



Food and Agriculture
Organization of the
United Nations

SUSTAINABLE
DEVELOPMENT
GOALS



APCAS/24/C4.
4

ASIA AND PACIFIC COMMISSION ON AGRICULTURAL STATISTICS

30TH SESSION

19–24 May 2024
Kathmandu (Nepal)



BETTER
PRODUCTION



BETTER
NUTRITION



BETTER
ENVIRONMENT



BETTER
LIFE





MINISTRY OF ECONOMY
DEPARTMENT OF STATISTICS MALAYSIA

Asia and Pacific Commission on Agricultural Statistics 30th Session (APCAS30)

SIDE EVENT A:
Malaysia's Experiences with Planning & Implementing Agricultural Censuses

A.1: MALAYSIA'S PREPARATION TOWARDS AGRICULTURE CENSUS 2024

Presenter:

Dr. Mohd Uzir Mahidin
Chief Statistician Malaysia
(uzir@dosm.gov.my)





CONTENT

01 BACKGROUND

02 PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

03 WAY FORWARD



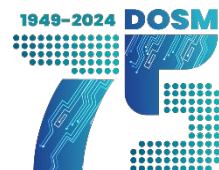
METADATA

Lead Ministry/Agency	Ministry of Economy (Department of Statistics Malaysia) and Ministry of Agriculture and Food Security of Malaysia
Key Data User/Ministry	<ul style="list-style-type: none">• Department of Statistics Malaysia, Ministry of Economy• Ministry of Agriculture and Food Security of Malaysia• Ministry of Plantation and Commodities• Ministry of Agriculture, Fisheries & Food Industry Sabah (MAFFI)• Ministry of Food Industry, Commodity and Regional Development (M-FICORD)
Legislative/Policy Mandate	<ul style="list-style-type: none">• Statistics Act 1965 (Revised-1989)• Census Act 1960 (Revised-1969)
Sub-Sectors Coverage	<ul style="list-style-type: none">• Crop farming;• Fisheries and aquaculture;• Forestry and logging; and• Livestock.
Data Collection Duration/Period	7 July - 10 October 2024
Reference period	Year 2023 for all sectors except number of livestock (as at 7 July 2024)
Methodological approach	Classical
Sources of Census Frames	<ul style="list-style-type: none">• Malaysia 2020 Population and Housing Census• Administrative records
Data Collection Method	Pen and Paper Interview (PAPI)
Use of Technology (IT)	<ul style="list-style-type: none">• Geospatial for frame preparation• MyAgricensus System for census data management

BACKGROUND



    
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STATISTIK NADI KEHIDUPAN



DEPARTMENT OF STATISTICS MALAYSIA (DOSM) ORGANISATION STRUCTURE

1949

Statistics Malaysia was established in 1949 under the provisions of the Statistics Ordinance 1949 and was known as the Bureau of Statistics

1965

The Bureau of Statistics has changed its name to the Department of Statistics Malaysia and operates under the provisions of the Statistics Act 1965.

2018

The Department of Statistics Malaysia is the main government agency under the Ministry of Economic Affairs

2020

10 March 2020, the Department of Statistics Malaysia has been placed back under the Prime Minister's Department - regulated by the Minister in the Prime Minister's Department (Economy)

2023

In parallel with the formation of the Unity Government, the Department of Statistics Malaysia is the main government agency under the Ministry of Economy

A premier government agency entrusted with the responsibility to collect, interpret and disseminate the latest and timely statistics.

LEGISLATION

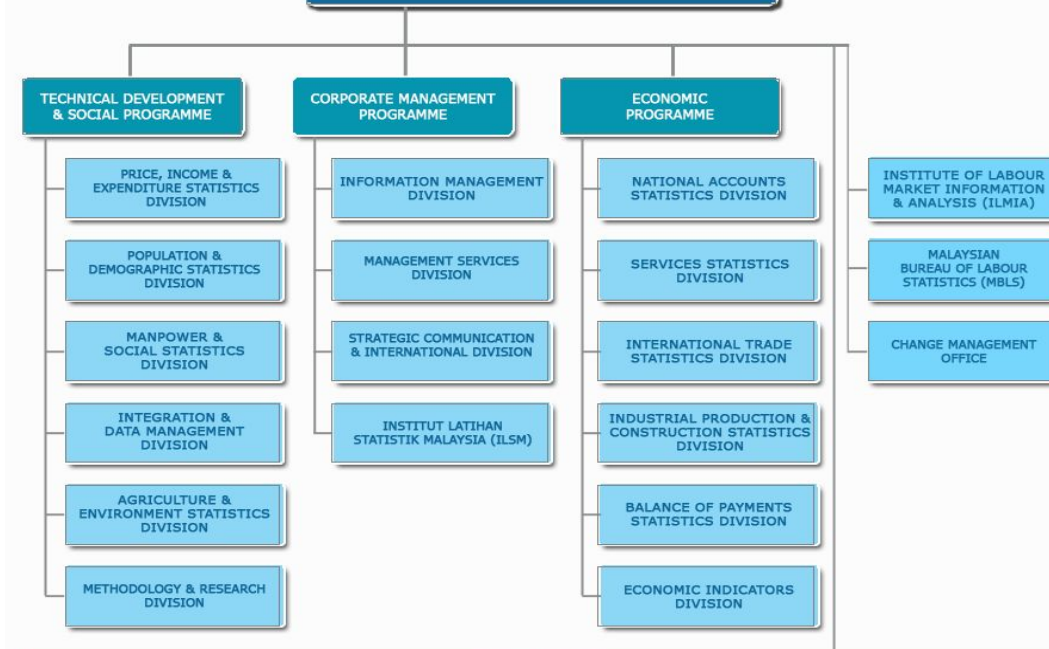
 LAWS OF MALAYSIA Act 415 STATISTICS ACT 1965 (REVISED-1989) Under the Statistics Act 1965 (Revised - 1989), the functions of DOSM [Section 2] are: To collect and interpret statistics for the purpose of formulation or implementation of government policies....	 LAWS OF MALAYSIA REPRINT Act 16 CENSUS ACT 1960 Incorporating all amendments up to 1 January 2006 Under Census Act 1960: The Yang di-Pertuan Agong may, by notification in the Gazette, from time to time direct that a census to be taken throughout Malaysia of the Population, Agriculture, and other country, Commerce....
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**Statistics Act 1965
(Revised-1989)**

**1960
(Revised-1969)**



CHIEF STATISTICIAN MALAYSIA



STATE OFFICE





BACKGROUND OF MALAYSIA'S ECONOMY STRUCTURE

STATISTICAL NEEDS OF AGRICULTURE SECTOR

1

The agricultural sector plays a crucial role in supporting the food security of the country.

2

The statistics of the agricultural sector are key to understanding the challenges, potential, and policy direction needed to achieve sustainable food security.

3

With good agricultural statistics in place, policy and planning towards ensuring the sustainability of national food security can be achieved.

PERCENTAGE CONTRIBUTION OF THE SECTOR TO MALAYSIA'S GROSS DOMESTIC PRODUCT (GDP) AT CONSTANT PRICES

Year	1970	1979	1989	1995	2019	2022	2023	Q1 2023
Base Year	1970=100	1970=100	1987=100	1987=100	2015=100	2015=100	2015=100	2015=100
Agriculture (%)	28.8	24.9	17.9	10.3	7.1	6.6	6.4	6.1
Mining and Quarrying (%)	6.9	4.9	10.2	8.2	7.2	6.4	6.2	6.5
Manufacturing (%)	14.6	18.4	23.3	27.1	22.2	24.1	23.4	23.6
Construction (%)	3.7	4.2	3.3	4.4	4.7	3.5	3.6	3.6
Services (%)	42.6	44.9	46	51.2	57.6	58.3	59.2	59
GDP (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



NATIONAL POLICIES AND AGENDA (RELATED TO AGRICULTURE)

THE TWELFTH MALAYSIA PLAN (12MP)

- Integrated efforts will be undertaken to revitalize all sectors of the economy, including services, manufacturing, agriculture, mining and quarrying, as well as construction;
- Enhancing productivity to sustain quality growth; and
- Boosting growth in strategic and high-impact industries, including smart agriculture.



NATIONAL AGROFOOD POLICY (NAP 2.0)

- Ensuring an adequate and safe food supply;
- Making the agrofood industry competitive and sustainable; and
- Enhancing the income level of farmers.



URBAN COMMUNITY FARM POLICY (DKKB)

- Developing systematic, organized, and sustainable urban community gardens in Malaysia;
- Coordinating cooperation among agencies and establishing a platform to encourage involvement and collaboration of all parties in the implementation of urban community gardens; and
- Encouraging communities to produce quality food to support daily needs.



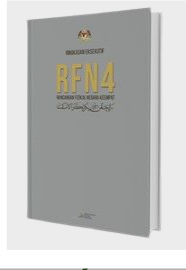
NATIONAL AGRICOMMODITY POLICY (DAKN2030)

- Emphasizing the enhancement of the circular economy of Agricommodity, covering eight commodities namely palm oil, rubber, timber, cocoa, pepper, plant-based fibers (kenaf and related fibers), biomass, and biofuels.



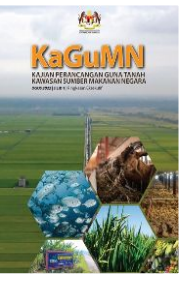
FOURTH NATIONAL PHYSICAL PLAN (RFN4)

- Giving special emphasis on determining the pattern of national physical planning; and
- Encompassing land use development patterns, economic growth, conservation and management of resources, integration and enhancement of national transportation networks and infrastructure, and the improvement of quality of life and national well-being.



NATIONAL FOOD SOURCE AREA LAND USE PLANNING STUDY (KaGuMN)

- Comprehensive document related to specific planning for national food security; and
- Preparing the Land Use Master Plan for the Conservation, Preservation, Restoration, and Enhancement of National Food Source Areas towards 2040.





MALAYSIA'S AGRICULTURE CENSUS OVERVIEW AND OBJECTIVES

1. PURPOSE

A comprehensive structure and characteristics of the agricultural sector for agriculture holdings.

2. AGRICULTURAL CENSUS 2024 4TH EDITION

- First : The Federation of Malaya and Sarawak (1960) and Sabah (1961);
- Second : Malaysia (1977); and
- Third : Malaysia (2005).

3. RESOLUTION

World Programme for the Census of Agriculture 2020 (WCA 2020) – Food & Agriculture Organization of the United Nations (FAO).

4. OBJECTIVES

01

Collecting **stocks and profiles of the agricultural sector** covering economic, social, and environmental dimensions for agricultural holdings;

02

Providing **primary input for formulating agricultural sector policies** by various stakeholders;

03

Serving as a **benchmark** in the preparation of agricultural sector indicators; and

04

Providing a **framework for sampling** agricultural holdings for future agricultural surveys.



EXPECTED OUTCOME

1. AGRICULTURE CENSUS DATABASE

- Integrated
- Agricultural value chain information (upstream - downstream)
- Regular updates

2. DATA INTEGRATION

- Integrating data from various sources
- Comprehensive and complete agricultural statistics

INPUT FOR NATIONAL AGENDA

- **The Twelfth Malaysia Plan (12MP)**
- **National Agrofood Policy 2021 – 2030**
- **National Agricommodity Policy 2021 – 2030**
- **National Forestry Policy/ Sarawak Forest Policy/ Sabah Forest Policy**
- **Urban Community Farm Policy National Food Security Policy Action Plan**

MEASUREMENT / INDICATOR

✓ Agricultural Statistical Indicators

- Demographic characteristics of agriculture
- Total production output
- Land area and localities
- Number of agriculture holdings

✓ Primary Statistical Indicators

- SSR, IDR, PCC
- FBS
- Land use rate
- Yield rate
- Environmental-related agricultural statistics

✓ Measurement of SDGs

- 7 out of 17 goals
- 21 agricultural indicators

✓ Agricultural Ecosystem

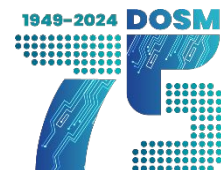
- Food security
- Modernization of the agricultural sector
- Empowerment of small-scale farmers

PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

1. Governance Framework



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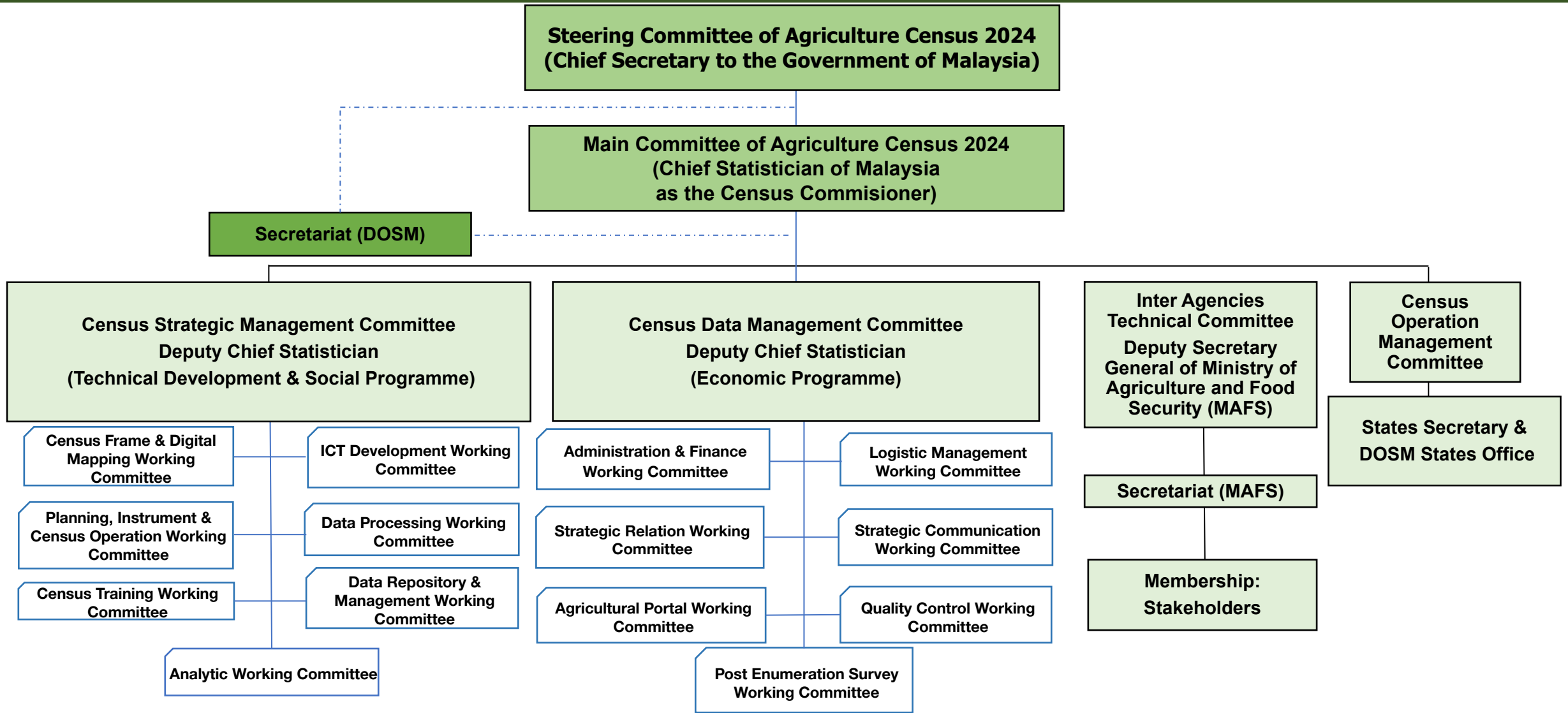


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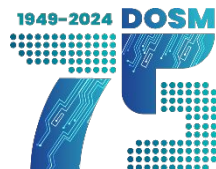


AGRICULTURAL CENSUS GOVERNANCE AND TECHNICAL WORKING COMMITTEES



PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

2. Determining Scope and Coverage





DETERMINING THE SCOPE AND COVERAGE

Roundtable Discussions with Stakeholders

- To agree upon on the scope and coverage
- Technical terms and definitions
- Threshold

COVERAGE DETAILS

Based on Malaysian Standard Industrial Classifications

2008 Ver. 1.0

- 73 crops classifications
- 26 livestock classifications
- 26 fisheries and aquaculture classifications
- 15 forestry and logging classifications

AGRICULTURAL HOLDINGS

- Household - 1.3 million*
- Business establishments
- Institution/ Cooperative/ Association } 20 thousand*

Note: * Estimation



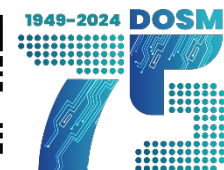
PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

3. Questionnaire Design

A2 MAKLUMAT AKTIVITI PERTANIAN
AGRICULTURE ACTIVITY INFORMATION

A3 AGENSI PEMBANGUNAN WILAYAH
REGIONAL DEVELOPMENT AGENCY

Penglibatan dalam aktiviti pertanian Involvement in agriculture activities	Jenis aktiviti pertanian Types of agriculture activities					Pembalakan Logging	Adakah anda peserta agensi pembangunan wilayah? Are you regional development agency participant?	Agensi pembangunan wilayah Regional development agency		
	Tanaman Crops	Ternakan Livestocks	Perikanan Tangkapan Captured Fisheries	Akuakultur Aquaculture	Pengumpulan Hasil Hutan Bukan Kayu Collection of Non-Wood Forestry			Agensi 1	Agensi 2	Agensi 3
	1201	1202	1203	1204	1205	1206	1300	1301	1302	1303
01	5	0	2	X	2	2	2			
02	5	2	2	2	2	2	2			
03										

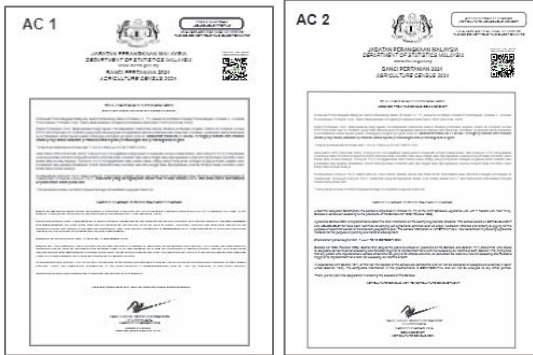




MAIN PARAMETERS FROM THE QUESTIONNAIRE

3 Questionnaires:

- AC1: HOUSEHOLD PROFILE
- AC2: AGRICULTURAL HOUSEHOLD
- AC3: ESTABLISHMENT




1 Demographic Characteristics of Agricultural Holdings (95 questions)

1. Name
2. Self-identification no.
3. Agriculture activities information
4. Operational method
5. Recognition & certification




2 Land and Cultivated Area (54 questions)

1. Location of agriculture activity
2. Area of cultivation
3. Land ownership
4. Land status



3 Irrigation Systems (26 questions)

Land area according to type of irrigation



4 Workers and Salaries & Wages (392 questions)

1. Workers according to gender, age, citizenship, employment status and occupation categories
2. Salaries & wages



5 Educational Background (62 questions)

Highest certificate attained by gender



6 Agrotourism (3 questions)

Income/expenditure transactions through agro-tourism activities



7 Financing Facility (8 questions)

1. Credit/ loan application
2. Sources of credit/ loan
3. Credit/ loan period
4. Purpose of credit/ loan
5. Collateral
6. Reasons for credit/ loan rejection
7. Reasons for not applying credit/ loan



8 Revenue, Expenditure & Assets (306 questions)

1. Income from agricultural produce
2. Income from processed agricultural products
3. Subsidies, assistance & grants
4. Income from rental/ lease
5. Operating cost
6. Direct material cost expenditure
7. Capital expenditure and fixed assets



9 Agricultural Practices and Technology Use (435 questions)

1. Travelling distance and time to the market centre
2. Marketing channel
3. Export
4. Consultation services
5. Assistance giving agency
6. Use of mechanisation
7. Smart farming applications
8. Use of technology
9. Waste management



10 Digital Economy for Marketing Purposes (3 questions)

Transactions of income/ expenditure through e-commerce platform

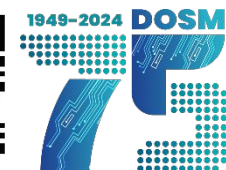


11 Food Security - Dimensions of Availability, Accessibility, and Stability (116 questions)

1. Production
2. Loss

PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

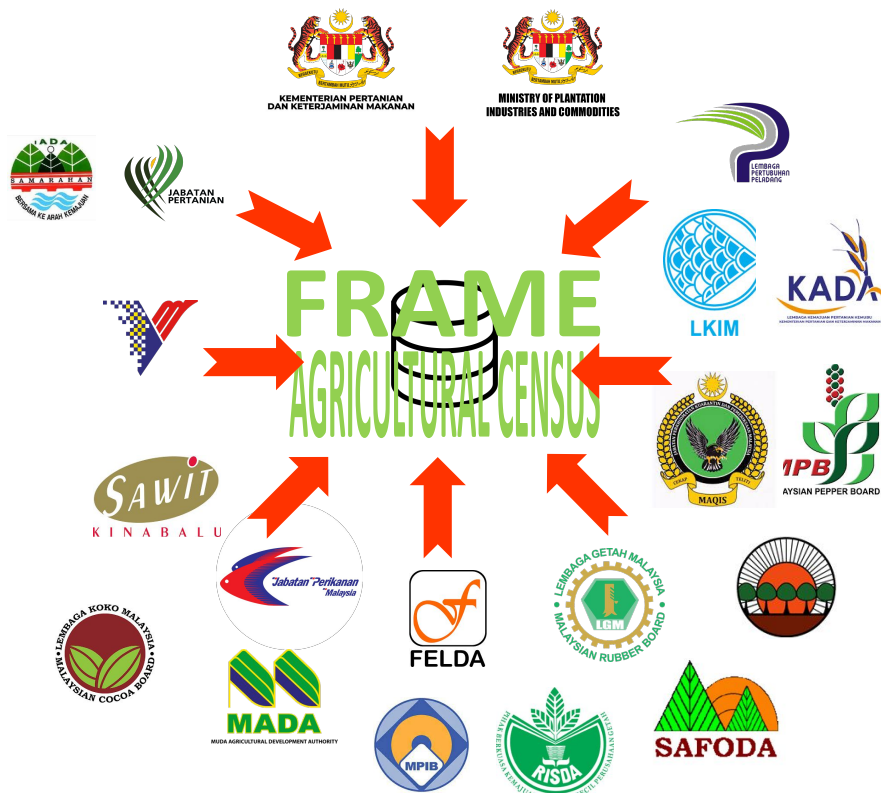
4. The Use of Administrative Data for Frame Preparation





ADMINISTRATIVE DATA AND RECORDS

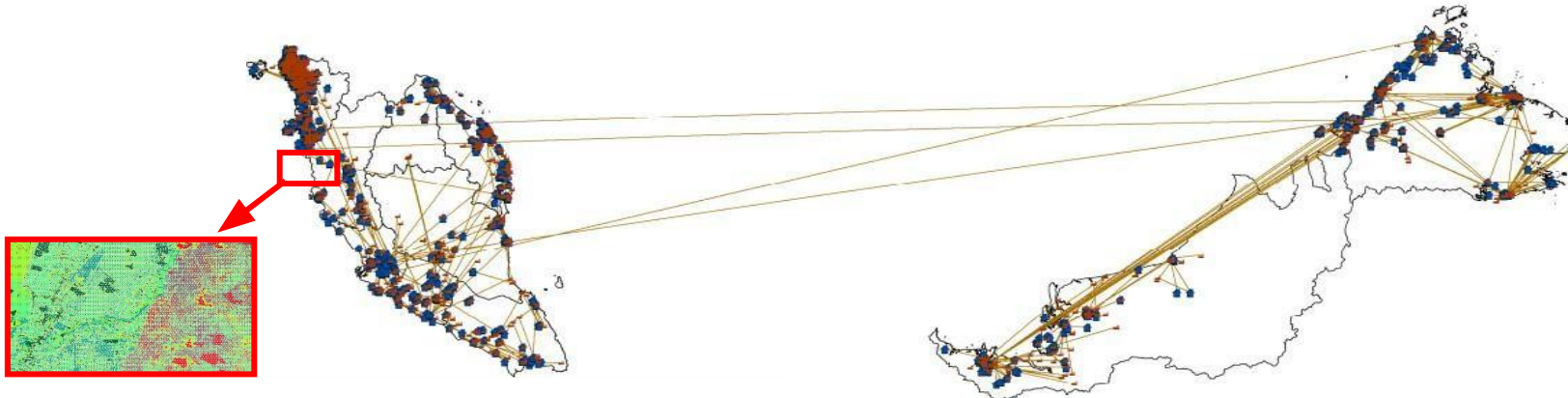
A total of 3,610,545 records were compiled from 186 agencies at the **federal/state level:**



- 01** As a **complement to the frame:** to add number of HH and establishment that involve in agriculture activities but not covered in the frame.
- 02** Additional information such as **phone number and address location** for updating the frame.
- 03** Able **to identify agricultural activities** that has been carried out down to the smallest/granular level.



GEOSPATIAL INFORMATION SYSTEM



Enumeration block with agricultural activities

Earth Observation (EO) to identify agricultural & forestry areas for the purpose of preparing the census frame

- Land Cover Analysis to identify agricultural and forestry areas
- Classification of areas into 3 categories namely:
 - i. Agriculture;
 - ii. Forestry; and
 - iii. Others.

DAERAH	SCENE	EVI	ACCURACY SCORE (%)	
			UNSUPERVISED	SUPERVISED
MANJUNG	DRS707094	(-0.9125, 1)	70.00	91.67
	DRS707419	(-0.7, 0.96)	56.67	-
BENTONG	DRS606217	(-0.86, 1)	51.67	63.33
	DRS706184	(-0.7, 1)	60.00	51.67
SAMARAHAN	DRS707382	(-0.61, 0.85)	-	-
	DRS707383	(-0.8, 0.85)	56.67	65.00
	DRS707243	(-1, 1)	43.33	73.33
KENINGAU	DRS607385	(-1, 1)	66.67	88.89
	DRS607202	(-1, 1)	48.33	94.4

Usage of Geography Information System (GIS) to identify:

- i. Location of agriculture holder
- ii. Location of activities

Spatial data sources for agricultural areas:



Population and Housing Census of Malaysia 2020
(Department of Statistics Malaysia)



Peninsular Malaysia Land Use 2020
(Town and Country Planning Department (PLANMalaysia))



Peninsular Malaysia Agriculture Land Use 2018
(Department of Agriculture)

Spatial data is used in Geographic Information Systems (GIS) and geolocation or other position-based services.

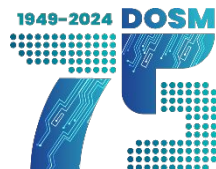
Spatial data consists of **points, lines, polygons, and other primitive geographic and geometric data**, which can be mapped according to location, stored with objects as metadata.

PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

5. Pre-Test & Pilot Test



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PRE-TEST & PILOT TEST

PRE-TEST

- ✓ Questionnaires and Instruction manuals testing
- ✓ 18th -19th January 2023
- ✓ Location: Federal Territory & Selangor

PILOT TEST SERIES 1/2023

- ✓ Testing the effectiveness of the training programme for operational staff
- ✓ 9th June 2023
- ✓ Location: Sungkai, Perak

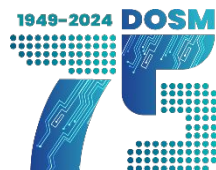
PILOT TEST SERIES 2/2023

- ✓ Field enumeration work flow process
- ✓ 19th – 23rd June 2023
- ✓ All states 536 samples (Household and establishments agricultural holdings)



PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

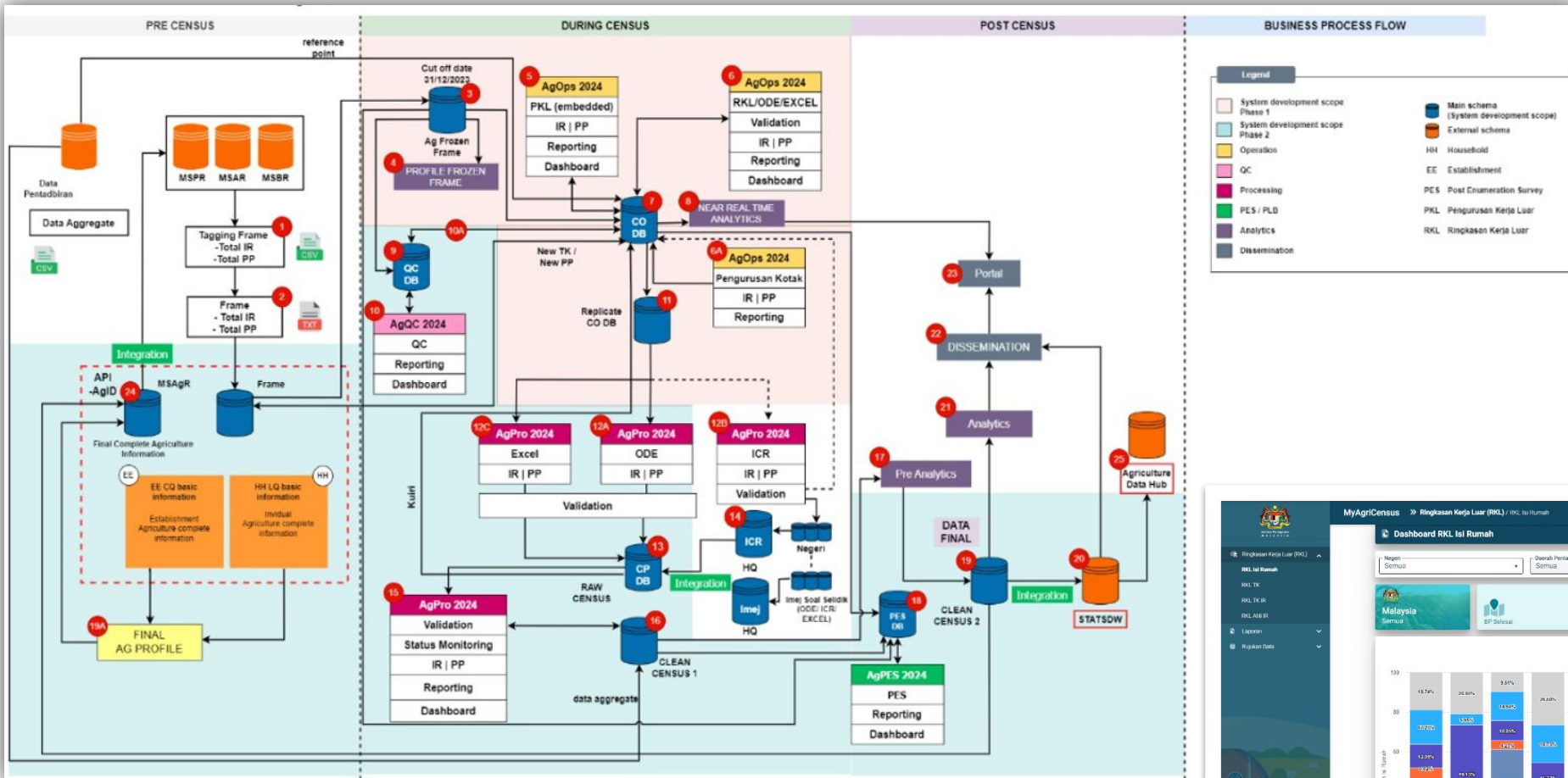
6. Development of MyAgriCensus System





MYAGRICENSUS SYSTEM ARCHITECTURE

- Consist of Modules for:**
- Metadata & Frame Management
 - Field Operation Progress
 - Data Processing
 - Quality Control
 - Analytics
 - Post Enumeration Survey (PES)
 - Databases
 - Dissemination



PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

7. Strategic Communication & Collaboration





ENGAGEMENT OF TOP MANAGEMENT

- Active involvement of DOSM top management and state offices
- Courtesy visit to the ministries and agencies related to agriculture activities
- Total of 298 courtesy visits throughout 2022 – 2024
 - 2022 – 16
 - 2023 – 262
 - 2024 – 20





OFFICIAL PORTAL AGRICULTURE CENSUS 2024

Ministry of Economy
Department of Statistics Malaysia

Ministry of Agriculture & Food Security

Ministry of Plantation & Commodities

#caknaTani

Explore our interactive
microsites, engaging articles,
and insightful newsletters



AgrInsight

Infographics and
interactive
visualisations



Census Info

Information related to
the Agricultural Census
2024



GO-LIVE
20.10.2023



www.myagricensus.gov.my



FunStats

Various interactive
games related to the
2024 Agricultural Census



Ask Abg Tani

AI-powered
chatbot ready to
assist



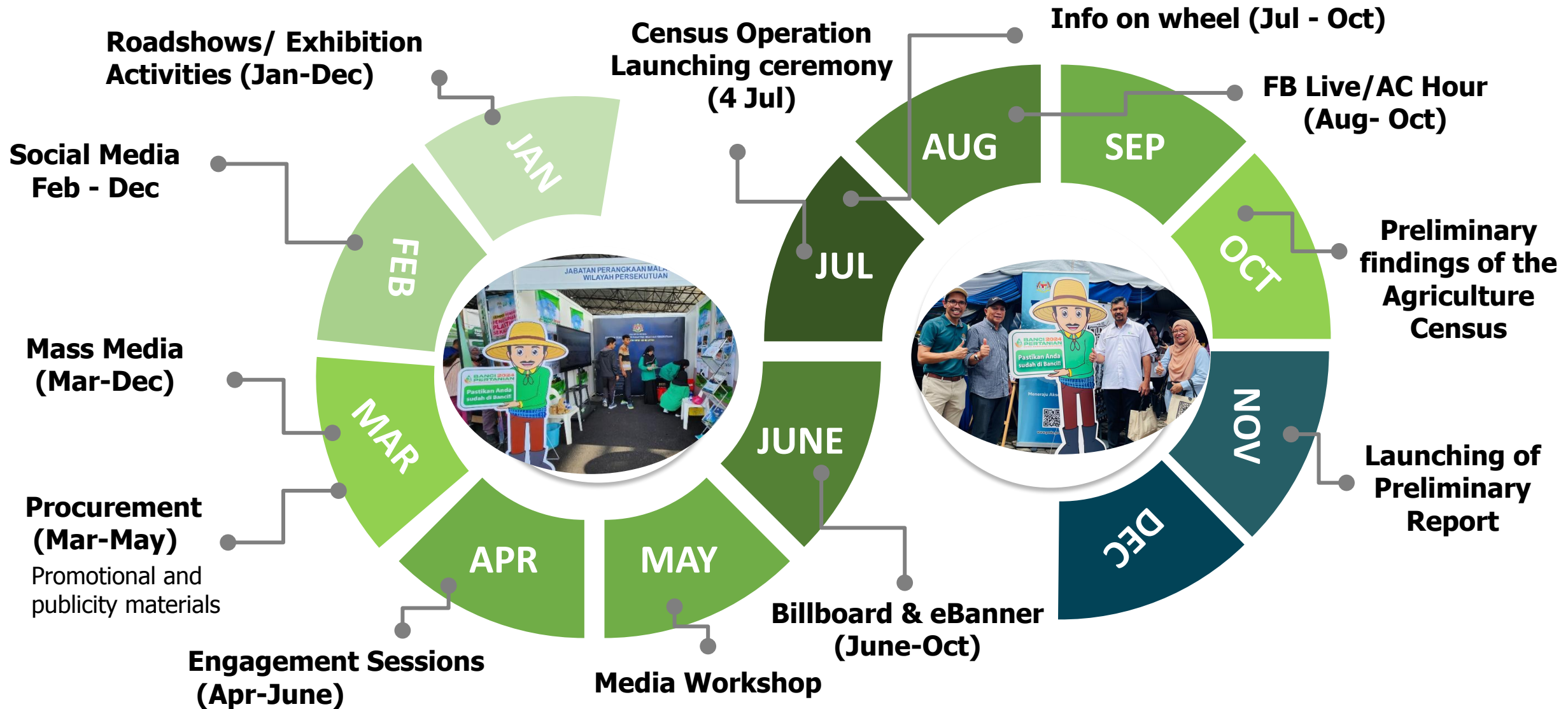
AskMyAgri

Illustrated
agricultural
dictionary



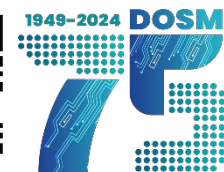


STRATEGIC COMMUNICATIONS ROADMAP



PREPARATION TOWARDS THE IMPLEMENTATION OF MALAYSIA'S AGRICULTURE CENSUS 2024

8. Capacity Building





CAPACITY BUILDING

Mr. Bangla BOBET (AFCS Secretary and Regional Statistician for Asia and Pacific/AF Regional Office for Asia and the Pacific Bangkok, Thailand)

Training of trainers (TOT) workshop

Strengthening of Agriculture Data Workshop

Workshop on Agriculture Census (Scope & Definitions and Questionnaire Design)

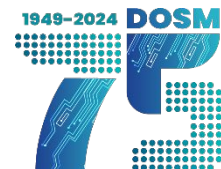
Workshop on Agriculture Census (Pilot Test Finding and Review)

Hands on training on MyAgrecensus System

WAY FORWARD



    
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Strengthening the National Statistical System

- ❑ In line with Strengthening of the National Statistical System (*PSSN*) agendas to establish a centralised data system by enhancing data infrastructure, generating outputs and disseminating data through the development of data hubs.
- ❑ This effort simultaneously solidifies the National Statistical System and enriches the system with various sources to produce reliable, comprehensive, timely and integrated agriculture statistics.



Source: PSSN (Sept 2020), Department of Statistics Malaysia

The Need of an Integrated Agricultural Statistical Database

- ❑ The establishment of an Integrated Agricultural Statistical Database is the responsibility of DOSM and agricultural agencies to improve existing agricultural statistics and provide new indicators for the country's agricultural sector.
 - **Integration** of data covering economic, social and environmental dimensions;
 - **Generating** of near real-time analytics for policy formulation purposes;
 - **Operating** based on common standards enabling seamless sharing of various digital database; and
 - **Digitalisation** of work process.



WAY FORWARD (Cont'd.)

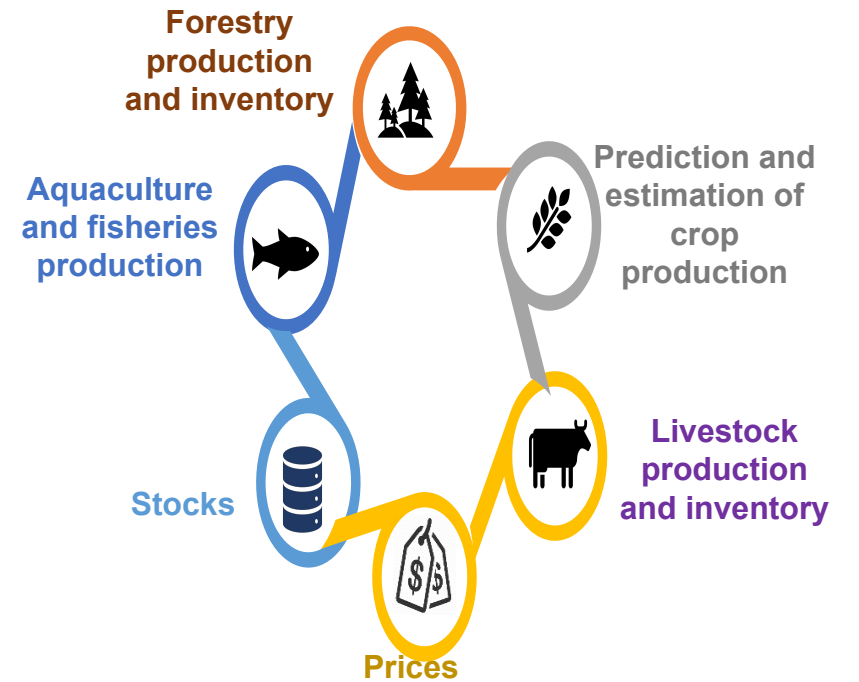
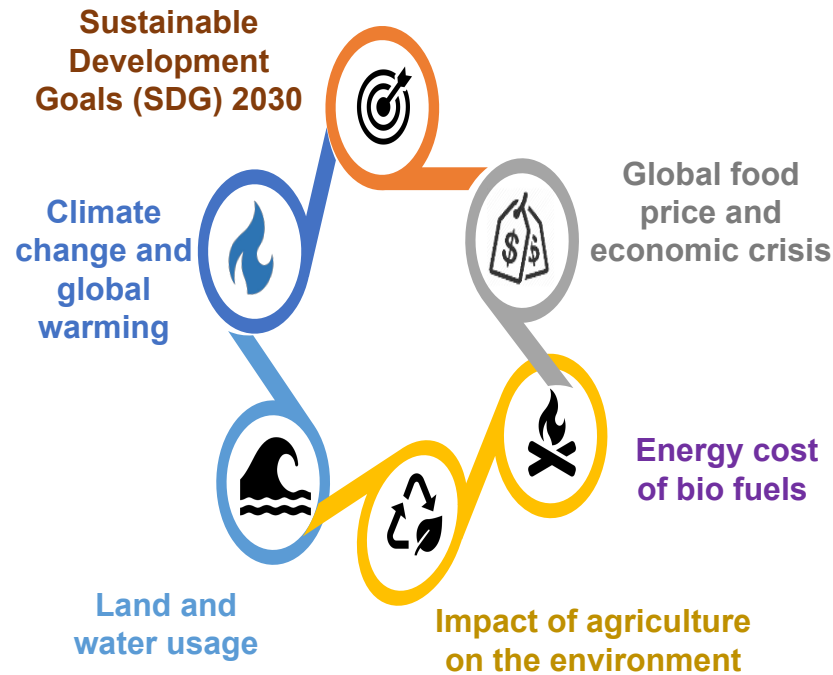
The implementation of an Integrated Agricultural Statistical Database aims to:

1 Align key data-related issues such as:

2 Improving the availability of incomplete and comprehensive data

3 Ensuring continuous sustainability of data quality and quantity

1. Complexity and fragmentation: silo, limited data sharing	5. Inefficiency of analysis
2. Inconsistent concepts and definitions: inconsistent data and SOPs	6. Lack of frame control
3. Historical data: Dynamic, real-time, time series	7. Inefficient data collection and storage
4. Data not mutually agreed upon	8. Errors in data collection and processing



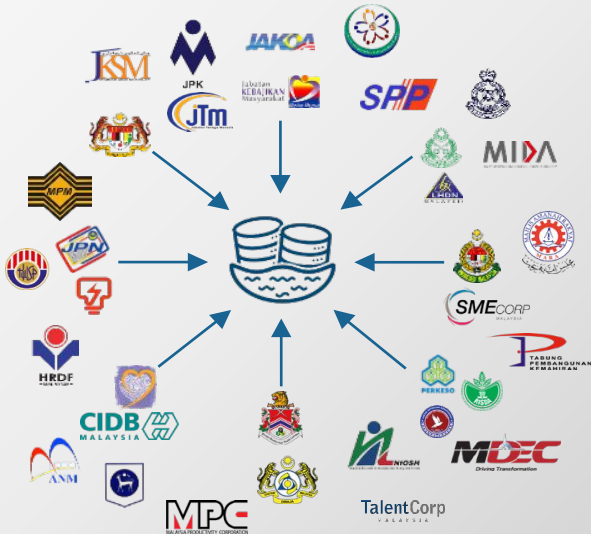


INTEGRATED AGRICULTURAL STATISTICAL DATABASE SERVE TOWARDS PADU

National Central Database (PADU): Data-Centric Government

The implementation of PADU started with phase 1 in June 2023 and is expected to be completed in January 2024. PADU will create individual profiles of Malaysians that contain comprehensive household information with objectives to:

- Strengthening the fiscal position through targeted policy implementation;
- Production of periodically analytics (frequency based) for the purpose of policy formulation; and
- Digitalisation without leakage and waste.



Five (5) main mechanisms of PADU implementation

- 1 The Cause of Power**
A clear source of authority is important to encourage data sharing between agencies
- 2 Governance**
A comprehensive and thorough governance structure through the implementation of direction, program mapping, framework and expertise sharing
- 3 Expertise Consolidation**
The establishment of a team involving the mobilization of public sector expertise from various Agencies
- 4 System Integrity**
A robust, dynamic, responsive, user-friendly system and an optimal cyber security network.
- 5 Engagement**
Based on people centric, urban/rural inclusion and building a Nation.

MANAGEMENT ENGAGEMENT SESSION STATUS

Engagement session activities includes courtesy visits, meetings/ discussions, briefings/ presentations to various Ministries/Agencies covering Statutory Bodies; Private/ State Government Subsidiaries; Public institution of higher learning; State government; Zakat Management Agency; and Local Authorities.

Number of Public Sector Institutional Units:	
70	Ministries/ Departments/ Agencies (25 Ministries)
13	State Government
83	Federal Statutory Bodies
134	State Statutory Bodies
154	Local Authorities

"Gemilang"

Di arus zaman berubah
moden dan penuh rintangan
tetap melangkah dan berevolusi
dan menuju matlamat jaya

Seiring dan seirama
bersama tekad di hati
misi dan visi berinovasi
Gah di mata dunia



VIDEO "GEMILANG"

<https://bit.ly/DOSMGemilang>

Chorus

Gemilang, perangkaan jitu
data terpelihara
pelbagai anugerah
membuktikan kita juga berdaya
Gemilang, harumkan negara
di antarabangsa
berpadu tenaga, berganding bahu
dan kejayaan di rasa

Langkah strategi di yakini
kejayaan di kecap
sejarah yang terukir
menjadi inspirasi

THANK YOU



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