



JABATAN PERDANA MENTERI
JABATAN PERANGKAAN MALAYSIA

ISSN 2231-718X



9 772231 718009 >

**AKAUN PEMBEKALAN DAN PENGGUNAAN
KOMODITI PERTANIAN TERPILIH**
*SUPPLY AND UTILIZATION ACCOUNTS
SELECTED AGRICULTURAL COMMODITIES*
2017-2021

JABATAN PERANGKAAN MALAYSIA
DEPARTMENT OF STATISTICS MALAYSIA



JABATAN PERDANA MENTERI
JABATAN PERANGKAAN MALAYSIA

AKAUN PEMBEKALAN DAN PENGGUNAAN KOMODITI PERTANIAN TERPILIH

*SUPPLY AND UTILIZATION ACCOUNTS
SELECTED AGRICULTURAL COMMODITIES*

**MALAYSIA
2017-2021**

Pemakluman

Jabatan Perangkaan Malaysia (DOSM) sedang menjalankan Survei Pendapatan, Perbelanjaan Isi Rumah dan Kemudahan Asas (HIES/BA) 2022 bermula dari 1 Januari 2022 sehingga 31 Disember 2022 dan Survei Ekonomi Tahunan (AES) 2022 bermula dari 15 April 2022 sehingga 30 September 2022. DOSM amat menghargai kerjasama daripada responden yang terpilih untuk memberikan maklumat kepada DOSM serta menjayakan survei ini. Sila layari www.dosm.gov.my untuk maklumat lanjut.

Penerbitan statistik ekonomi dan sosial iaitu PocketStats yang mengandungi statistik suku tahunan dan tahunan boleh diperoleh dari portal DOSM atau melalui pautan https://bit.ly/PocketStatsS1_2022.

Dimaklumkan bahawa Kerajaan Malaysia telah mengisytiharkan Hari Statistik Negara (MyStats Day) pada 20 Oktober setiap tahun. Tema sambutan MyStats Day adalah "Connecting the World with Data We Can Trust".

Announcement

The Department of Statistics Malaysia (DOSM) is conducting the Household Income, Expenditure and Basic Amenities Survey (HIES/BA) 2022 from 1st January 2022 until 31st December 2022 and the Annual Economic Survey (AES) 2022 from 15th April 2022 until 30th September 2022. DOSM greatly appreciates the cooperation given by selected respondents by sharing their information with DOSM and making the survey a success. Please visit www.dosm.gov.my for more information.

Economic and social statistics publication namely PocketStats which contain quarterly and annual statistics can be obtained from the DOSM portal or via the link https://bit.ly/PocketStatsQ1_2022.

Please be informed that the Government of Malaysia has declared National Statistics Day (MyStats Day) on October 20 each year. MyStats Day theme is "Connecting the World with Data We Can Trust".

Diterbitkan dan dicetak oleh / Published and printed by:

Jabatan Perangkaan Malaysia

Department of Statistics, Malaysia

Blok C6, Kompleks C,

Pusat Pentadbiran Kerajaan Persekutuan,

62514 Putrajaya,

MALAYSIA

Tel. : 03-8885 7000
Faks / Fax : 03-8888 9248
Portal : <https://www.dosm.gov.my>
Facebook / Twitter / Instagram : StatsMalaysia
Emel / Email : info@dosm.gov.my
(pertanyaan umum / *general enquiries*)
data@dosm.gov.my (pertanyaan & permintaan data /
data request & enquiries)

Harga / Price : RM35.00

Diterbitkan pada September 2022 / *Published on September 2022*

Hakcipta terpelihara / All rights reserved.

Tiada bahagian daripada terbitan ini boleh diterbitkan semula, disimpan untuk pengeluaran atau ditukar dalam apa-apa bentuk atau alat apa jua pun kecuali setelah mendapat kebenaran daripada Jabatan Perangkaan Malaysia.

Pengguna yang mengeluarkan sebarang maklumat dari terbitan ini sama ada yang asal atau diolah semula hendaklah meletakkan kenyataan berikut:

“Sumber : Jabatan Perangkaan Malaysia”.

No part of this publication may be reproduced or distributed in any form or by any means or stored in data base without the prior written permission from Department of Statistics, Malaysia. Users reproducing content of this publication with or without adaptation should quote the following:

“Source : Department of Statistics, Malaysia”.

ISSN 2231 – 718X

KATA PENGANTAR

Akaun Pembekalan dan Penggunaan (SUA) Komoditi Pertanian Terpilih, Malaysia, memaparkan statistik pengeluaran, eksport dan import serta indikator kadar sara diri, kadar kebergantungan import dan penggunaan per kapita bagi komoditi pertanian terpilih. Statistik dan indikator ini merupakan petunjuk penting bagi melihat kedudukan pertanian negara terutama dalam menentukan jaminan bekalan makanan yang mencukupi. Empat item baharu perikanan terpilih telah diliputi dalam penerbitan tahun ini iaitu siakap, kerisi, pari dan patin.

Penyusunan SUA adalah berdasarkan konsep dan garis panduan daripada *Food Balance Sheets - A Handbook* yang dikeluarkan oleh *Food and Agriculture Organization of the United Nations* (FAO), Rome, 2001 dan *Guidelines for the Compilation of Food Balance Sheet* oleh FAO, 2017. Penerbitan ini boleh membantu agensi kerajaan, pembuat dasar dan penyelidik dalam menilai situasi semasa dan merancang pembangunan sektor pertanian sebagai sumber bahan makanan kepada penduduk dan bahan mentah bagi pembangunan industri berasaskan pertanian untuk kemajuan negara dan kesejahteraan rakyat.

Bahagian pertama penerbitan ini menerangkan senario pertanian global dan Malaysia manakala ringkasan penemuan dipaparkan di bahagian kedua. Bahagian ketiga memuatkan jadual terperinci siri masa mengikut komoditi pertanian terpilih bagi membantu pengguna membuat analisis. Sementara itu, bahagian terakhir mengandungi nota teknikal untuk menerangkan konsep dan definisi bagi memudahkan pengguna memahami statistik yang diterbitkan.

Jabatan Perangkaan Malaysia merakamkan setinggi-tinggi penghargaan atas kerjasama oleh semua pihak dalam penyediaan penerbitan ini. Setiap maklum balas dan cadangan ke arah penambahbaikan penerbitan ini pada masa hadapan amat dihargai.

DATO' SRI DR. MOHD UZIR MAHIDIN

Ketua Perangkawan Malaysia

September 2022

PREFACE

Supply and Utilization Accounts (SUA) of Selected Agricultural Commodities, Malaysia, shows statistics on production, exports and imports as well as indicators of self-sufficiency ratio, import dependency ratio and per capita consumption for selected agricultural commodities. These statistics and indicators are important indicators to the national agriculture situation, particularly in determining sufficient food supply security. Four new selected fisheries items were included in this year publication, namely seabass, threadfin bream, stingrays and river catfish.

The compilation of SUA is based on the concepts and guidelines from Food Balance Sheets - A Handbook published by the Food and Agriculture Organization of the United Nations (FAO), Rome, 2001 and Guidelines for the Compilation of Food Balance Sheet by FAO, 2017. This publication could assist government agencies, policy makers and researchers in assessing the current situation and planning the development of the agricultural sector as a food sources to population as well as a raw material sources in the development of agriculture-based industry for progress of the country and well-being of the people.

The first part of this publication present the global and Malaysia agriculture scenario while the summary of findings is displayed in the second part. The third part contains detailed time series tables by selected agricultural commodities to facilitate analysis. Meanwhile, the last part contains technical notes that explain the concepts and definitions to assist users in understanding the published statistics.

The Department of Statistics, Malaysia gratefully acknowledges the cooperation by all parties involves in preparation of this publication. Any feedback and suggestion towards improving this publication in the future are greatly appreciated.

DATO' SRI DR. MOHD UZIR MAHIDIN

Chief Statistician, Malaysia

September 2022

KANDUNGAN

CONTENTS

Kata Pengantar

Preface

iii
iv

Senarai Jadual

List of Tables

vi

Pengenalan

Introduction

3
9

Ringkasan Penemuan

Summary of Findings

Pengeluaran, Import, Eksport dan Penggunaan Per Kapita (PCC) bagi Komoditi Pertanian Terpilih

15

Production, Import, Export and Per Capita Consumption (PCC) for Selected Agricultural Commodities

43

Kadar Sara Diri (SSR) dan Kadar Kebergantungan Import (IDR) bagi Komoditi Pertanian Terpilih

29

Self-Sufficiency Ratio (SSR) and Import Dependency Ratio (IDR) for Selected Agricultural Commodities

57

Import Barangan Makanan Terpilih

33

Import of Selected Food Products

61

Artikel: Pengenalan kepada Konsep Asas Sekuriti dan Ketidakjaminan Makanan

34

Article: An Introduction to the Elementary Concepts of Food Security and Insecurity

62

Jadual

Tables

69

Nota Teknikal

Technical Notes

89
96





SENARAI JADUAL

LIST OF TABLES

1	Akaun Pembekalan dan Penggunaan bagi Buah-buahan Terpilih, Malaysia, 2017-2021	69
	<i>Supply and Utilization Accounts for Selected Fruits, Malaysia, 2017-2021</i>	
2	Akaun Pembekalan dan Penggunaan bagi Sayur-sayuran Terpilih, Malaysia, 2017-2021	72
	<i>Supply and Utilization Accounts for Selected Vegetables, Malaysia, 2017-2021</i>	
3	Akaun Pembekalan dan Penggunaan bagi Tanaman Terpilih Lain, Malaysia, 2017-2021	74
	<i>Supply and Utilization Accounts for Other Selected Crops, Malaysia, 2017-2021</i>	
4	Akaun Pembekalan dan Penggunaan bagi Ternakan Terpilih, Malaysia, 2017-2021	75
	<i>Supply and Utilization Accounts for Selected Livestock, Malaysia, 2017-2021</i>	
5	Akaun Pembekalan dan Penggunaan bagi Perikanan Terpilih, Malaysia, 2017-2021	77
	<i>Supply and Utilization Accounts for Selected Fisheries, Malaysia, 2017-2021</i>	
6	Penggunaan Per Kapita bagi Item Pertanian Terpilih mengikut Negeri, Malaysia, 2021	80
	<i>Per Capita Consumption of Selected Agricultural Item by State, Malaysia, 2021</i>	
7	Harga Purata bagi Item Pertanian Terpilih, Malaysia, 2019-2021	82
	<i>Average Price of Selected Agricultural Item, Malaysia, 2019-2021</i>	
8	Bilangan Penduduk, Malaysia, 2017-2021	85
	<i>Numbers of Population, Malaysia, 2017-2021</i>	

AKAUN PEMBEKALAN DAN PENGGUNAAN KOMODITI PERTANIAN TERPILIH, 2017-2021

KADAR SARA DIRI (SSR)

2021



Sumber: Akaun Pembekalan dan Penggunaan Komoditi Pertanian Terpilih, 2017-2021,
Jabatan Perangkaan Malaysia (DOSM)

PENGUNAAN PER KAPITA (PCC)

2021

(kg/tahun)

TANAMAN

 Beras 79.0	 Kelapa 23.0	 Durian 12.2	 Pisang 9.3	 Nanas 8.4
 Tembikai 2.6	 Mangga 2.2	 Jagung manis 1.9	 Cempedak/ nangka 1.7	 Rambutan 1.6
 Betik 1.2	 Jambu batu 1.0	 Manggis 0.8	 Langsat 0.4	 Belimbing 0.2
 Kobis bulat 6.6	 Sawi 4.7	 Tomato 4.2	 Timun 2.6	 Cili 2.2
 Salad 2.2	 Bayam 2.1	 Bendi 1.7	 Kacang panjang 1.6	 Terung 1.2
 Ubi keledak 2.0	 Halia 1.7	 Limau nipis/ kasturi 0.7	 Ubi kayu 0.1	 Tebu 0.005

TERNAKAN

 Daging ayam 46.1	 Telur ayam/ itik 20.8	 Daging babi 17.3
 Daging lembu/ kerbau 5.5	 Susu segar (liter/tahun) 2.1	 Daging kambing/ bebiri 1.0
	 Daging itik 1.6	

PERIKANAN

	Mackerel 4.8		Udang 4.6		Selayang 2.4		Sotong 2.2		
	Tuna 2.0		Siakap 1.2		Tilapia 1.2		Kerisi 1.1		Cencaru 0.9
	Keli 0.9		Patin 0.6		Ketam 0.4		Pari 0.3		



JABATAN PERDANA MENTERI
JABATAN PERANGKAAAN MALAYSIA



StatsMalaysia

www.dosm.gov.my

#KELUARGA
MALAYSIA

KADAR KEBERGANTUNGAN IMPORT (IDR)

2021

(peratus)

BUAH-BUAHAN



SAYUR-SAYURAN



LAIN-LAIN

TERNAKAN



PERIKANAN

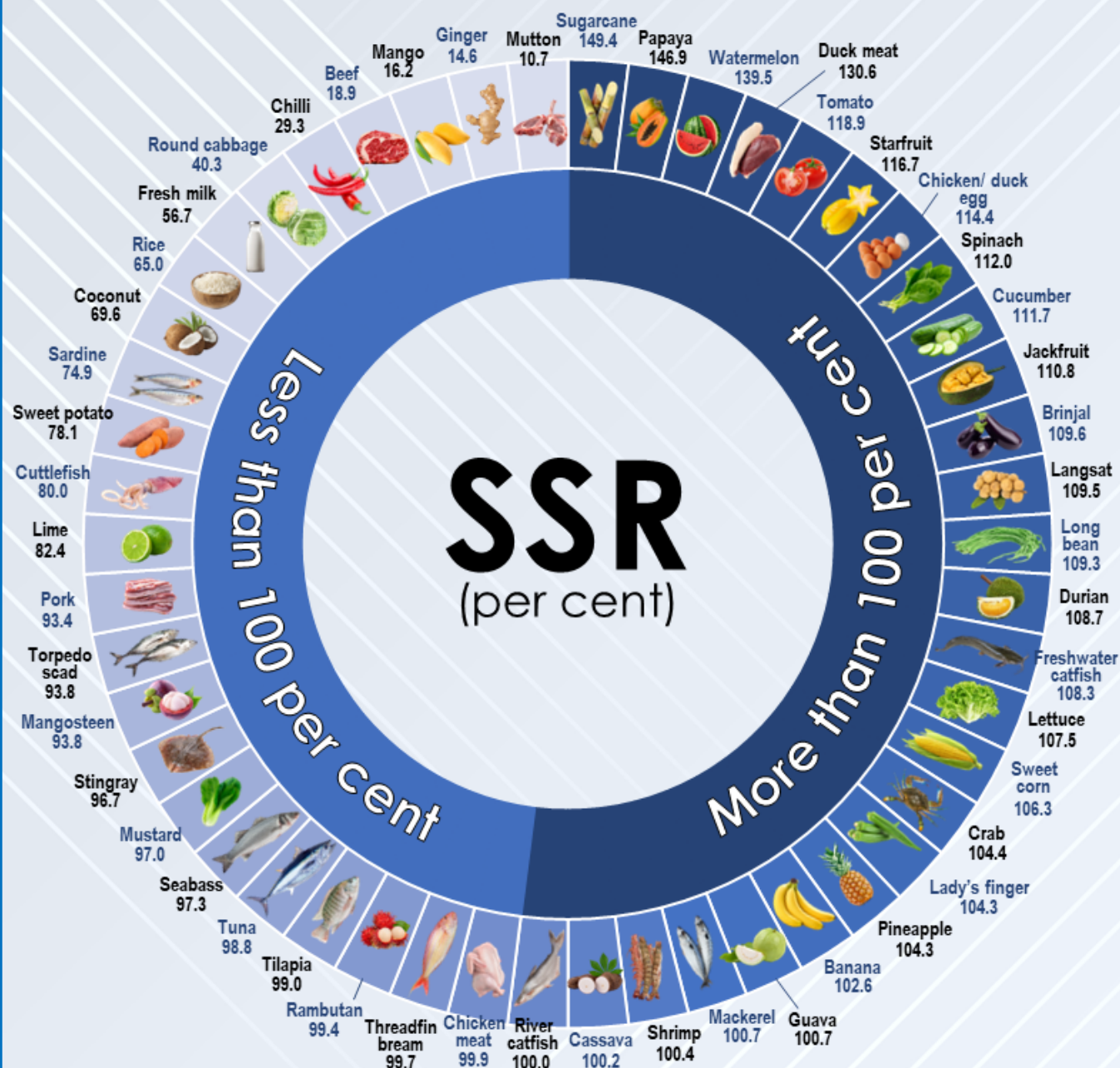


Sumber: Akaun Pembekalan dan Penggunaan Komoditi Pertanian Terpilih, 2017-2021.
Jabatan Perangkaan Malaysia (DOSM)

SUPPLY AND UTILIZATION ACCOUNTS SELECTED AGRICULTURAL COMMODITIES, 2017-2021

SELF-SUFFICIENCY RATIO (SSR)

2021



Source: Supply and Utilization Accounts Selected Agricultural Commodities, 2017-2021.
Department of Statistics Malaysia (DOSM)

PER CAPITA CONSUMPTION (PCC)

2021

(kg/year)

CROPS

 Rice 79.0	 Coconut 23.0	 Durian 12.2	 Banana 9.3	 Pineapple 8.4
 Watermelon 2.6	 Mango 2.2	 Sweet corn 1.9	 Jackfruit 1.7	 Rambutan 1.6
 Papaya 1.2	 Guava 1.0	 Mangosteen 0.8	 Langsat 0.4	 Starfruit 0.2
 Round cabbage 6.6	 Mustard 4.7	 Tomato 4.2	 Cucumber 2.6	 Chilli 2.2
 Lettuce 2.2	 Spinach 2.1	 Lady's finger 1.7	 Long bean 1.6	 Brinjal 1.2
 Sweet potato 2.0	 Ginger 1.7	 Lime 0.7	 Cassava 0.1	 Sugarcane 0.005

LIVESTOCK

 Chicken meat 46.1	 Chicken/duck egg 20.8	 Pork 17.3
 Beef 5.5	 Fresh milk (liter/year) 2.1	 Duck meat 1.6
		 Mutton 1.0

FISHERIES

 Mackerel 4.8	 Shrimp 4.6	 Sardine 2.4	 Cuttlefish 2.2
 Tuna 2.0	 Seabass 1.2	 Tilapia 1.2	 Threadfin bream 1.1
	 Torpedoscad 0.9		
 Freshwater catfish 0.9	 River catfish 0.6	 Crab 0.4	 Stingray 0.3

Source: Supply and Utilization Accounts Selected Agricultural Commodities, 2017-2021,
Department of Statistics Malaysia (DOSM)

IMPORT DEPENDENCY RATIO (IDR)

2021

(per cent)

FRUITS



VEGETABLES



OTHERS

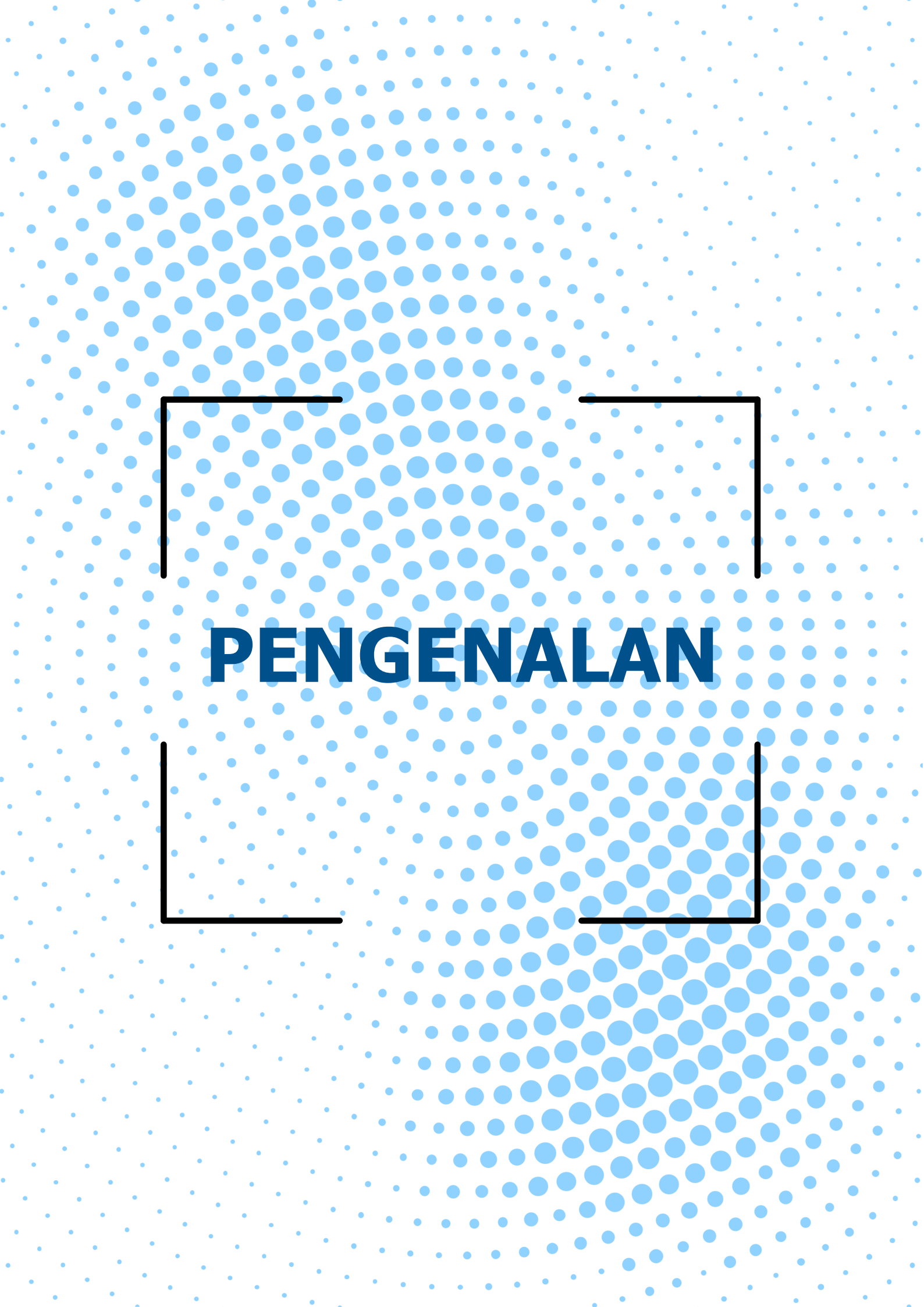
LIVESTOCK



FISHERIES



Source: Supply and Utilization Accounts Selected Agricultural Commodities, 2017-2021.
Department of Statistics Malaysia (DOSM)



PENGENALAN

Muka surat ini sengaja dibiarkan kosong
This page is deliberately left blank

SENARIO PERTANIAN GLOBAL

Populasi dunia memerlukan makanan, namun pengeluaran pertanian cenderung bertumpu di negara terbesar serta negara yang mempunyai iklim yang bersesuaian untuk pertanian. Saiz populasi juga penting kerana sebahagian besar pengeluaran pertanian digunakan untuk keperluan domestik, walaupun berlaku pertumbuhan pesat dalam perdagangan antarabangsa bagi produk pertanian. Empat negara utama pengeluar makanan dunia seperti China, India, Amerika Syarikat dan Brazil mempunyai populasi yang tinggi, kawasan tanah yang luas dan zon iklim yang sesuai untuk aktiviti pertanian.

Di peringkat global, dianggarkan 1.3 bilion orang memperoleh makanan melalui perdagangan antarabangsa¹ dan banyak negara masih bergantung kepada import makanan. Sekuriti makanan antarabangsa bergantung kepada rantai bekalan global yang efektif daripada pengeluar kepada pengguna akhir (FAO, 2020)^{2,3}.

Kini, masyarakat antarabangsa telah menyedari tindakan segera diperlukan untuk mengukuhkan sistem makanan yang merangkumi pengeluaran, pemprosesan, pengangkutan dan pengambilan makanan. Menurut FAO, keupayaan sistem pertanian makanan bagi memastikan sekuriti makanan dan nutrisi mencukupi untuk semua bukan sahaja bergantung kepada kapasiti, tetapi juga kepada kesinambungan fungsi sistem sosio-ekonomi dan alam sekitar lain seperti pengangkutan, pendidikan, kesihatan, air, tanah dan tenaga, serta mekanisme perlindungan sosial.

Komponen sistem pertanian makanan merangkumi pengeluaran hasil pertanian utama produk makanan dan bukan makanan (tanaman, ternakan, perikanan, perhutanan dan akuakultur), pengeluaran makanan bukan

Dianggarkan 1.3 bilion orang memperoleh makanan melalui perdagangan antarabangsa (Wolff, 2020).

asal pertanian (contoh: daging sintetik), rantai bekalan makanan daripada pengeluar kepada pengguna dan pengguna akhir makanan. Di peringkat global, sistem ini menghasilkan kira-kira 11 bilion tan makanan setiap tahun dan menjadi tulang belakang kepada ekonomi. Namun, sistem pertanian makanan hari ini tidak berupaya memastikan kira-kira 10 peratus penduduk dunia bebas daripada kelaparan⁴.

Tekanan demografi dan persekitaran telah menyebabkan kestabilan sistem pertanian makanan menjadi lebih penting dengan pertumbuhan cepat populasi global yang mendorong kepada peningkatan permintaan terhadap makanan. Pada masa sama, kejutan



dan tekanan telah memberi ancaman kepada pengeluaran pertanian sehingga ke peringkat hiliran sistem pertanian makanan. Perubahan iklim, konflik, kejutan ekonomi dan ketaksamaan yang semakin meningkat menghalang dunia daripada mencapai kebuluran sifar menjelang 2030. Pandemik COVID-19 memburukkan lagi keadaan, dengan kira-kira 150 juta orang menghadapi kelaparan pada 2021⁵ (*The SDG Report 2022, UN*). Dengan jangkaan populasi dunia akan mencecah 9.7 bilion pada 2050⁶, sektor pertanian mungkin perlu menghasilkan 40–54 peratus lebih banyak bahan mentah makanan, makanan ternakan dan bahan api⁷.

Untuk menuju ke arah kemampanan, pertanian perlu memenuhi keperluan generasi sekarang dan masa hadapan, di samping memastikan keuntungan, kesihatan persekitaran, serta aktiviti sosial dan ekonomi. Makanan dan Pertanian Mampan (SFA) menyumbang kepada empat tunggak sekuriti makanan – ketersediaan, akses, penggunaan dan kestabilan. FAO telah mempromosi SFA untuk mencapai Kelaparan Sifar dan Matlamat Pembangunan Mampan (FAO, 2021)⁴.



-
- ¹ Wolff, A. (2020). DDG Wolff: Reliance on international trade for food security likely to grow. World Trade Organisation. Tersedia dalam talian di: http://www.wto.org/english/news_e/news20_e/ddgaw_30apr20_e.htm
 - ² FAO (2020). Impacts of coronavirus on food security and nutrition in Asia and the Pacific: building more resilient food systems. Tersedia dalam talian di: <http://www.fao.org/3/ca9473en/CA9473EN.pdf>
 - ³ Tortajada, C. & Lim, N. 2020. Food Security and Covid-19: Impacts and resilience in Singapore. Tersedia dalam talian di: <https://www.frontiersin.org/articles/10.3389/fsufs.2021.740780/full>
 - ⁴ FAO (2021). The state of food and agriculture 2021: Making agrifood systems more resilient to shocks and stresses. Tersedia dalam talian di: <https://www.fao.org/3/CB4476EN/online/CB4476EN.html#chapter>
 - ⁵ United Nations (2022). The Sustainable Development Goals Report 2022.
 - ⁶ Low, B., Ostrom, E., Simon, C. & Wilson, J. 2002. Redundancy and diversity: do they influence optimal management? In F. Berkes, J. Colding & C. Folke, eds. Navigating social-ecological systems: Building resilience for complexity and change, pp. 83–114. Cambridge, Cambridge University Press.
 - ⁷ Stone, J. & Rahimifard, S. 2018. Resilience in agri-food supply chains: a critical analysis of the literature and synthesis of a novel framework. Supply Chain Management, 23(3): 207–238.

SENARIO PERTANIAN MALAYSIA

Sektor pertanian memainkan peranan penting dalam ekonomi di Malaysia. Dalam konteks Malaysia, pengeluaran bahan makanan negara adalah di bawah potensi sebenar walaupun negara mempunyai tanah subur dan alam semulajadi yang bersesuaian bagi menghasilkan sendiri sayuran, buah-buahan dan ternakan. Penggunaan teknologi adalah rendah dan pengeluaran input pertanian juga rendah sehingga Malaysia kehilangan daya saing dalam pengeluaran bahan makanan (Profesor Datin Paduka Fatimah Arshad, UPM, Utusan Malaysia). Hasilnya, kedudukan Malaysia dalam Indeks Keselamatan Makanan Global (GFSI) 2020 di tangga ke-43 dengan markah 69.3. GFSI membawa isu kemampuan, ketersediaan, kualiti dan keselamatan makanan serta sumber asli dan daya tahan bagi 113 negara. Indeks ini berdasarkan penanda aras dinamik yang mengukur pemacu sekuriti makanan di negara membangun dan maju.

Sejajar dengan fasa pemulihan pasca pandemik, kerajaan telah mengadakan beberapa usaha dan inisiatif untuk menjamin kecukupan bekalan makanan. Pakej Perlindungan Rakyat dan Pemulihan Ekonomi (PEMULIH) diperkenalkan sebagai salah satu inisiatif kerajaan bagi memulihkan semula ekonomi negara. Dana Agromakanan Keluarga Malaysia merupakan satu kempen hasil usaha kerjasama antara Agrobank dan Kementerian Pertanian dan Industri Makanan (MAFI) yang dilancarkan pada 23 Oktober 2021. Sebanyak RM60 juta daripada RM110 juta yang diperuntukkan adalah untuk Dana Pembiayaan Agromakanan (DPA) sebagai pembiayaan khusus untuk usahawan tani industri makanan bagi meningkatkan pengeluaran tempatan dan mengurangkan import.

Melalui PEMULIH, kerajaan telah memperuntukkan sebanyak RM350 juta di bawah Pelan Jana Semula Ekonomi Negara

(PENJANA) yang merupakan salah satu bentuk bantuan kewangan kepada usahawan mikro terutamanya pengusaha agromakanan golongan B40. Peruntukan RM30 juta daripada jumlah tersebut disalurkan untuk melaksanakan Program Kebun Komuniti bertujuan mempergiatkan ekonomi bagi kelangsungan bekalan makanan negara. Program ini memberi manfaat kepada masyarakat bandar dan luar bandar yang terlibat dengan aktiviti pengeluaran tanaman jangka pendek seperti sayur-sayuran selain dapat mengurangkan beban ketika menghadapi pandemik. Individu dan komuniti terpilih masing-masing menerima RM500 dan RM5,000 peruntukan yang merangkumi input pertanian dan khidmat nasihat.

Sokongan Sektor Pertanian dan Makanan

OBJEKTIF
Menyediakan pembiayaan kewangan kepada industri pertanian dan makanan yang terjejas akibat COVID-19 dan PKP

Bantuan khusus bagi sektor pertanian dan makanan seperti berikut:

- ▶ Skim Pembiayaan Mikrokredit di bawah Agrobank bagi usahawan agro (termasuk usahawan industri komoditi) bernilai **RM350 juta dengan kadar faedah 3.5%**
 - Nilai pinjaman maksimum: RM50,000 untuk setiap usahawan
 - Tempoh pinjaman: sehingga 5 tahun
- ▶ Insentif untuk memudahcara mobiliti tenaga kerja pertanian kepada syarikat perintis bagi melatih dan mengajar tenaga kerja untuk menceburi peluang dalam pertanian dan perladangan
- ▶ Memberi sumbangan *in-kind* bagi menyokong pertanian bandar (seperti benih, baja, infrastruktur, peralatan, khidmat nasihat dan latihan) bernilai **RM500** bagi penerima individu dan RM50,000 bagi setiap komuniti

MANFAAT
Sektor pertanian dan makanan

KUANTUM
RM400 juta

JANGKAAN PELAKSANAAN
Mulai Jun 2020



Maklumat lanjut: www.moa.gov.my • www.agrobank.com.my

Program SMART Sawah Berskala Besar telah dilaksanakan di Kampung Sungai Batu Pahat, Perlis sebagai salah satu usaha untuk mencapai sasaran kadar sara diri (SSR) beras sebanyak 75.0 peratus dalam tempoh Rancangan Malaysia Ke-12 (2021-2025). Program ini berpotensi untuk meningkatkan hasil dan mutu padi tempatan selain memberi manfaat

PENGENALAN

kepada lebih 30 pesawah yang terlibat di kawasan tersebut. Selain itu, Klinik Usahawan Muda di bawah Program Agropreneur Muda memfokuskan penglibatan golongan belia dalam pertanian moden. Klinik ini memberi persediaan dari segi ilmu pengetahuan berkaitan projek pertanian dan industri makanan yang ingin diceburi sekali gus membantu usahawan muda dalam menggerakkan ekonomi negara.

Dasar Agromakanan Negara 2.0 (DAN 2.0) yang digubal adalah seiring perkembangan Revolusi Industri 4.0 (IR 4.0) seperti penggunaan *Internet of Things* (IoT), Teknologi Pendigitalan, Teknologi Mekanisasi dan Automasi dalam sektor agromakanan. Perkembangan teknologi moden ini dapat membawa ke arah pertumbuhan ekonomi serta mengutamakan sekuriti dan nutrisi makanan.

Justeru, usaha ini akan melonjakkan sektor agromakanan ke satu dimensi yang lebih kompetitif dan efektif dari aktiviti pengeluaran, lepas tuai, pemborongan, peruncitan serta pengedaran. Pelan Tindakan Dasar Sekuriti Makanan 2021-2025 turut diperkenalkan dan dijangka beroperasi secara berfasa bermula 2022 bagi tujuan memperbanyakkan sumber dalaman dan mempelbagaikan sumber import selain memastikan kesiapsiagaan negara dalam menghadapi krisis sekuriti makanan.



SMART SAWAH BERSKALA BESAR (SBB)

RANCANGAN MALAYSIA KE-12 (RMK-12)

DASAR SEKURITI MAKANAN NEGARA 2021-2025

Bagaimana SBB memberi manfaat kepada pesawah?

Meningkatkan pendapatan golongan sasaran program iaitu para pesawah melalui:

Mengurangkan risiko dan kos penanaman padi yang sebelum ini ditanggung oleh pesawah sekaligus meningkatkan margin pendapatan pesawah.

Sebelum SBB

Purata pendapatan:

RM5,000
setahun



Selepas SBB

Sasaran purata pendapatan:

RM7,900
setahun

Sebelum SBB

Pendapatan bersih per hektar setahun:

RM5,400



Selepas SBB

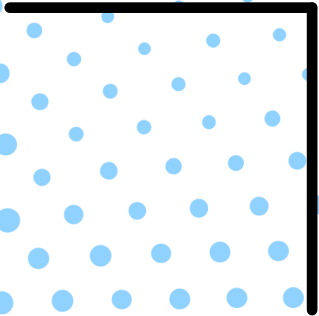
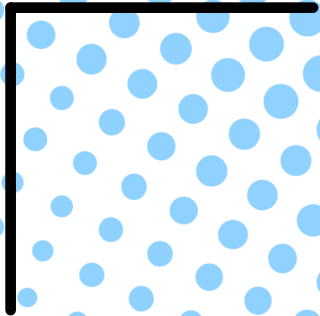
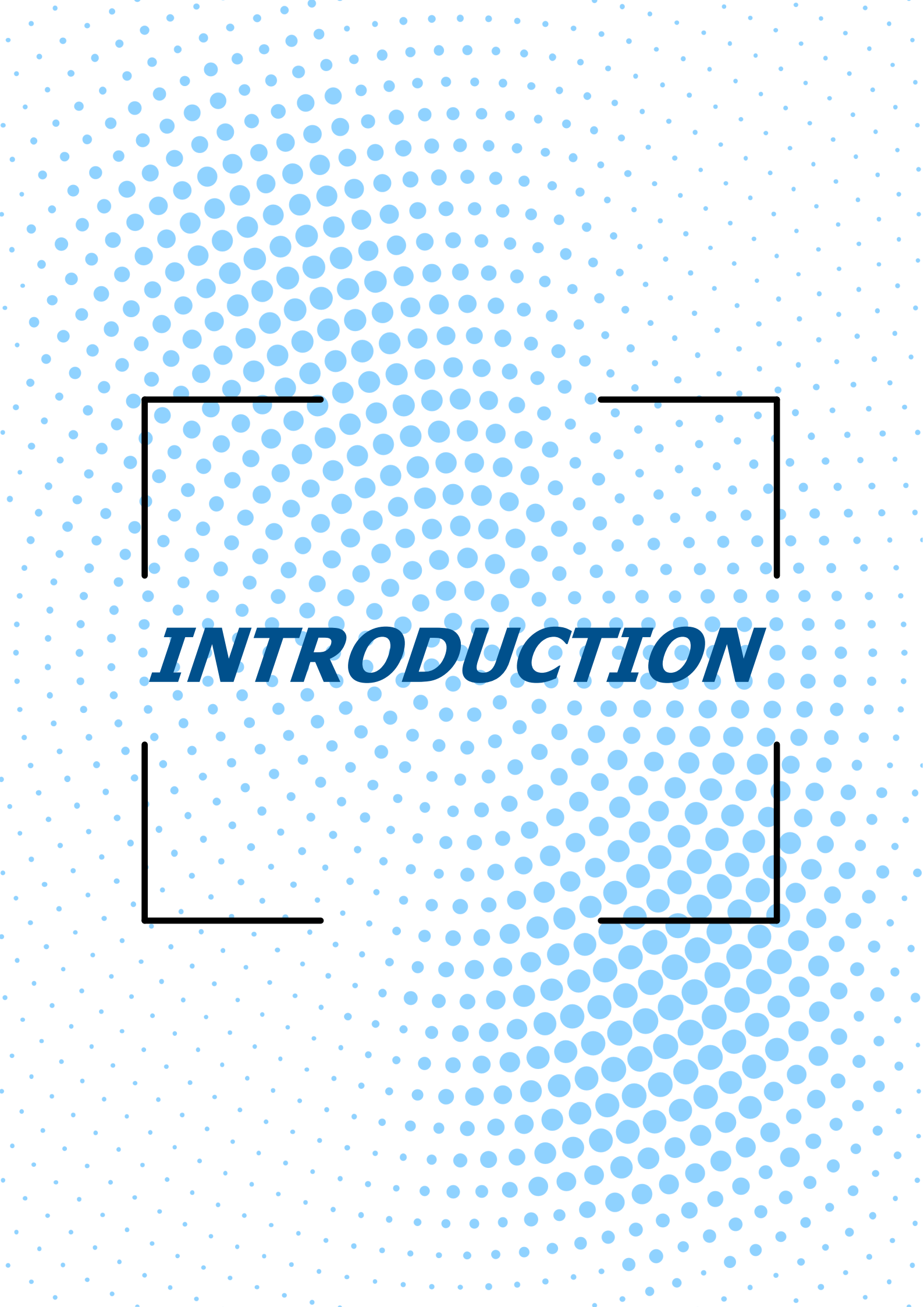
Sasaran pendapatan bersih per hektar setahun: Sehingga

RM15,600
setahun*

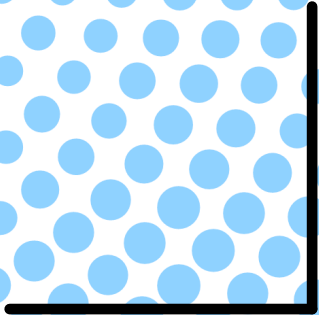
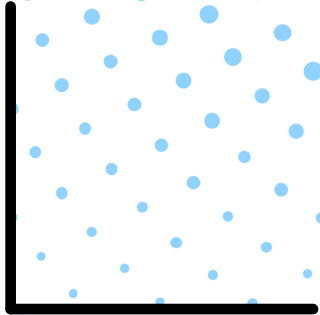
*Sekiranya purata produktiviti per hektar meningkat daripada 3.5 tan mentrik kepada sasaran 7.0 tan mentrik.

www.mafi.gov.my | @mafimalaysia





INTRODUCTION



Muka surat ini sengaja dibiarkan kosong
This page is deliberately left blank

GLOBAL AGRICULTURE SCENARIO

Everyone in the world needs food, yet agricultural production tends to be concentrated in the largest countries as well as those with the most accommodative climate in their growing areas. Population size is also crucial because the bulk of agricultural production is still consumed domestically, despite the rapid growth of international trade in agricultural products. The world's top four food-producing countries such as China, India, the United States of America, and Brazil share the advantages of large populations, ample land area and climate zones suitable for agricultural activity.

Globally, it is estimated that 1.3 billion people are predominantly fed through international trade¹ and more countries are still reliant on food imports. International food security is dependent on functional global supply chains, from the producer to the end consumer (FAO, 2020)^{2,3}.

Today, the international community has recognised the urgent needs for action to strengthen food systems, that encompass producing, processing, transporting and consuming food. According to FAO, the ability of agrifood systems to ensure food security and nutrition enough for all will depend not only on their capacities, but also on the functioning of other interconnected socioeconomic and environmental systems such as transport, education, health, water, soil and energy, as well as social protection mechanisms.

An estimated 1.3 billion people obtain food through international trade (Wolff, 2020).

Agri-food systems component encompass primary agricultural production of food and non-food products (from crops, livestock, fisheries, forestry and aquaculture), production of food of non-agricultural origin (e.g. synthetic meat), the food supply chain from producer to consumer and the final consumer of food. Globally, these systems produce some 11 billion tonnes of food each year and form the backbone of many economies. Today, however, agri-food systems fail to keep about 10 per cent of the world's population free from hunger⁴.

Demographic and environmental pressures make agri-food systems' resilience ever more imperative as a rapidly growing global population drives



increased demand for food. At the same time, shocks and stresses have threatened both agricultural production until downstream stages of agrifood systems. Climate variability and extremes, conflict, economic shocks and growing inequalities are keeping the world off track in achieving zero hunger by 2030. The COVID-19 pandemic exacerbated an already deteriorating situation, with about 150 million more people facing hunger in 2021⁵ (The SDG Report 2022, UN). To feed a world population forecast to reach 9.7 billion in 2050⁶, agriculture sector may need to produce 40 - 54 per cent more food, feed and biofuel feedstock⁷.

Moving towards to be sustainable, agriculture must meet the needs of present and future generations, while ensuring profitability, environmental health, and social and economic activity. Sustainable Food and Agriculture (SFA) contribute to all four pillars of food security – availability, access, utilization, and stability. FAO promotes SFA to achieve Zero Hunger and Sustainable Development Goals (FAO, 2021)⁴.



¹ Wolff, A. (2020). DDG Wolff: Reliance on international trade for food security likely to grow. World Trade Organisation. Available online at: http://www.wto.org/english/news_e/news20_e/ddgaw_30apr20_e.htm

² FAO (2020). Impacts of coronavirus on food security and nutrition in Asia and the Pacific: building more resilient food systems. Available online at: <http://www.fao.org/3/ca9473en/CA9473EN.pdf>

³ Tortajada, C. & Lim, N. 2020. Food Security and Covid-19: Impacts and resilience in Singapore. Available online at: <https://www.frontiersin.org/articles/10.3389/fsufs.2021.740780/full>

⁴ FAO (2021). The state of food and agriculture 2021: Making agrifood systems more resilient to shocks and stresses. Available online at: <https://www.fao.org/3/CB4476EN/online/CB4476EN.html#chapter>

⁵ United Nations (2022). The Sustainable Development Goals Report 2022.

⁶ Low, B., Ostrom, E., Simon, C. & Wilson, J. 2002. Redundancy and diversity: do they influence optimal management? In F. Berkes, J. Colding & C. Folke, eds. Navigating social-ecological systems: Building resilience for complexity and change, pp. 83–114. Cambridge, Cambridge University Press.

⁷ Stone, J. & Rahimifard, S. 2018. Resilience in agri-food supply chains: a critical analysis of the literature and synthesis of a novel framework. Supply Chain Management, 23(3): 207–238.

MALAYSIA AGRICULTURE SCENARIO

The agricultural sector plays an important role in the economy of Malaysia. In the context of Malaysia, the views expressed in terms of the country's food production are below its actual potential even though the country has fertile land and nature that is suitable for producing its own vegetables, fruits and livestock. The use of technology is low and the production of agricultural inputs is also low, so that Malaysia loses its competitiveness in food production (Profesor Datin Paduka Fatimah Arshad, UPM, Utusan Malaysia). As a result, the 2020 Global Food Security Index (GFSI) ranked Malaysia at 43 with scores of 69.3. GFSI considers the issue of food affordability, availability, quality and safety, and natural resources and resilience across 113 countries. The index is based on dynamic benchmarking that measures the drivers of food security in developing and developed countries.

Along with the post-pandemic recovery phase, the government has taken various efforts and initiatives to ensure food supply adequacy. Perlindungan Rakyat dan Pemulihan Ekonomi (PEMULIH) package was introduced as one of the government's initiatives to restore economy. A campaign, Dana Agromakanan Keluarga Malaysia is a collaboration between Agrobank and the Ministry of Agriculture and Food Industry (MAFI) which was launched on 23rd October 2021. A total of RM60 million from RM110 million is allocated for Agro-Food Financing Fund (DPA) as funding for agricultural entrepreneurs in the food industry to increase local production and reduce imports.

The government has allocated RM350 million for PEMULIH through the National Economic Recovery Package (PENJANA) as a form of financial assistance to micro-entrepreneurs, especially for agro-food entrepreneurs from the B40 group. From that amount, RM30 million was allocated to implement the Program Kebun Komuniti to enhance the economy for the

continuity of the country's food supply. This program benefits both urban and rural communities engaged in short-term crop production activities such as vegetables in addition to being able to face difficulties during pandemic. Particular individuals and communities each receive RM500 and RM5,000 in allocations including agriculture input and advisory services.

Agriculture and Food Sector Support

OBJECTIVE
To provide financial relief for agriculture and food players affected by COVID-19 and MCO

BENEFICIARIES
Agriculture and food sector

QUANTUM
RM400 million

TIMELINE
Beginning June 2020

Dedicated support for the Agriculture and Food sector as follows:

- Micro credit financing under Agrobank for agropreneurs (including commodity players) totalling of **RM350 million with interest rate of 3.5%**
 - Maximum loan size: RM50,000
 - Tenure of loan: 5 years
- Agrofood workforce mobility via incentives for pioneer companies to train and educate workforce to explore opportunities in agriculture and plantations
- In-kind benefits for Urban Farming** (e.g. Fertilisers, Seeds, Infrastructure, Equipment, Advisory and Training) worth **RM500** per person and **RM 50,000** per community



For more information: www.moa.gov.my • www.agrobank.com.my

A Large-Scale SMART Paddy program has been conducted in Kampung Sungai Batu Pahat, Perlis as part of initiative to achieve the rice self-sufficiency ratio (SSR) target of 75.0 per cent during the 12th Malaysia Plan (2021-2025). This program is potential to improve the yield and quality of local rice in addition to benefiting more than 30 farmers in that area. Other than that, Young Entrepreneur Clinic under Young Agropreneur Program has targeted youth participation in modern agriculture. This clinic provides knowledge for those who wish to venture into agricultural and food industry projects thus guiding young entrepreneurs in driving the national economy.

INTRODUCTION

National Agrofood Policy 2.0 (NAP 2.0) which was enacted along with the development of Industrial Revolution 4.0 (IR 4.0) such as the use of Internet of Things (IoT), Digitalization Technology, Mechanization and Automation Technology in the agrofood sector. The development of this modern technology can lead to economic growth as well as prioritizing food security and nutrition.

Thus, these initiatives will boost the agrofood sector to a more effective and competitive dimension from the production activities,

post-harvest, wholesale, retail and distribution can be achieved. Food Security Policy Action Plan 2021-2025 has been introduced and will be established and is expected to operate in phases from 2022 with to increase internal resources and diversifying import sources as well as ensuring the country's readiness in facing food security crisis.

