



# BUSINESS OPPORTUNITIES IN THE AGRICULTURE AND AGRIFOOD SECTOR



DEPARTMENT OF AGRICULTURE AND AGRIFOOD  
MINISTRY OF PRIMARY RESOURCES AND TOURISM  
BRUNEI DARUSSALAM

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MARCH 2022

# INTRODUCTION

- Agriculture and agrifood industries are part of the major primary resources and processing sectors which can contribute to the growth of Brunei's Gross Domestic Product (GDP), exports and Economic Diversification. As of 2020, the agriculture industry contributed 0.6% towards the country's GDP.
- Through our strategic plan, the agriculture and agrifood sector output is expected to increase exponentially with the livestock and crops industries as the leading contributors, followed by the agrifood processing industry.
- To further develop the agriculture and agrifood sector, particularly livestock and crops industries, the Department of Agriculture and Agrifood has taken efforts to encourage the participation of local and foreign direct investment (FDI) as well as to increase the domestic and export market access.

# **VISION & MISSION**

## **DEPARTMENT OF AGRICULTURE AND AGRIFOOD**

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### **VISION**

Towards Increasing Production on Agriculture and Agrifood Based Industries through Increasing Productivity And High Technology Oriented For Domestic and Export Market

### **MISSION**

To Stimulate The Growth of Agriculture and Agrifood-Based Industries through High-Technology and Export, Encouraging Progressive Involvement of Local and Foreign Direct Investment, while focusing on High-Yield Production inclusive of the Primary and Processing Industries

# STRATEGIC THRUST

## **Growth**

“...in the last few years, the growth of Gross Domestic Product (GDP) has slowed down which requires us to double domestic production, especially in the non-oil and gas sector.”

(Titah excerpt of His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah ibni Al-Marhum Sultan Haji Omar 'Ali Saifuddien commemorating the New Year 2016)



## **Productivity**

“...the country's economic growth can be stimulated by giving priority to research and the use of latest technology.”

(Titah excerpt of His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah ibni Al-Marhum Sultan Haji Omar 'Ali Saifuddien commemorating the New Year 2016)



## **Export**

“...It is important to remember that having a small domestic market is not an excuse for slow production growth and every company, whether private or government-owned, should be capable of trading/exporting their products and services outside the country.”

(Titah excerpt of His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah ibni Al-Marhum Sultan Haji Omar 'Ali Saifuddien commemorating the New Year 2016)



## **Sustainable**

The implementation of strategies and programs to increase the output of these sectors must be sustainable. In order to reduce dependency on government funding, 'public-private-partnership', participation of local and foreign investors and other appropriate approaches will be explored.



# STRATEGIC OBJECTIVES

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To enhance the growth of agriculture and agrifood output continuously every year so as to contribute to the GDP growth, export growth and could lead to economic diversification;



To increase productivity of agriculture and agrifood industries continuously through the use of technology, modern techniques and encouraging the active participation of local and foreign direct investors (FDI);

## STRATEGIC OBJECTIVE (CONTINUED)

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To reduce the dependence on imports of agricultural based products, allow the imports of raw materials for the purpose of generating the agrifood processing industry growth;



To reduce dependency on government expenditure in the implementation of strategies and programs while increasing output growth in agriculture and agrifood sector by other methodologies such as Public Private Partnership (PPP), joint ventures and others;

# STRATEGIC OBJECTIVE (CONTINUED)

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To create the investment opportunities and local businesses in the agriculture and agrifood sector which will ultimately contribute to the creation of local employment;



To implement preventive measures and controls in order to protect the agriculture and agrifood industries from plant diseases, pests and animal diseases for the sustainability of industries concerned;

## STRATEGIC OBJECTIVE (CONTINUED)

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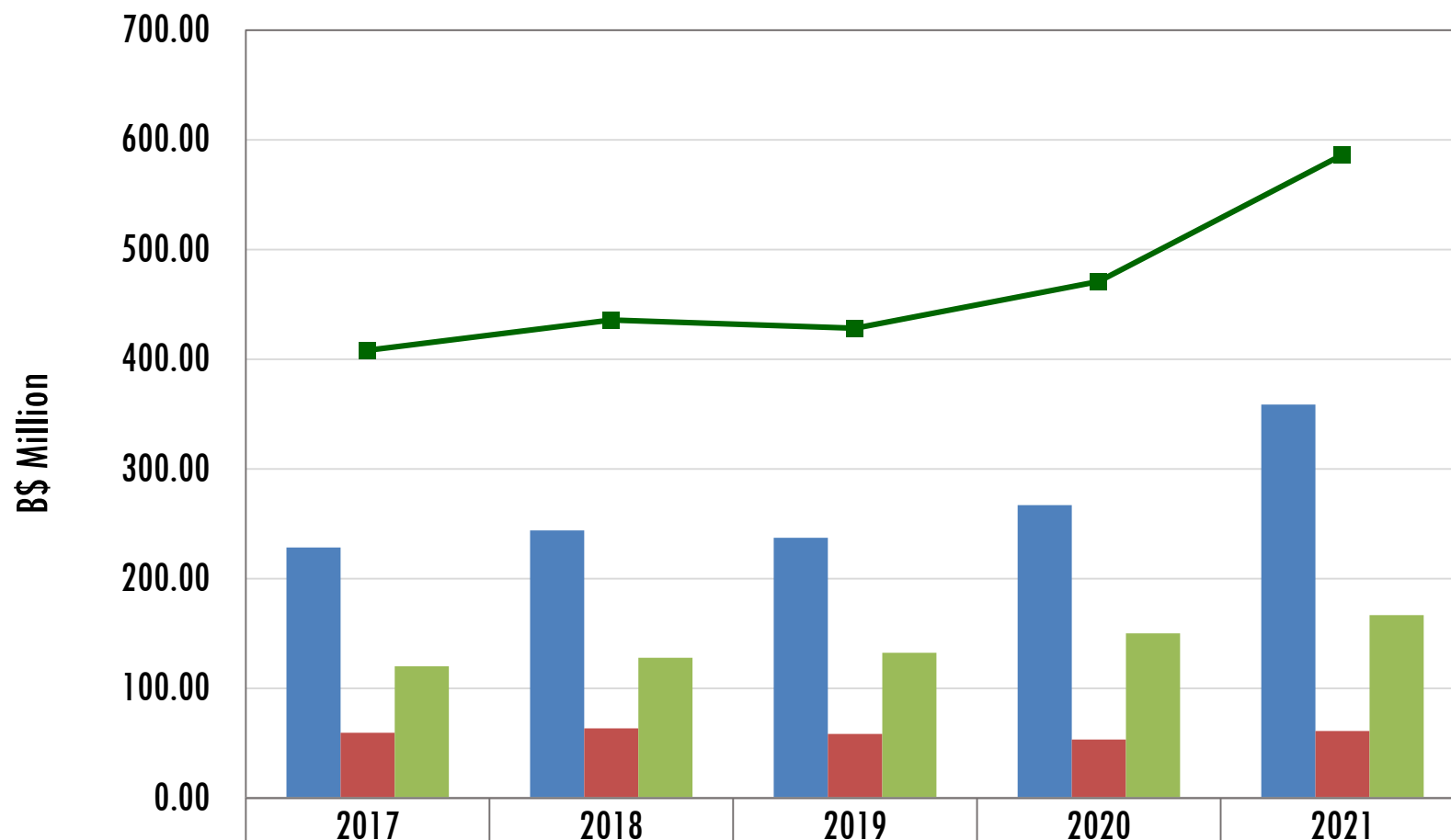


To ensure quality assurance and safety of the food industry based on agriculture for the welfare of the people



# CURRENT STATUS

# AGRICULTURE AND AGRIFOOD INDUSTRIES GROSS OUTPUT TREND AT CURRENT PRICE 2017 - 2021



Livestock Industry	228.38	244.13	237.39	267.17	358.77
Crops Industry	59.65	63.69	58.41	53.46	61.10
Agrifood Industry	120.19	127.98	132.47	150.23	166.69
Total	408.22	435.80	428.27	470.86	586.56

# LIVESTOCK INDUSTRY DEVELOPMENT 2021

COMMODITY	LOCAL		IMPORT		TOTAL	SELF SUFFICIENCY
	Quantity (Unit)	Retail Value (\$ Million)	Quantity (Unit)	CIF Value (\$ Million)	Quantity (Unit)	%
Broilers (mt)	30,587.09	139.73	223.91	0.69	30,811.00	99.27%
Eggs (Million eggs)	172.74	28.91	0.83	0.11	173.57	99.52%
Beef – Buffalo & Cattle (mt)	3,825.13	83.95	685.67	6.78	4,510.80	84.80%
Goat & Sheep (mt)	131.69	3.688	460.15	4.65	591.84	22.25%
Day old chicks (Million heads)	18.99	22.79	2.60	2.08	21.60	87.95%
Fertilized eggs (Million eggs)	12.01	9.61	8.63	5.36	20.64	58.19%
Miscellaneous Livestock (mt)	734.46	3.80	n/a	n/a	n/a	n/a
Livestock Feed (mt)	72,676.26	66.28	98,678.17	57.35	171,354.44	42.41%
<b>TOTAL</b>		<b>358.77</b>		<b>77.02</b>		

Note: CIF – Cost, Insurance, Freight

# CROPS INDUSTRY DEVELOPMENT 2021

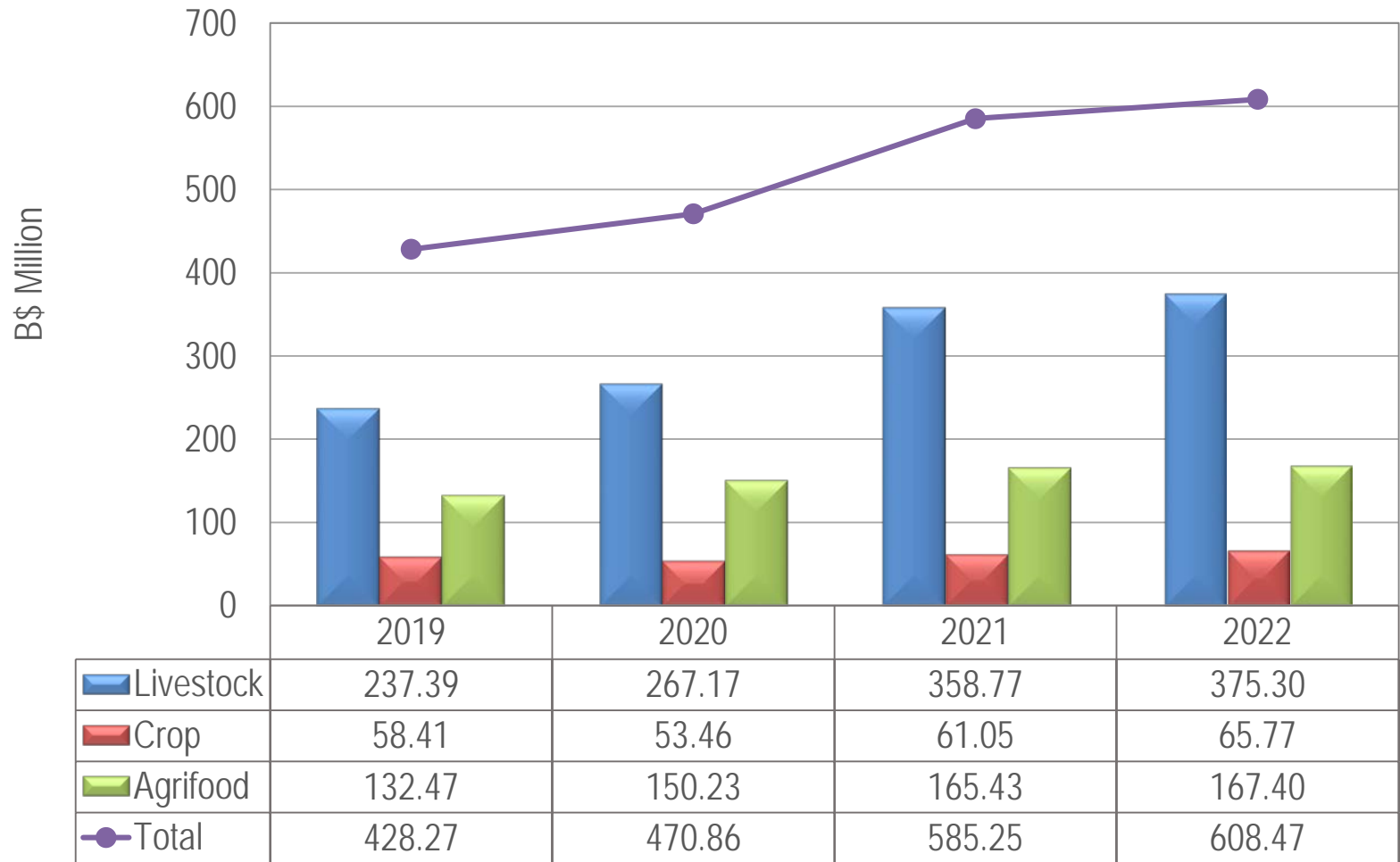
COMMODITY	LOCAL		IMPORT		TOTAL QUANTITY (UNIT)	SELF SUFFICIENCY
	Quantity (Unit)	Retail Value (\$ Million)	Quantity (Unit)	CIF Value (\$ Million)		
Tropical Vegetables (mt)	7,486.10	25.06	10,756.71	19.84	11,261.47	41.04%
Tropical Fruits (mt)	6,273.87	19.99	15,075.08	37.88	14,960.50	29.39%
Paddy (mt)	4,110.75	6.58	0.00	0.00	n/a	n/a
Miscellaneous crops (mt)	1,619.92	4.88	16,311.63	19.98	17,929.64	9.03%
Ornamental Plants (plants)	818,757	4.55	209,402	0.63	1,023,079	79.63%
Cut Flowers (Cuts)	51,883	0.04	1,205,756	1.16	1,257,639	4.13%
TOTAL		61.10		79.50		

Note: CIF – Cost, Insurance, Freight

Rice self-sufficiency – 9.11%

# TARGETS AND TRAJECTORIES

## 2019 - 2022



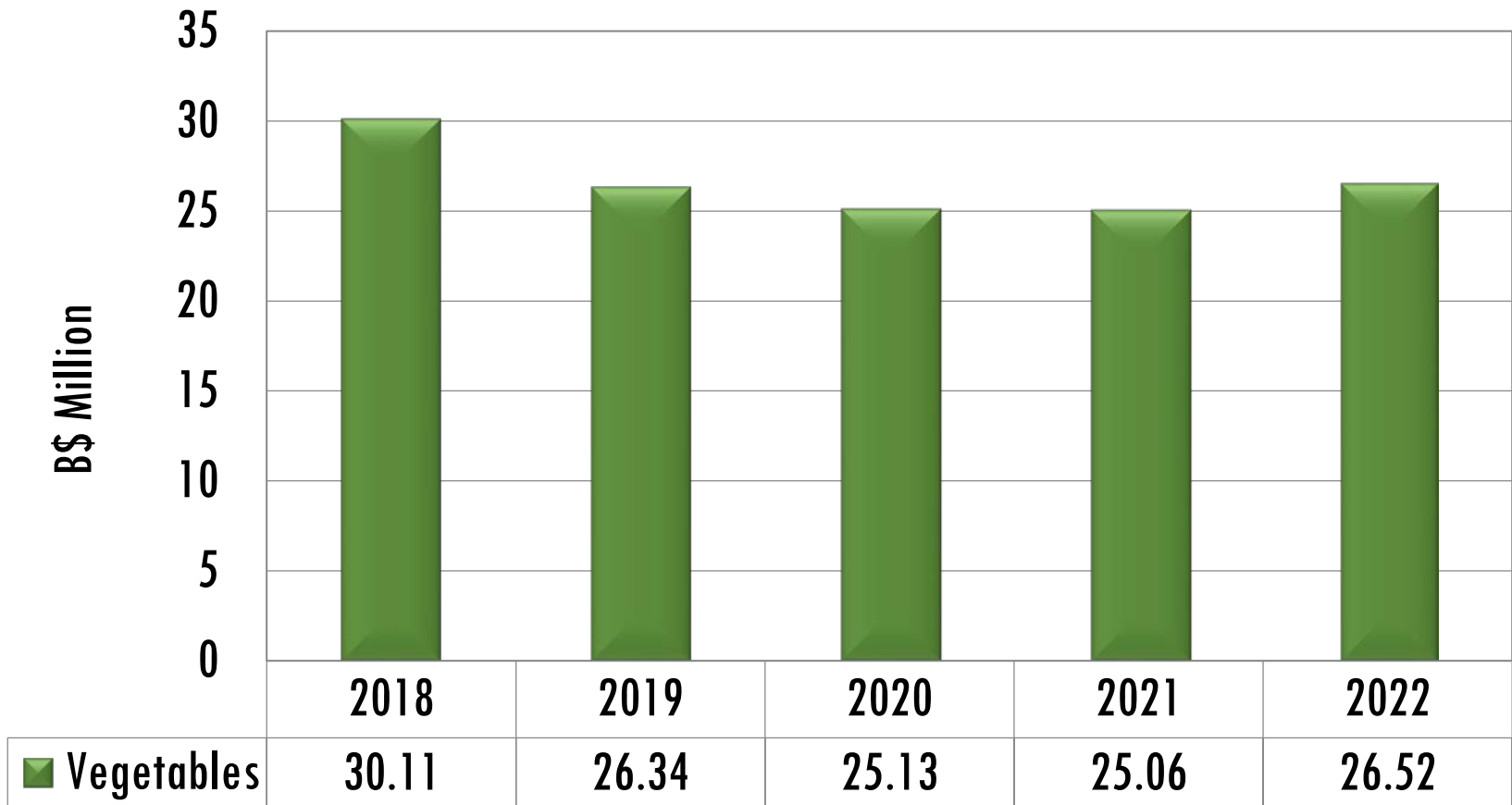
# FOCUS INDUSTRIES



# STATUS OF VEGETABLE INDUSTRY 2021

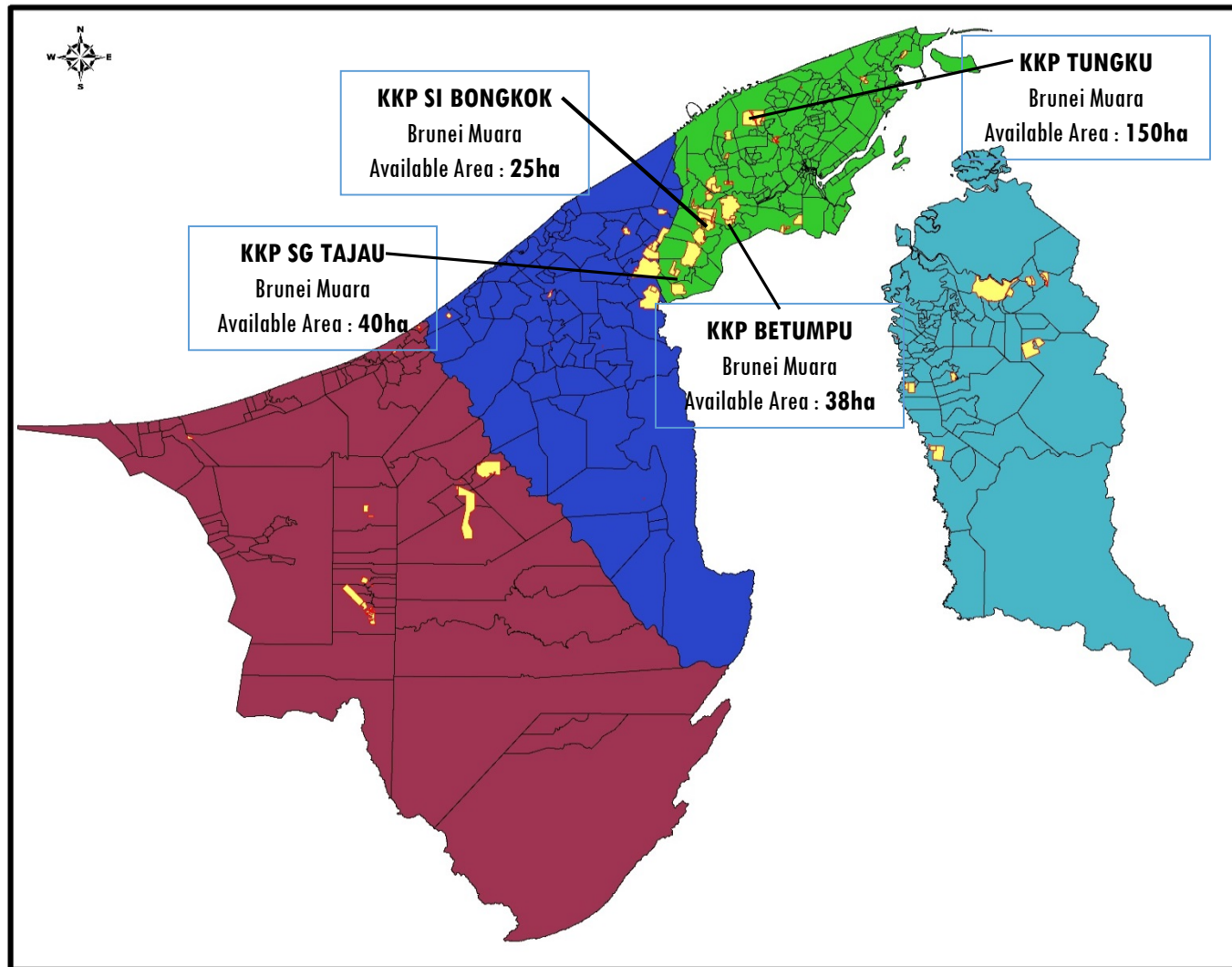
<b>Total Consumption</b>	<b>18,242.8 mt</b>	<b>Import</b>	<b>10,756.7 mt</b>
Tropical	11,264.1 mt	CIF Value (B\$)	\$19.84 million
Temperate	6,978.7 mt	Est. Retail Value (B\$)	\$35.71 million
<b>Est. Retail Value (B\$)</b>	<b>\$60.77 million</b>	Percentage Import	59.0 %
<b>Per Capita Consumption</b>	<b>42.4 kg</b>		
		<b>Average Retail Price (B\$)</b>	\$1.69 – \$17.16 /kg
<b>Local Production</b>	<b>7,486.10 mt</b>	<b>Average CIF Price (B\$)</b>	
<b>Retail Value (B\$)</b>	<b>\$25.06 million</b>	Tropical	\$0.33 – \$12.77 /kg
Percentage Production	41.0 %	Temperate	\$0.93 – \$32.20 /kg
Tropical Vegetables	66.5 %		
<b>Area Developed</b>	<b>1,259.8 ha</b>	<b>Brunei Population Size</b>	<b>429,999 people</b>
<b>No. of Entrepreneurs</b>	<b>672 entrepreneurs</b>		

# VEGETABLE INDUSTRY TARGETS 2018 - 2022



Note : 2018 - 2021 actual data

# VEGETABLE INDUSTRY AREAS



# FOCUS & TARGET TECHNOLOGY

## VEGETABLE INDUSTRY



Hydroponics



LED Lighting



Vertical Farming



Fertigation



Greenhouses



Hanging  
Fertigation

Photos sources:

<http://www.powerhousehydroponics.com/4-commercial-vertical-farms-worth-attention/>

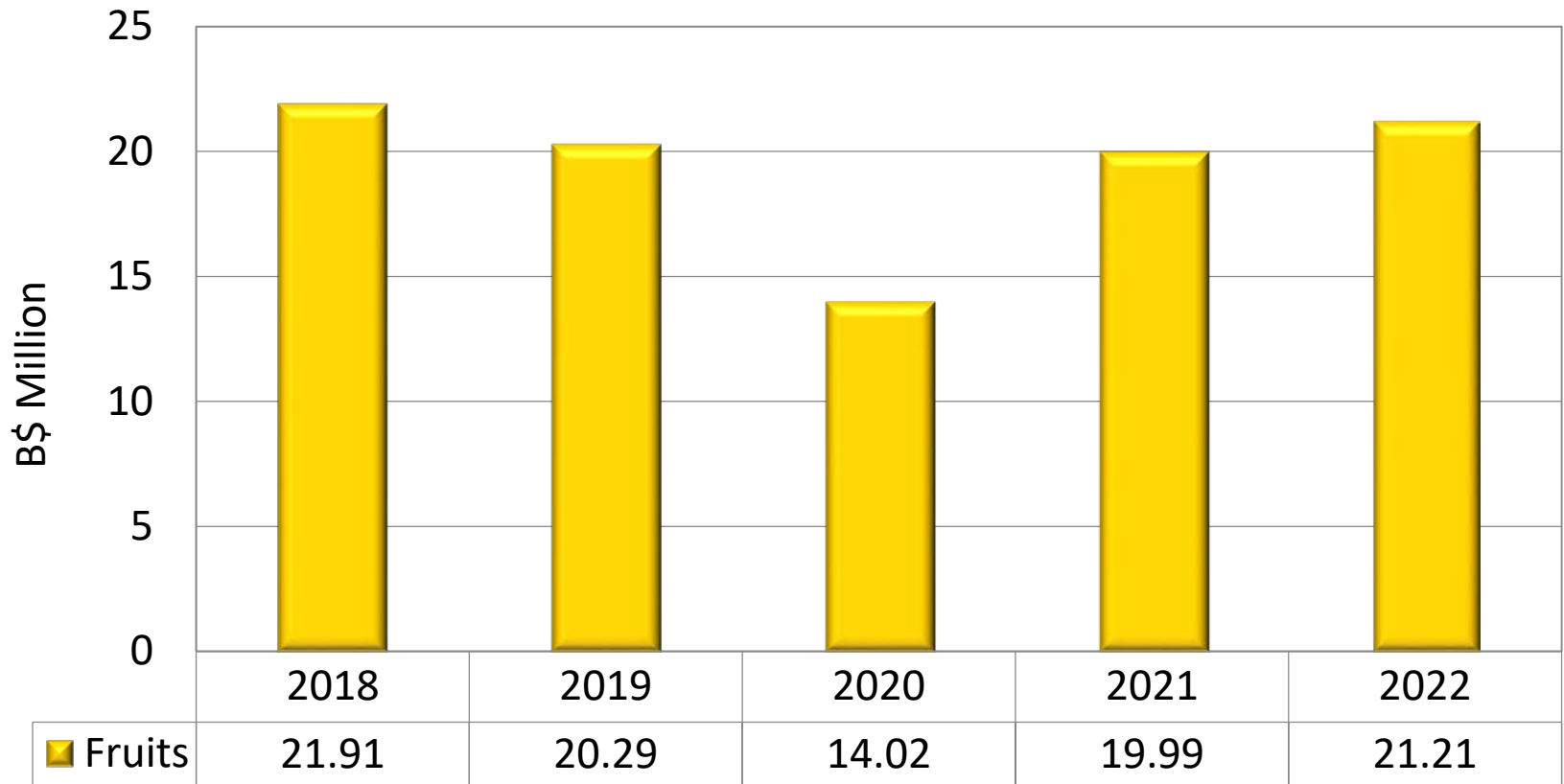
<http://www.eco-business.com/news/panasonic-ventures-into-farming-in-singapore/>



# STATUS OF FRUITS INDUSTRY 2021

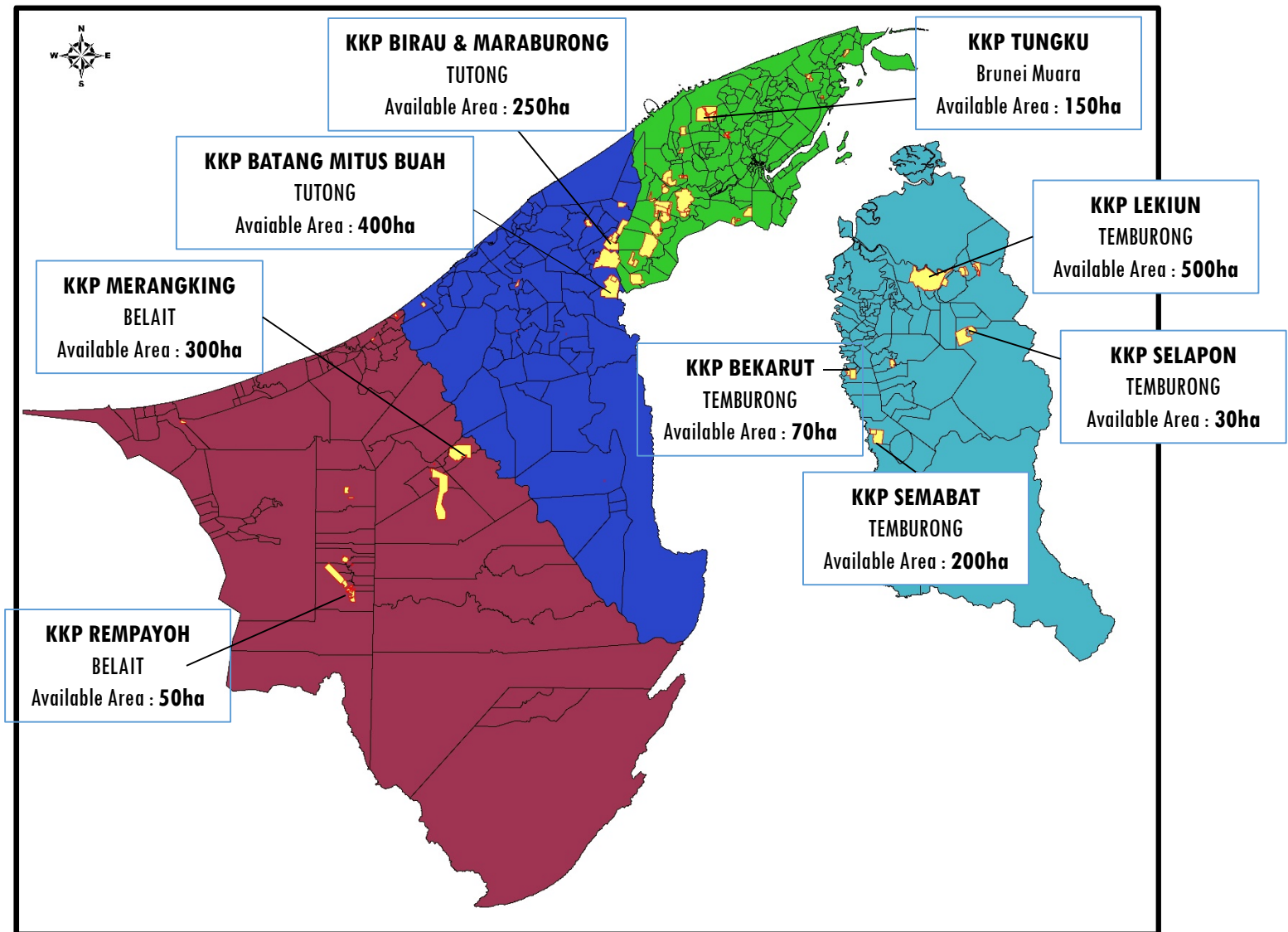
<b>Total Consumption</b>	<b>21,348.9 mt</b>	<b>Import</b>	<b>15,075.1 mt</b>
Tropical	14,960.7 mt	CIF Value (B\$)	\$37.88 million
Temperate	6,388.3 mt	Est. Retail Value (B\$)	\$61.59 million
<b>Est. Retail Value (B\$)</b>	<b>\$81.58 million</b>	Percentage Import	70.6 %
<b>Per Capita Consumption</b>	<b>49.6 kg</b>		
		<b>Average Retail Price (B\$)</b>	\$0.52 – \$11.34 /kg
<b>Local Production</b>	<b>6,273.9 mt</b>	<b>Average CIF Price (B\$)</b>	
<b>Retail Value (B\$)</b>	<b>\$19.99 million</b>	Tropical	\$0.33 – \$27.11 /kg
Percentage Production	29.4 %	Temperate	\$1.82 – \$44.56 /kg
Tropical Vegetables	41.9 %		
<b>Area Developed</b>	<b>3,423 ha</b>	<b>Brunei Population Size</b>	<b>429,999 people</b>
<b>No. of Entrepreneurs</b>	<b>2,449 entrepreneurs</b>		

# FRUITS INDUSTRY TARGETS 2018 - 2022



Note : 2018 - 2021 actual data

# FRUITS INDUSTRY AREAS



# FOCUS & TARGET TECHNOLOGY

## FRUITS INDUSTRY



Drip Irrigation



Fertigation



Greenhouses

Photos sources:

<http://www.powerhousehydroponics.com/4-commercial-vertical-farms-worth-attention/>

<http://www.eco-business.com/news/panasonic-ventures-into-farming-in-singapore/>



# STATUS OF FLORICULTURE INDUSTRY 2021

## Ornamental Plants

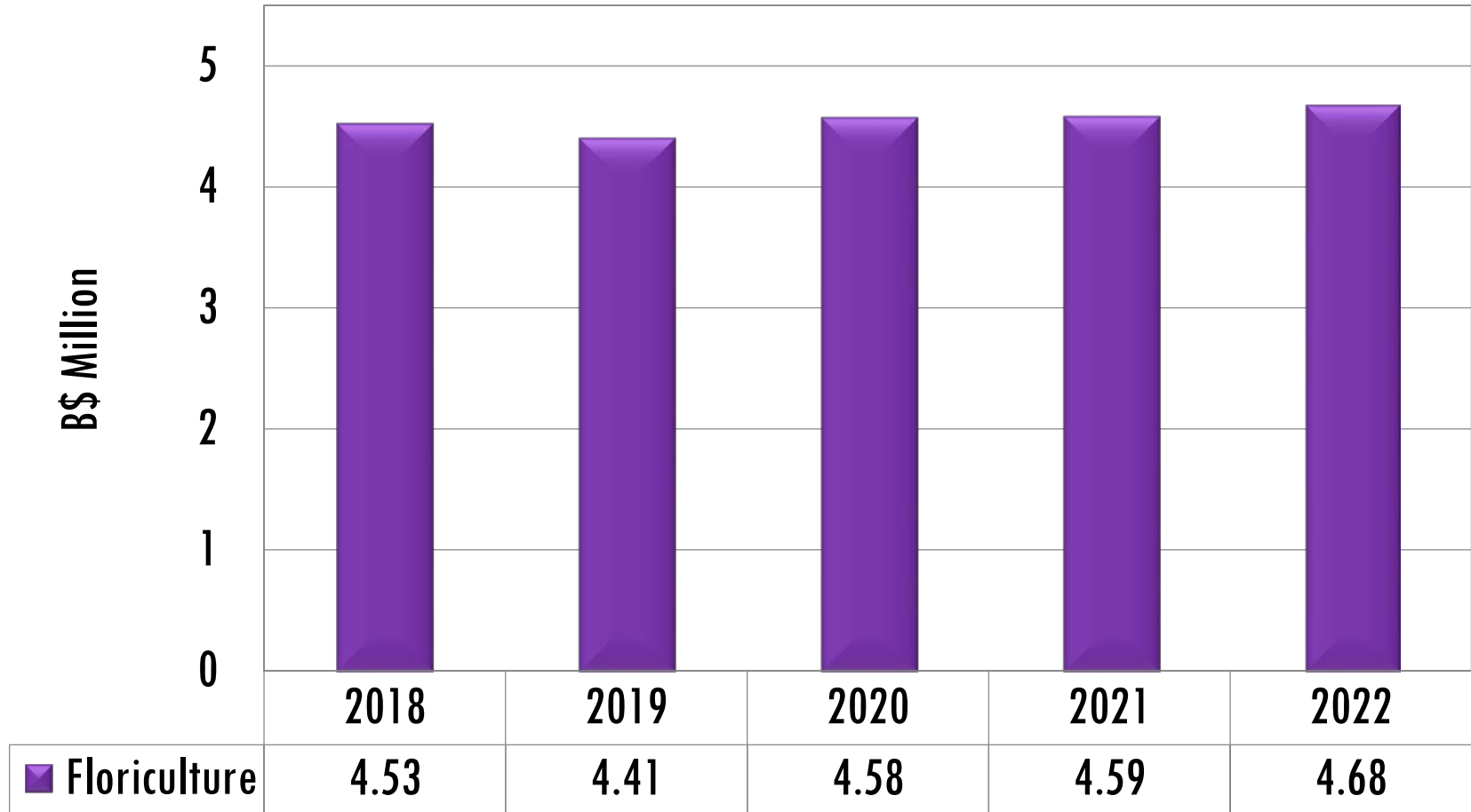
<b>Total Consumption</b>	<b>1,028,159 plants</b>
Est. Retail Value (B\$)	\$ 5.56 million
<b>Local Production</b>	<b>818,757 plants</b>
Retail Value (B\$)	\$4.55 million
Percentage Production	79.6 %
<b>Total Import</b>	<b>209,402 plants</b>
CIF Value (B\$)	\$0.63 million
Est. Retail Value (B\$)	\$1.01 million
Percentage Import	20.4 %
Average Retail Price (B\$)	\$2.67 – \$20.26 /plant
Average CIF Price (B\$)	\$0.01 – \$1,418.35 /plant

## Cut Flowers

<b>Total Consumption</b>	<b>1,257,639 cuts</b>
Est. Retail Value (B\$)	\$1.90 million
<b>Local Production</b>	<b>51,883 cuts</b>
Retail Value (B\$)	\$0.04 million
Percentage Production	<b>4.13 %</b>
<b>Total Import</b>	<b>1,205,756 cuts</b>
CIF Value (B\$)	\$1.16 million
Est. Retail Value (B\$)	\$1.86 million
Import (%)	95.9 %
Average Retail Price (B\$)	\$0.74 – \$1.00 /cut
Average CIF Price (B\$)	\$0.14 – \$49.00 /cut

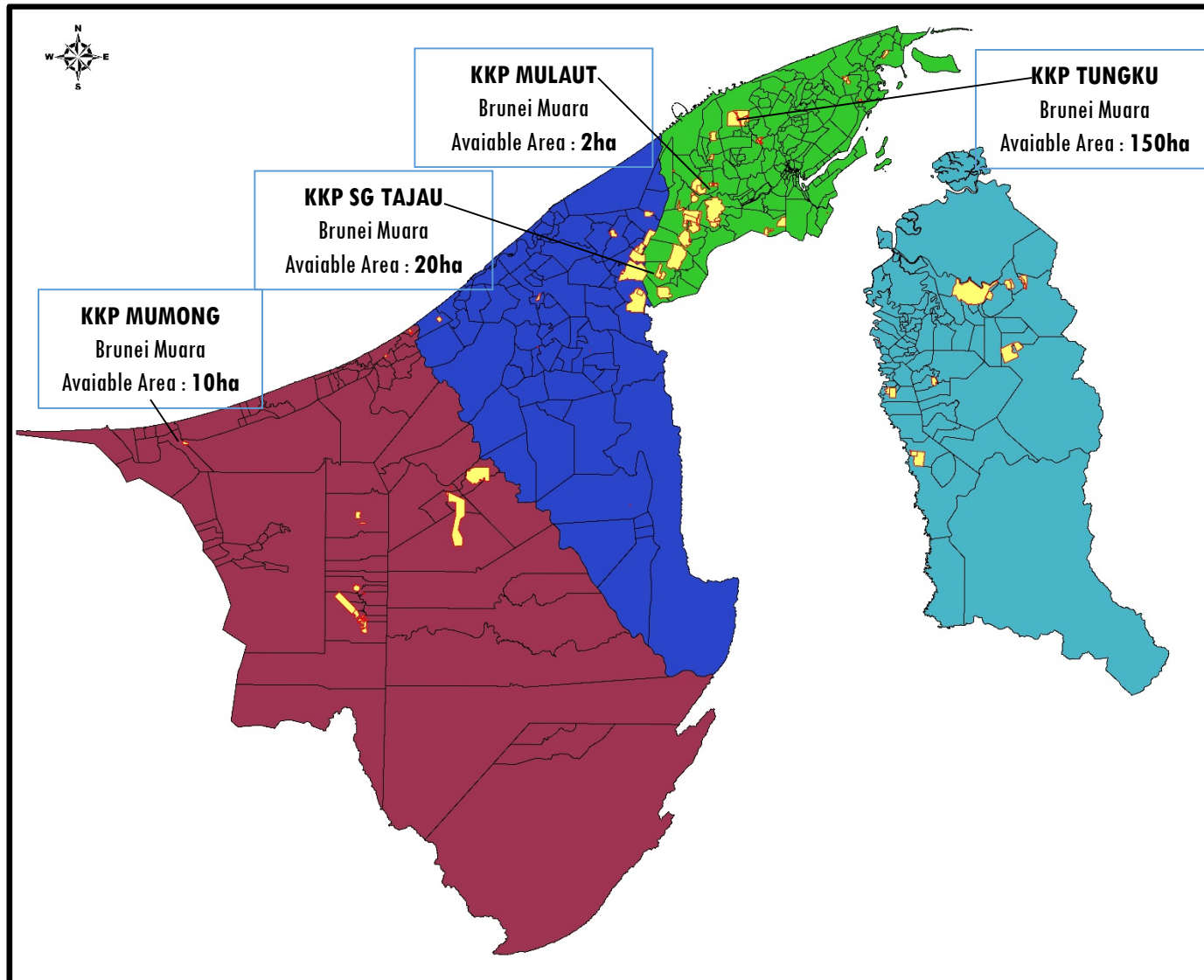
# FLORICULTURE INDUSTRY TARGETS

## 2018 - 2022



Note : 2018 - 2021 actual data

# FLORICULTURE INDUSTRY AREAS



# FOCUS & TARGET TECHNOLOGY FLORICULTURE INDUSTRY



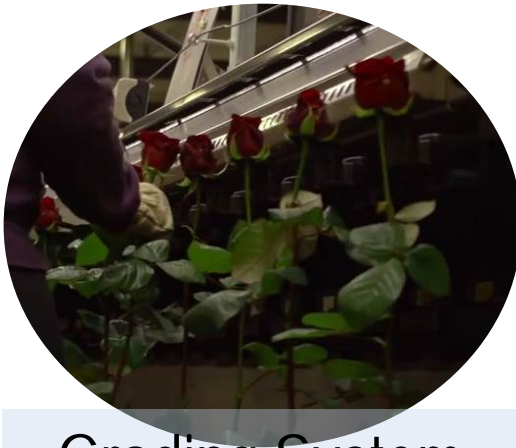
Blackout Screens



LED Lighting



Benching System



Grading System



Packaging System



# STATUS OF PADDY INDUSTRY 2021

<b>Total Consumption</b>	4,110.75 mt
Est. Retail Value (B\$)	\$6.58 million

<b>Local Production</b>	4,110.75 mt
Retail Value (B\$)	\$6.58 million

<b>Average Retail Price (B\$)</b>	
Local Paddy Scheme	\$1.60 /kg

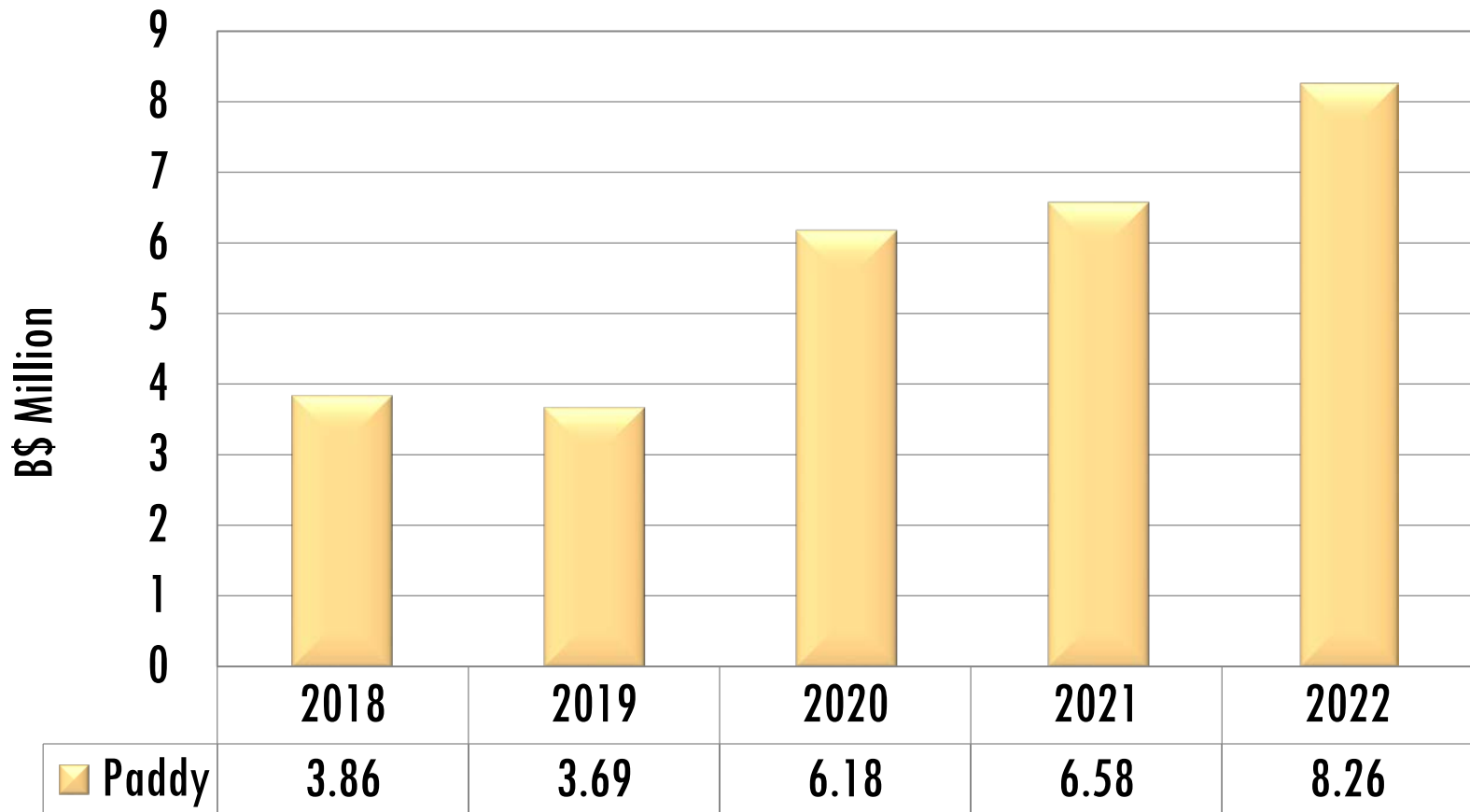
<b>Area Developed</b>	1,124.06 ha
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<b>No. of Entrepreneurs</b>	<b>524 Entrepreneurs</b>
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*Note:*

*There is no import for paddy*

# PADDY INDUSTRY TARGETS 2018 - 2022



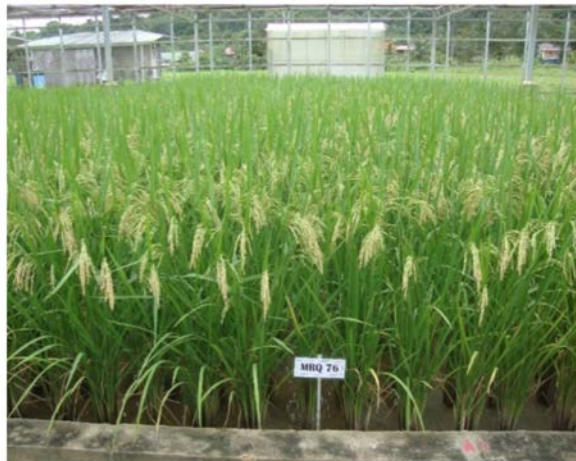
Note : 2018 - 2021 actual data

# FOCUS TECHNOLOGY - HIGH YIELDING VARIETIES



## **2009 - LAILA**

1<sup>st</sup> Modern inbred rice variety planted commercially (3mt/ha/season)



## **2016 - MRQ76**

Variety originated from Malaysia (4-6mt/ha/season)



## **2016 - BDR5**

Product of DOAA R&D. Targeted for rainfed areas (2mt/ha/season)



## **2018 - SEMBADA188**

Variety originated from Indonesia. (5-6mt/ha/season)



## **Nov 2020 - TITIH**

Variety selected through collaboration with Sunland Agritech Pte Ltd. (8.5mt/ha/season)

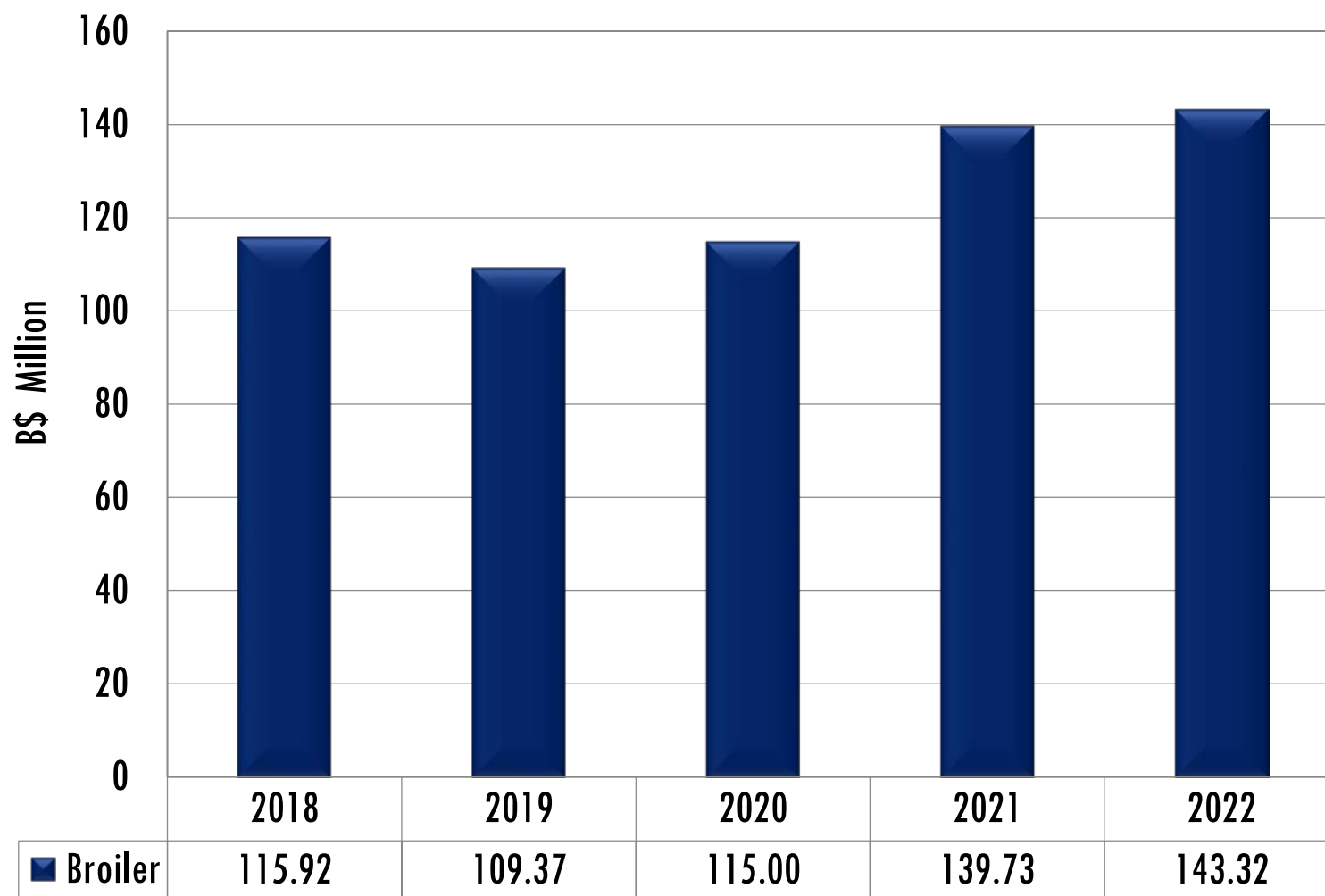


# STATUS OF BROILER INDUSTRY 2021

<b>Total Consumption</b>	30,811	mt
Retail Value (B\$)	\$140.72	million
Per Capita Consumption (kg/yr)	71.7	kg
<b>Total Day Old Chick</b>	21,595,869	birds
Local	18,994,032	birds
Import	2,601,837	birds
Price Per Chick (B\$)	1.20	/bird
<b>No. of Slaughter Broiler</b>	20,391,393	birds
Mortality Rate	8.11	%
Growth Period	7	weeks
Average Dressed Weight (kg)	1.50	/bird
No of Entrepreneurs	54	persons

<b>Local Production</b>	<b>30,587.1</b>	<b>mt</b>
Retail Value (B\$)	\$139.73	million
Percentage Production	99.27	%
<i>(not included processed product)</i>		
<b>Import (Chilled &amp; Frozen) *</b>	<b>223.9</b>	<b>mt</b>
CIF Value (B\$)	\$0.69	million
Est. Retail Value (B\$)	\$0.99	million
Percentage Import	0.7	%
<b>Average Retail Price (B\$)</b>		
Whole Chicken	\$4.57	/kg
<b>Average CIF Price (B\$)</b>		
Part	\$3.10	/kg
Further Processed	\$4.42	/kg
Processed	\$3.35	/kg
Brunei Population	429,999	persons

# BROILER INDUSTRY TARGETS 2018 – 2022



Note : 2018 - 2021 actual data

# FOCUS & TARGET TECHNOLOGY BROILER INDUSTRY



Automated feeding system



Automated water system



Ventilation fans



Efficient ventilation system



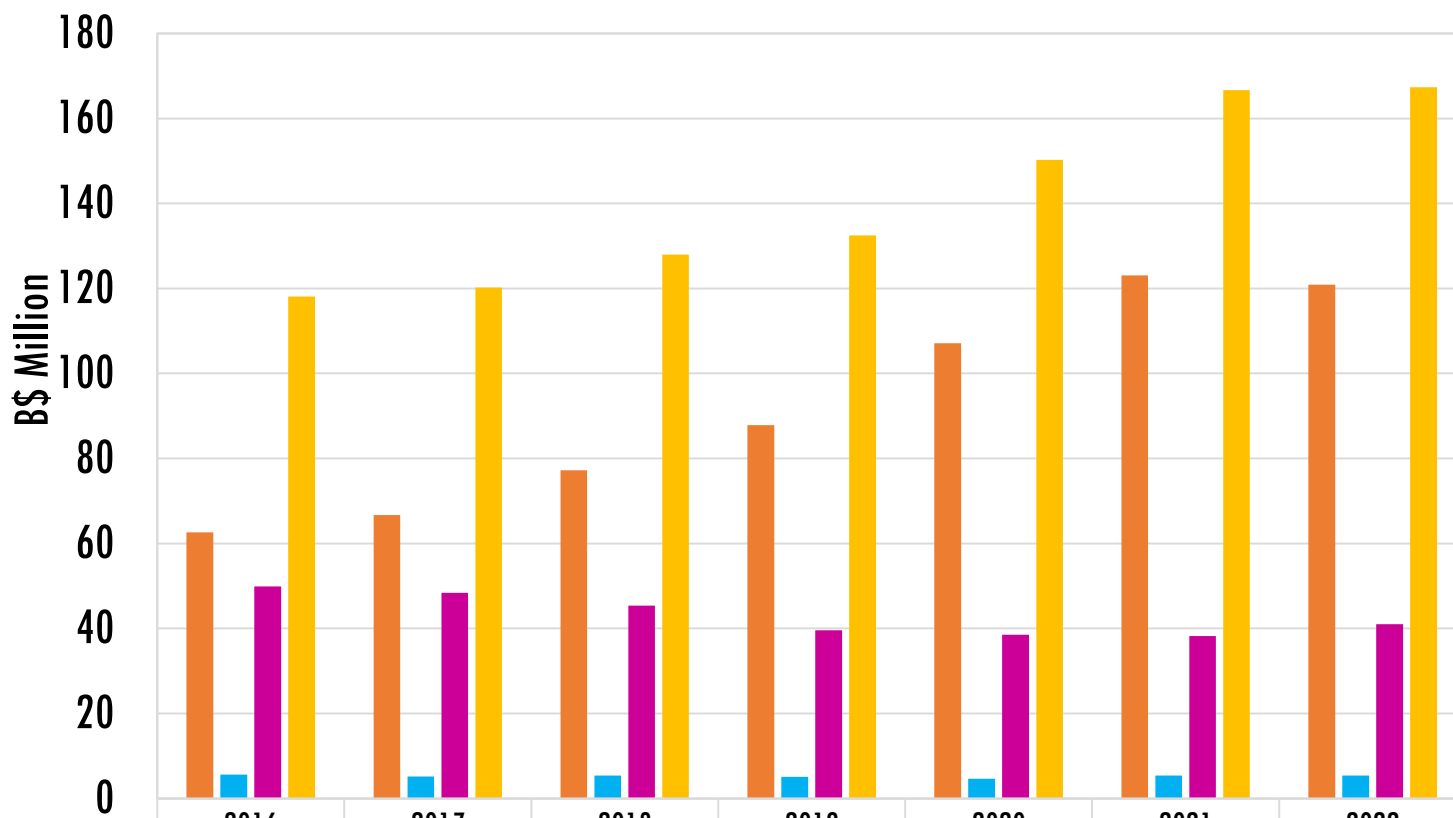
Air-conditioned system with air-conditioned wall

# STATUS OF AGRIFOOD INDUSTRY 2021

- This industry contributed B\$166.69 million or 28% of the agriculture and agrifood sector.
- Categorized into:
  - Livestock Process and Value-Added Products
  - Crop Process and Value-Added Products
  - Others (Food and Drink)



# AGRIFOOD INDUSTRY TARGET 2018 - 2022



Livestock Process and Value-Added Products	2016	2017	2018	2019	2020	2021	2022
Crop Process and Value-Added Products	5.59	5.19	5.42	5.09	4.63	5.4	5.4
Others (Food and Drink)	49.89	48.34	45.33	39.55	38.51	38.2	41
Total	118.11	120.19	127.97	132.47	150.22	166.69	167.31

Note : 2018 - 2021 actual data

# FOCUS & TARGET TECHNOLOGY AGRIFOOD INDUSTRY



Vacuum Packaging  
Machine



Horizontal Packaging  
Machine



Dough Sheeter



3 Tier Oven



Encrusting Machine

# INITIATIVES

## Land

- Agriculture Pilot Project
- Land Expansion
- Account Managers

## Labour

- Localisation efforts with relevant agencies
- Recruitment of IBTE graduates
- Streamlining foreign labour application process

## Capital

- Co-Matching schemes
- Contract Farming Program for Youth

## Entrepreneur

- Local Market Facilitation
- Export Market Facilitation
- Corporate governance

## Technology

- Solar technology
- Semi-conventional technology
- Drone technology

# SPIN OFF OPPORTUNITIES IN AGRICULTURE AND AGRIFOOD SECTOR

- Production/Supply of Seeds and Seedlings
- Marketing Services
- Transportation Services
- Fertilizer Supplier
- Machinery Supplier
- Slaughter House
- Waste Disposal
- Hatchery



# THANK YOU

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Website : <http://www.agriculture.gov.bn>