

Census of Agriculture 2023

Statistics Indonesia (BPS, Badan Pusat Statistik)

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Identification

SURVEY ID NUMBER
IDN_2023_SP_v01_M_v01_A_ESS

TITLE
Census of Agriculture 2023

ABBREVIATION OR ACRONYM
SP 2023

COUNTRY

Name	Country code
Indonesia	IDN

STUDY TYPE
Agricultural Census [ag/census]

SERIES INFORMATION
The first Census of Agriculture (SP, Sensus Pertanian) of Indonesia was conducted in 1963 and, since then, every ten years. The 2023 census was the seventh census of agriculture conducted in the country.

ABSTRACT
The agricultural sector has the potential to significantly contribute to the national economy of Indonesia. Therefore, collecting and providing accurate and timely data on this sector is crucial as it can support the government and stakeholders in planning and developing policies for both domestic interests and national development. The Census of Agriculture 2023 provides essential statistical data on the state of the agricultural sector designed to produce results that align with international standards.

KIND OF DATA
Census/enumeration data [cen]

UNIT OF ANALYSIS
Agricultural holdings

Scope

NOTES
The census scope covered agricultural production (crop and livestock), aquaculture, capture fisheries and forestry activities. Activities covered by the census were classified into seven subsectors: food crops, horticulture crops, estate crops, livestock, fishery, forestry, and agricultural services.

The questionnaires collected data on:

1. Geographical and establishment information
2. Establishment management information
3. Total land area of agricultural holding
4. Temporary crops (food crops, horticulture, and estate crops)
5. Permanent crops (horticulture and estate crops)
6. Livestock
7. Forestry
8. Fisheries
9. Services for agriculture and agricultural practices
10. Worker in agriculture holding
11. Management in agricultural holding

KEYWORDS

Keyword

Land
Crops
Livestock and poultry
Forestry
Fisheries

Coverage

GEOGRAPHIC COVERAGE

The enumeration was conducted in all regions of Indonesia in both urban and rural areas.

UNIVERSE

The statistical unit was the agricultural holding, defined as the unit that raises, controls, or engages in agricultural activities to sell/exchange some or all its products bearing the economic risks associated with production and including holdings that cultivate food crops exclusively for household consumption (e.g., self-sufficient farmers). Three types of holdings were covered by the census:

- individual agricultural holding, managed by one person who has technical, juridical, and economic responsibility for the agricultural holding
- agricultural corporation, which are enterprises conducting permanent and continuous agricultural activities, established to make a profit, and legally protected or permitted by the authorized agency
- other agricultural holdings, which are agricultural enterprises managed by neither an individual nor an agricultural corporation, formed based on common interests, similar social/economic/resource condition, and fellowship to improve the productivity of farming and the welfare of its members in jointly managing agricultural land on one expanse or certain area, including Islamic boarding schools, correctional institutions, government/private offices, military complexes, and farmer groups engaged in joint farming activities

Producers and sponsors

PRIMARY INVESTIGATORS

Name
Statistics Indonesia (BPS, Badan Pusat Statistik)

Sampling

SAMPLING PROCEDURE

The Census of Agriculture 2023 was carried out with complete enumeration.

Local Administrative Units (LAU) were used during fieldwork in the implementation of the Census of Agriculture (SP, Sensus Pertanian) 2023. The LAUs, each accounting for approximately 200 households, were derived from the Population Census 2020 and updated in 2022. LAUs constituted the designated working area (Statistical Work Area) for enumerators for SP 2023. The pre-printed lists with the names and addresses of heads of households from the Population Census 2020 identified the presence of agricultural holdings (especially individual agricultural holding).

Areas with a concentration of agriculture in the LAUs were identified using estimated data from the 2022 update of the Statistical Work Area master framework (Wilkerstat), which provided information on the total number of families and the number of agricultural families in each LAU and Non-LAU1 area. Furthermore, in 2022, the Agriculture Corporation and Other Agriculture Holding Directory was updated and a preliminary agricultural holding database including all types of holdings was prepared from various data sources obtained from relevant ministries such as the Ministry of Agriculture, the Ministry of Marine Affairs and Fisheries, and the Ministry of Environment and Forestry.

Data collection

DATES OF DATA COLLECTION

Start	End
2023-06-01	2023-07-31

DATA COLLECTION MODE

Computer Assisted Personal Interview [capi], Computer Assisted Web Interview [cawi], Pen and Paper Interview [papi]

DATA COLLECTION NOTES

The Flexible and Authentic Survey Instrument Harmony (FASIH), an app developed and owned by Statistics Indonesia (BPS, Badan Pusat Statistik), was used for data collection. The Wilkerstat application, an application built internally by BPS, was used for mapping purposes.

Individual agricultural holdings were enumerated through the door-to-door method in rural areas and in LAU agricultural concentration areas, and through the snowball method in non-agricultural concentration urban areas. Further, the interview method adopted with individual agricultural holdings was based on internet availability: PAPI was used throughout the country except in provincial capitals and the entire Jakarta region, where the CAPI method was employed.

Bulk emails were sent to agriculture corporations with instructions to complete an online questionnaire. For agricultural corporations and other agricultural holdings, listed in the preliminary list, one method among CAWI, CAPI, or PAPI was used depending to the preference of the respondent.

The implementation of Census of Agriculture 2023, from the planning stage to the dissemination of results, involved staff from relevant areas in the national and regional offices, including census office staff from subject matter specialists, administrative staffs, public relations and dissemination, IT and methodological teams commissioned with formulating and developing the census design, statistics standardization and classification, and statistical mapping. Fieldwork involved 33 839 supervisors, 160 198 enumerators, and 51 035 data processors for data collected through the PAPI method.

**QUALITY ASSURANCE **

Quality assurance was implemented through the Agricultural Census Data Quality Assurance Design. Different activities were carried out to ensure quality for the census during 2021 and 2022: association and inter-ministry meetings, urban farming discussions, academic discussions, meetings related to fertilizer subsidy policy, etc.

Through these activities, the masterplan (Network Planning) of the census was developed. Further, during those years, questionnaires were built, two pilot tests were performed during April and October 2021, and two pilot censuses were carried out during October 2021 and May 2022.

In March 2022, the geospatial framework and enumeration areas were updated. During the Census of Agriculture 2023, Quality Gates (QG) was established as a quality monitoring checkpoint at key stages of the statistical activity, anticipating potential data quality risks. To prevent the occurrence of widespread quality problems, the Quality Monitoring approach (Monitoring Kualitas) was also employed during the field data collection process, which ensures that any potential issues were identified and addressed promptly, thereby maintaining the accuracy and reliability of the data collected. Various methods were employed in the process, including revisits, supervision, quality assurance, and anomaly checking. A Post Enumeration Survey (PES) was also conducted from 9 August to 10 September 2023 as part of the overall evaluation process, providing a net coverage error rate of 7.7 percent.

questionnaires

QUESTIONNAIRES

Three questionnaires were used for the Census of Agriculture 2023, one for each type of agricultural holding. The CA 2023 covered 23 out of the 23 essential items recommended in the WCA 2020.

data_processing

DATA EDITING

The first stage of data editing entailed the integration of the data collected through the different data collection methods

into a single database, ensuring that there were no double enumerations, similar data, etc. After data integration, a data quality assessment was performed by searching for outliers and imputing, if necessary, using a query builder and a sandbox. Imputation was based on actual data confirmed by Statistics Indonesia Province and Statistics Indonesia Regency/City through staff that checked the data and informed the IT division to carry out imputation. Collaboration between the IT division and the subject matter divisions was carried out during the data imputation stage. This stage was carried out until data was obtained that met the expected quality.

DATA PROCESSING NOTES

Direct data capture was ensured by the CAPI and CAWI methods. The PAPI method required several additional stages after field data collection, namely: receiving, batching, editing, coding, data entry, validation, verification and tabulation. This process lasted three months. Data exploration was carried out with the support of sandbox technology.

Access policy

CONTACTS

Name	Email	URL
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ACCESS CONDITIONS

The data request procedure and conditions are available under "Kebijakan Diseminasi Statistik" (Statistics Dissemination Policy) at: <https://ppid.bps.go.id/app/konten/0000/Layanan-BPS.html>

Metadata production

DDI DOCUMENT ID

DDI_IDN_2023_SP_v01_M_v01_A_ESS_FAO

PRODUCERS

Name	Abbreviation	Affiliation	Role
Statistics Indonesia (Badan Pusat Statistik)	BPS		Metadata producer
Statistics Division	ESS	Food and Agriculture Organization of the United Nations	Metadata adapted for FAM
Development Data Group	DECDG	World Bank Group	Metadata adapted for World Bank Microdata Library

DDI DOCUMENT VERSION

Identical to a metadata (IDN_2023_SP_v01_M_v01_A_ESS) published on FAO microdata repository (<https://microdata.fao.org/index.php/catalog>). Some of the metadata fields have been edited.

data_dictionary

Data file	Cases	variables
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study_resources

questionnaires

Census of Agriculture 2023, Agricultural Holding Establishment, Questionnaire

title Census of Agriculture 2023, Agricultural Holding Establishment, Questionnaire
filename IDN_2023_SP_questionnaire1.pdf

Census of Agriculture 2023, Agricultural Holding Other Establishment, Questionnaire

title Census of Agriculture 2023, Agricultural Holding Other Establishment, Questionnaire
filename IDN_2023_SP_questionnaire2.pdf

Census of Agriculture 2023, Agricultural Holding, Individual Questionnaire

title Census of Agriculture 2023, Agricultural Holding, Individual Questionnaire
filename IDN_2023_SP_questionnaire3.pdf

reports

Indonesia - Agricultural Census 2023, Main Results 1

title Indonesia - Agricultural Census 2023, Main Results 1
filename IDN_2023_SP_main-results1.pdf

Indonesia - Agricultural Census 2023, Main Results 2

title Indonesia - Agricultural Census 2023, Main Results 2
filename IDN_2023_SP_main-results2.pdf

Horticulture Individual Agricultural Holdings, Report

title Horticulture Individual Agricultural Holdings, Report
filename IDN_2023_SP_report1.pdf

Forestry Individual Agricultural Holdings, Report

title Forestry Individual Agricultural Holdings, Report
filename IDN_2023_SP_report2.pdf

Food Crops Individual Agricultural Holdings, Report

title Food Crops Individual Agricultural Holdings, Report
filename IDN_2023_SP_report3.pdf

Livestock Individual Agricultural Holdings, Report

title Livestock Individual Agricultural Holdings, Report
filename IDN_2023_SP_report4.pdf

Estate Crops Individual Agricultural Holdings, Report

title Estate Crops Individual Agricultural Holdings, Report
filename IDN_2023_SP_report5.pdf

Fishery Individual Agricultural Holdings, Report

title Fishery Individual Agricultural Holdings, Report
filename IDN_2023_SP_report6.pdf

technical_documents

Methodology and Instructions

title Methodology and Instructions
filename IDN_2023_SP_methodology.pdf
