agricultural Holding/Farm

An agricultural holding/farm is any piece or pieces of land used wholly or partly for any agricultural activity such as growing of crops, tending of livestock/poultry and other agricultural activities and operated as one technical unit by one person alone or with others regardless of title, legal form, size or location. An agricultural holding/farm operated as one technical unit means that the piece/s of land is/are operated under a single management and that the financial resources needed for the operation of the agricultural holding/farm come from the said management. Generally, an agricultural holding/farm operated as one technical unit has the same factors of production such as land, labor, farm structures, machinery, work animals, etc. Single management means one individual or household or jointly by two or more individuals or households or by a juridical person such as a corporation, cooperative or government agency operates and manages the agricultural holding/farm.

The characteristic of all holdings/farms reported by agricultural operators were collected, regardless of the size of the agriculture farm.

Parcel

A parcel is one contiguous piece of land under one form of tenure without regard to land use. Both the contiguity and one form of tenure conditions should be met for a piece of land to be classified as one parcel.

Contiguous means that the piece of land is not separated by natural or manmade boundaries. A parcel may be surrounded by other lands, water, road, forest or other features that are not part of the farm or part of the farm under different land tenure.

Examples of natural boundaries are river, dike, lake, mountain, forest, and any physical features of the land that are not part of the farm. Meanwhile, example of manmade boundaries are road, political boundaries (e.g., barangay, municipal, and provincial borders), houses, irrigation canal, and any man-made structures that are not part of the farm.

Tenure Status of the Parcel

It is the right under which a parcel is held or operated. A farm may be operated under a single form of tenure or under more than one form, in which case each form of tenure must be reported separately by parcel.

A parcel may have any of the following tenure status:

Fully owned	A land operated with a title of ownership in the name of the holder and consequently, the right to determine the nature and extent of the use of the land. Included in this category are lands whose absolute ownership is vested in the holder through sale or inheritance. A parcel, which is a part of the farm, is also considered fully owned if the holder has an absolute deed to the sale of the land. Likewise, lands of the tillers with Emancipation Patent are considered fully owned.
Owner-like possession	A land under conditions that enable a person to operate it as if he/she is the owner although he/she does not possess a document as proof of title of ownership. A land under owner-like possession includes those that are held under heirship which the document as proof of title of ownership has not been

	transferred to the heirs. Also included in this category are inherited lands without document as proof of title of ownership and those held under tax declaration. Further, this category also includes areas without legal title of ownership which is operated uncontestedly and uninterruptedly by the holder for a period of 30 years or more, even without the permission of the owner, and lands being purchased on installment basis or under long-term contract.
Tenanted	A land cultivated by a person, belonging to, or possessed by another, with the latter's consent for purposes of production, sharing the produce with the landholder under the share tenancy system, or paying to the landholder a certain amount of produce (payment in kind or in money or both), under a leasehold tenancy system.
Leased/ Rented	A land cultivated by a lessee, which belongs to or is legally possessed by another, the lessor. The rental payment is in the form of a fixed amount of either money, produce or both.
Rent-free	A land operated without title of ownership and without paying rent but with the consent or permission of the landowner.
Held under Certificate of Land Transfer (CLT)	A land still being paid by the holder under the government land reform program of Operation Land Transfer (OLT).
Held under Certificate of Ancestral Domain Title (CADT)/ Certificate of Ancestral Land Title (CALT)	A land possessed by the Indigenous Cultural Communities/ Indigenous Peoples (ICCs/IPs) in accordance with Republic Act 8371 of the Indigenous Peoples Rights Act (IPRA) of 1997. CADT refers to a title formally recognizing the rights of possession and ownership of ICCs/IPs over their ancestral domains identified and delineated in accordance with RA 8371. This also includes lands of ICCs/IPs held under the Memorandum of Usufruct (MOU). According to the Civil Code of the Philippines, the usufruct is entitled to all the benefits he may enjoy or get from the property but limits the right of ownership. CALT, on the other hand, is a title formally recognizing the rights of ICCs/IPs over their ancestral lands.

Held under Community-Based Forest Management Agreement (CBFMA)	CBFMA is also a production sharing agreement between (and entered into by) the government and the local community, represented by participating people's organization as forest managers for a period of 25 years renewable for another 25 years, and shall provide tenurial security and incentives to develop, utilize, and manage specific portions of forest lands.
Certificate of Stewardship Agreement (CSA)/ Certificate of Stewardship Contract (CSC)	The Certificate of Stewardship Contract is a contract issued by Department of Environment and Natural Resources (DENR) to individual occupants in the Integrated Social Forestry (ISF) areas before the implementation of the CBFM program in 1996 pursuant to Letter of Instruction 1260 which provide tenure over the parcel of forestland for a period of 25 years, renewable for another 25 years.
Other Tenure Status	Refers to lands held as mortgage and all other lands not falling under tenure status not categorized from 01 to 09 above, including lands under IFMA, FLGA, SLUP, lands occupied without consent of owner for less than 30 years and forest land occupied by a person without any agreement with the DENR. Refer to Subsection 6.7.3 for the detailed discussion of this category.

Physical Area of the Parcel

Physical area of the parcel refers to the size or actual measurement of the land.

Legal Status of the Agricultural Operator

This refers to the form of organization under which the agricultural activity is undertaken. An agricultural farm may be operated by a single management, which is any of the following:

Individual/Sole Proprietorship	a farm is operated by a person on his/her own account who may be the landowner, lessee, or tenant
Partnership without formal and written agreement	a farm may be operated by civil persons, either by a single individual, or jointly by several individuals (group of civil persons), without a formal or contractual agreement

(jointly with one or more than one household)	
Partnership with formal and written agreement (not registered in the Securities and Exchange Commission)	a farm may be operated by civil persons, either by a single individual, or jointly by several individuals (group of civil persons), with a formal or contractual agreement not registered in the Securities and Exchange Commission (SEC)
Other Legal Status	includes tribes, clans, and others.

Main Use of the Parcel

This refers to the main use of the land parcel such as growing crops, raising livestock or cultivating/culturing fish, and other agricultural activities carried out on the parcel making up the holding with the intention of obtaining products and/or benefits.

The categories for the main use of the parcel are as follows:

Under Temporary Crops	Refers to land planted to crops that are grown seasonally and whose growing cycle is less than one year, and which must be sown or planted again for production after each harvest; lands planted with herbaceous forage crops mainly for sale even if part of the produce is used as feeds for livestock; as well as parcels planted to “ <i>kangkong</i> ”, “ <i>alogbati</i> ”, and similar plants whose growing cycle may be a year or less and need not be replaced after each harvest. The parcel planted to crops, which are grown for more than a year, but have to be replaced after harvesting like cassava and pineapple is also classified under this category.
Under Permanent Crops	Refers to land cultivated with long-term crops which do not have to be replanted for several years; land under trees and shrubs; and nurseries (except those for forest trees, which should be classified under “forest and other wooded land”). Land under permanent crops also

	includes land used for growing permanent crops under protective cover such as coconut trees covering cacao trees. On the other hand, land under permanent meadows and pastures is excluded from this category.
Under Temporary and Permanent Crops	A mixture of land uses in a parcel or field where permanent and temporary crops are grown together as associated crops.
Temporarily Fallow	Refers to arable land at prolonged rest before re-cultivation to regain fertility for the coming years. The prolonged rest may be part of the farm's crop rotation system or because the normal crop cannot be planted due to flood damage, lack of water, and unavailability of inputs or other reasons.
Under Temporary Meadows and Pastures	Includes land temporarily cultivated with herbaceous forage crops for mowing or pasture for a period of less than five years.
Under Permanent Meadows and Pastures	Includes land used permanently (for five years or more) to grow herbaceous forage crops, through cultivation or naturally (as wild prairie or grazing land).
Covered with Wood and Forest	<p>Refers to a part of the farm that is wood or forestland, natural or planted. Example of this is the land planted with trees such as ipil-ipil, shrubs, and other non-fruit trees. Nurseries of forest trees and wood or forestland used only for recreational purposes should be reported under this category. DO NOT INCLUDE FOREST CONCESSION.</p> <p>Forest concession refers to tract of forestland under license agreement, lease, or permit which are timbered or have good residual stocking to support an approved to be established or existing wood processing plant.</p>
Under Livestock and Poultry Raising	The land is built with pigpen, poultry house, livestock house, and other farm structures used in livestock/poultry raising.

Homelot	Means that the land is used mainly for residential purposes of the agricultural operator but is also used for agricultural purposes, regardless of its location.
Under Aquaculture	Refers to the part of the farm utilized for the operation of land-based aquafarm such as fishpond, fish tanks, and hatchery or <i>pangitlugan</i> .
Public land	Refers to lands that are part of a public domain such as roadside, forest lands, communal grazing lands, among others.
Other Land Use	Other land use may refer to lands used for culturing of insects and worms, undeveloped lands, potentially productive lands for agriculture, wastelands, and other lands not included in the preceding land use classifications. Wasteland comprises barren rocky land, sloping areas, and others which are used for any productive purposes.

VI. Authority for the Conduct of the 2022 CAF

Republic Act (RA) No. 10625 (Philippine Statistical Act of 2013), which was approved on 12 September 2013, states that “the PSA shall be primarily responsible for all national censuses and surveys, sectoral statistics, consolidation of administrative recording system, and compilation of national accounts”. Specifically, **Section 6(b)** of this Act mandates the PSA to “prepare and conduct periodic censuses on population, housing, agriculture, fisheries, business, industry, and other sectors of the economy”.

Executive Order (EO) No. 352 (Designation of Statistical Activities that Will Generate Critical Data for Decision-Making of the Government and the Private Sector) provides for the conduct of CAF every 10 years with the objective of providing government planners and policymakers with data on which to base their plans for the country’s development.

VII. Data Privacy

RA No. 10173 (Data Privacy Act of 2012) stipulates, that “It is the policy of the State to protect the fundamental human right of privacy, of communication while ensuring free flow of information to promote innovation and growth. The State recognizes the vital role of information and communications technology in nation-building and its inherent obligation to ensure that personal data in information and communications systems in the government and in the private sector are secured and protected”.

Corollary to the above, **Section 4(e) of RA No. 10173** states that the right of privacy does not apply to “information necessary in order to carry out the functions of public authority, which includes the processing of personal data for the performance by the independent agencies of their constitutionally and statutorily mandated functions”. Moreover, **Section 12(e)** of this Act states that the processing of personal information shall be permitted only if not otherwise prohibited by law, and when the processing is necessary in order to fulfill functions of public authority, which necessarily includes the processing of personal data for the fulfillment of its mandate. Further, **Section 19 of RA No. 10173** provides for the non-applicability of the rights of the data subject if the processed personal information is used only for the needs of scientific and statistical research and on the basis of such, no activities are carried out and no decisions are taken regarding the data subject.

VIII. Confidentiality of Information

All personnel involved in the conduct of 2022 CAF are required to keep in **STRICT CONFIDENCE** any information obtained during the census that pertains to any particular household, individual person, or establishment/organization.

Section 26 of RA No. 10625 stipulates that “individual data furnished by a respondent to statistical inquiries, surveys, and censuses conducted by the PSA shall be considered **PRIVILEGED COMMUNICATION** and as such shall be inadmissible as evidence in any proceeding”. This section also specifies that “the PSA release data gathered from censuses only in

the form of **summaries or statistical tables**, in which **no reference to an individual, corporation, association, partnership, institution or business enterprise shall appear**".

Paragraph 3 of Section 27 of RA No. 10625 further states that "a person, including parties within the PSA Board and the PSA, who breach the confidentiality of information, whether by carelessness, improper behavior, behavior with malicious intent, and use of confidential information for profit shall be liable to a **fine** of five thousand pesos (PhP 5,000.00) to not more than ten thousand pesos (PhP 10,000.00) and/or **imprisonment** of three months but not to exceed one year, subject to the degree of breach of information".

Section 19 of RA No. 10173 states that the personal information shall be held under **STRICT CONFIDENTIALITY** and shall be used only for the declared purpose. Likewise, the provisions on data privacy are not applicable to processing of personal information gathered for the purpose of investigations in relation to any criminal, administrative, or tax liabilities of a data subject.

Moreover, **Section 20(e) of RA No. 10173** stipulates that "the employees, agents, or representatives of a personal information controller who are involved in the processing of personal information shall operate and hold personal information under **STRICT CONFIDENTIALITY** if the personal information are not intended for public disclosure. This obligation shall continue even after leaving the public service, transfer to another position or upon termination of employment or contractual relations".

Sections 26 to 29 of RA No. 10173 also assert that the breach in the confidentiality of information, whether negligence, improper disposal, behavior with malicious intent, unauthorized access or intentional breach, and unauthorized disclosure, shall be penalized by **imprisonment** ranging from six months to seven years and a **fine** of not less than one hundred thousand pesos (PhP 100,000.00) but not more than seven million pesos (PhP 7,000,000.00), depending on the acts defined in these Sections.

Also, in compliance with **RA No. 10173**, individual personal information collected from the census shall be secured and protected. Necessary data security measures such as, but not limited to, data encryption, data

anonymity, and other data protection methods shall be employed to prevent unintended disclosure and data theft.

IX. Comparability of 2022 CAF with Past Censuses

The 1960, 1971, 1980, 1991, 2002, 2012, and 2022 Census of Agriculture used the same concepts, definitions, scope and coverage. However, some differences in the reference periods and sample design should be taken into account when comparing data across the census years.

Data Items Compared	1960	1971	1980	1991	2002	2012	2022
Farm Definition	*	*	**	*	*	*	*
Reference Period	Jul 1959 - Jun 1960	Jul 1970 - Jun 1971	Jan - Dec 1980	Jan - Dec 1991	Jan - Dec 2002	Jan - Dec 2012	Jan - Dec 2022
Sampling Design							
Method	Stratified systematic sampling	Stratified systematic sampling	Stratified systematic sampling	Stratified systematic sampling	Stratified systematic sampling	Full Census	Stratified simple random sampling without replacement
Domain	City/ Municipality	City/ Municipality	City/ Municipality	City/ Municipality	City/ Municipality	N/A	Province and Highly Urbanized City
Primary Sampling Unit	Barangay	Barangay	Barangay	Barangay	Barangay	N/A	Barangay
Ultimate Sampling Unit	Household	Household	Household	***	***	N/A	***
Number of Strata	2	2	2	2	3	N/A	3
Stratum 1	Area of at least 1,000 sqm. to 10 ha.	5 ha. or over, at least 20 heads of livestock, 100 or more poultry	Large farms (see note below)	Barangay with highest TFA or certainty barangay	Certainty barangays in 1991 CAF		Barangays with high presence of agricultural and/or fisheries operators Barangays with medium presence of agricultural and fisheries operators
Stratum 2	Area > 10 ha.	Area of at Least 1,000	Small farms	Other	All other barangays		Barangays with medium

Data Items Compared	1960	1971	1980	1991	2002	2012	2022
	or at least 20 heads of livestock/ 100 poultry	sq m. to < 5 ha.	(see note below)	barangays or non-certainty barangays	covered in 1991 CAF		presence of agricultural or fisheries operators
Stratum 3					All other barangays		Barangays with none and low presence of agricultural and fisheries operators
Sample Size						N/A	
Stratum 1			100%	100%	100%		100%
Stratum 2			10%	50%	25%		50%
Stratum 3					25%		25%

Notes:

* All land regardless of size used for growing of crops and/or raising livestock and poultry

** With the following specific and detailed farm definitions:

- a. at least 1,000 sq. m. devoted to crops,
- b. at least 10 hectares were under permanent meadows/pastures,
- c. at least 10 heads of large animals such as carabao, etc., regardless of age and kind, were raised,
- d. at least 20 heads of small animals such as hogs, etc., regardless of age and kind, were raised,
- e. at least 100 heads of poultry such as chicken, etc., regardless of age and kind, were raised,
- f. at least 50 heads of rabbits, regardless of age and kind, were raised, and
- g. the combination of land area and animal raised amounting to at least 10 agricultural units was used.

One agricultural unit is equivalent to one-tenth of the cut-off in each of the aforementioned categories.

A farm was considered large if any of the following was satisfied:

- a. area devoted to crops was at least 4 hectares,
- b. area under permanent meadows/pastures was at least 20 hectares,
- c. at least 10 heads of large animals such as carabao, etc., regardless of age and kind, were raised,
- d. at least 50 heads small animals such as hogs, etc., regardless of age and kind, were raised,
- e. at least 500 heads of poultry such as chicken, etc., regardless of age and kind, were raised, and
- f. at least 50 heads of rabbits, regardless of age and kind, were raised.

Farms that did not satisfy any of the above conditions were considered small farms.

*** All households in the barangay were listed and all household members engaged in agricultural/fisheries activity as operators were enumerated.

X. Dissemination of Results

The 2022 CAF preliminary release and statistical tables are publicly available at the PSA website, <https://psa.gov.ph/statistics/caf>

XI. Citation

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XII. Contact Information

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