

# INTERNATIONAL WORKSHOP ON SUPPLY AND USE TABLES

## COMPILATION OF MALAYSIA SUPPLY AND USE TABLES

BEIJING, CHINA  
11-13 SEPTEMBER 2018



[www.dosm.gov.my](http://www.dosm.gov.my)



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# OUTLINES



## Introduction



## Malaysia : Supply and Use Table



## Valuation



## Challenges and Moving Forward



# OUTLINES



## Introduction



## Malaysia : Supply and Use Table



## Valuation



## Moving Forward



# The Insights of DOSM

Established in 1949

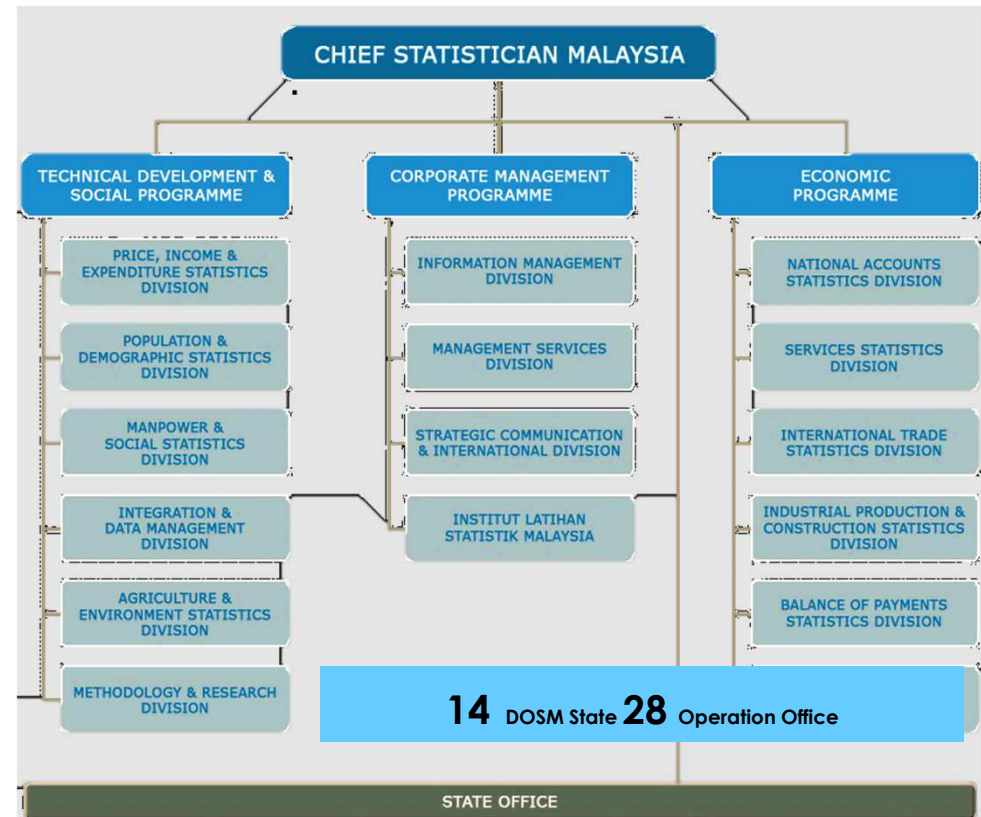
The main government agency entrusted with the responsible for collecting, interpreting and distributing timely and up to date statistics

## VISION

“To Become A Leading Statistical Organisation Internationally by 2020”

## MISSION

“Producer of National Statistics of Integrity and Reliability”



# Amongst DOSM Products

Portal : [www.dosm.gov.my](http://www.dosm.gov.my)

SOCIAL & DEMOGRAPH	ECONOMY
Household Income Survey Report and Basic Amenities	Gross Domestic Product
Household Expenditure Survey Report	External Trade Statistics
Population Projections	Consumer Price Index
Labor Force Survey Report	Index of Industrial Production
Vital Statistics	Statistics of International Trade in Services
ICT Use and Access by Individuals and Households Survey Report	Domestic Tourism Survey
Salaries & Wages Survey Report	Balance of Payments
Compendium of Environmental Statistics	Economic Census
Social Statistics Bulletin	Rubber Statistics
Statistics on Causes of Death	Malaysia Economic Indicator – Leading, Coincident and Lagging Indices
	<b>Malaysia Input-Output Tables</b>



- ❖ State Socioeconomic Report
- ❖ My Local Stats



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# International Involvement

## STUDY VISIT/ COURTESY CALL

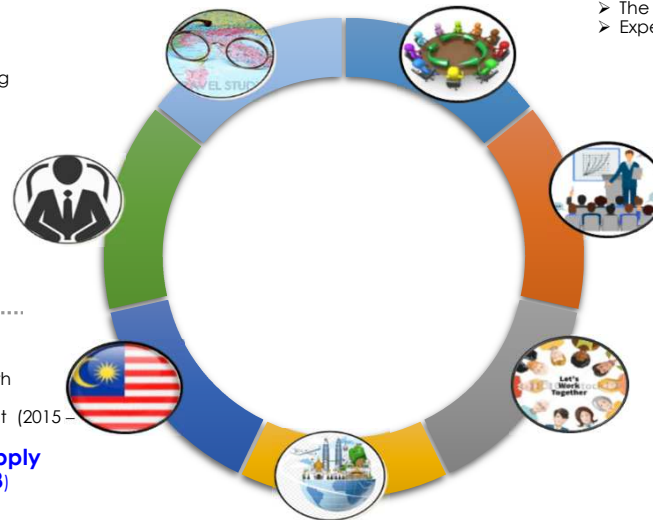
- Pakistan, Bangladesh, Mozambique, Korea, Netherland, Nepal, Ethiopia, Afghanistan, Nigeria, Madagascar, China, Cambodia, Lao PDR, Vietnam, Myanmar
- UNFPA, UNCEF, World Bank, ADB, SESRIC,

## CHAIR MEETING

- WGDSA (2011-2017), IMTS (2016-2017), SITS (2016), WGIS
- Steering Committee Meeting of The EU-ASEAN Capacity Project For Monitoring Integration Progress And Statistics (PSC) (2015)
- Working Group on Statistical Database (2017 – 2018)
- Task Force on Asia-Pacific Economic Statistics Week (APES) – (2017-2018)
- 8th ASEAN Community Statistical System (ACSS)-Sub-Committee on Planning and Coordination (SCPC) – 2014-2015
- Mesyuarat Brunei Darussalam- Indonesia-Malaysia- Philippines East ASEAN Growth Area (BIMP - EAGA), 2017

## PILOT COUNTRY

- Pilot country for the Development Account on Green Economy/Green Growth Indicators project ( 2014-2015)
- Pilot country for System of Environmental-Economic Accounting (SEEA) project (2015 – 2017)
- **ADB Project : R-CDTA 8838 Updating and Constructing the Supply and Use Tables (SUT) for Selected Member Economies (2018)**
- Projek EU-ASEAN Capacity Building Project For Monitoring Integration Progress (2014-2018);
- **Trade in Value Added (APEC TiVA) Under Global Value Chains (GVCs) And Its Action Plan;**
- Business Register for Small, Medium Enterprise of Laos, Sri Lanka, Cambodia and Vietnam.



## HOST COUNTRY

- 5th ASEAN Community Statistical System (ACSS) – 2015
- Meeting of the ASEAN Community Statistical System Sub-Committee on Planning and Coordination (ACSS-SCPC) & Project Steering Committee (PSC-5) and Workshop Monitoring & Evaluation Framework, 2017

➢ 62<sup>nd</sup> ISI World Statistics Congress 2019

## EXPERT GROUP

- Improving Rural Statistics - Rural Definition & Indicator
- Refugees and Internally Displaced Persons Statistics
- Environmental-Economic Accounting (UNCEEA)
- High-level Group for Partnership, Coordination and Capacity-Building for statistics for the 2030 Agenda for Sustainable Development (HLG-PCCB)
- The Guidelines And Principles For The Development Of Disability
- Experts on Business Registers

## TRAINER/EXPERT

- Sustainable Development Statistics
- Tourism Satellite Account
- International Trade Statistics
- Education Statistics
- International Merchandise Trade Statistics (IMTS)
- Labour Statistics

## WORKING/ CITY GROUP / STEERING GROUP

- ASEAN: WGDSA, WGSITS, WGITMS, WGFDI
- Friends of The Chair Group on the Fundamental Principles Of Official Statistics (FOC-FPOS)
- The Network for the Coordination of Statistical Training in Asia and the Pacific
- Praia Group – Governance Statistics
- Washington Group – Disability
- London Group – Steering Group for the Regional Programme on Economic Statistics (SGRPES) – Chair
- Regional Steering Group on Population and Social Statistics in Asia and the Pacific
- Regional Steering Group On Civil Registration And Vital Statistics (CRVS)



# OUTLINES



Introduction



**Malaysia: Supply and Use Table**



Valuation



Challenges and Moving Forward



# Why SUT & I-O?



- The SUT and IO tables offer the **most detailed potrait of an economy**.
- The tables provide a detailed analysis on the **process of production** and the use of **goods and services** (products) and the **income generated** in that production.
- It also illustrates the **relationship between consumers and producers** and **interdependence between industries**.
- I-O Tables are derived from SUT.

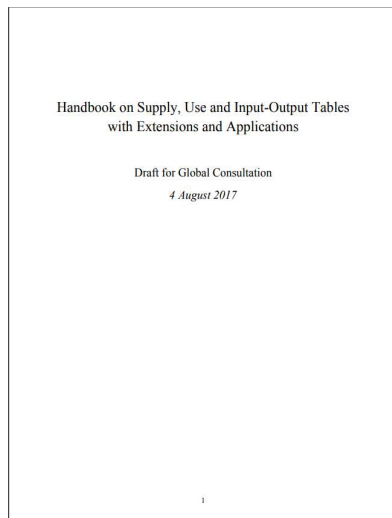




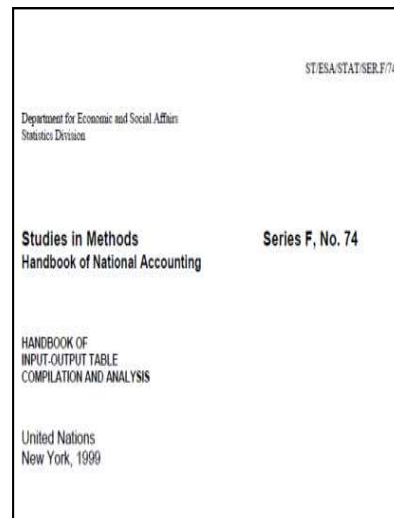
# Malaysia I-O Tables



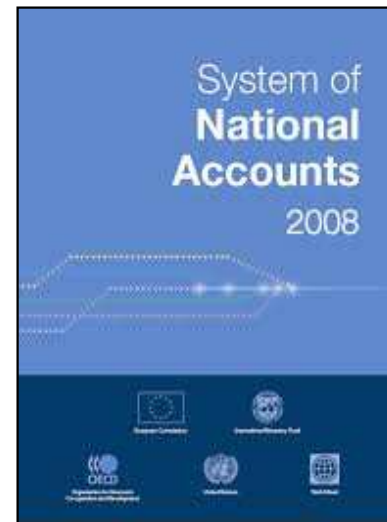
# Manuals



**Handbook on Supply,  
Use and Input-Output  
Tables with  
Extensions and  
Applications, 2017**



**Handbook on Input  
Output Table  
Compilation and  
Analysis, United  
Nations, New York,  
1999**



**System of National  
Accounts (SNA)  
2008**



**Eurostat Manual  
of Supply, Use  
and Input-  
Output Tables,  
2008 Edition**

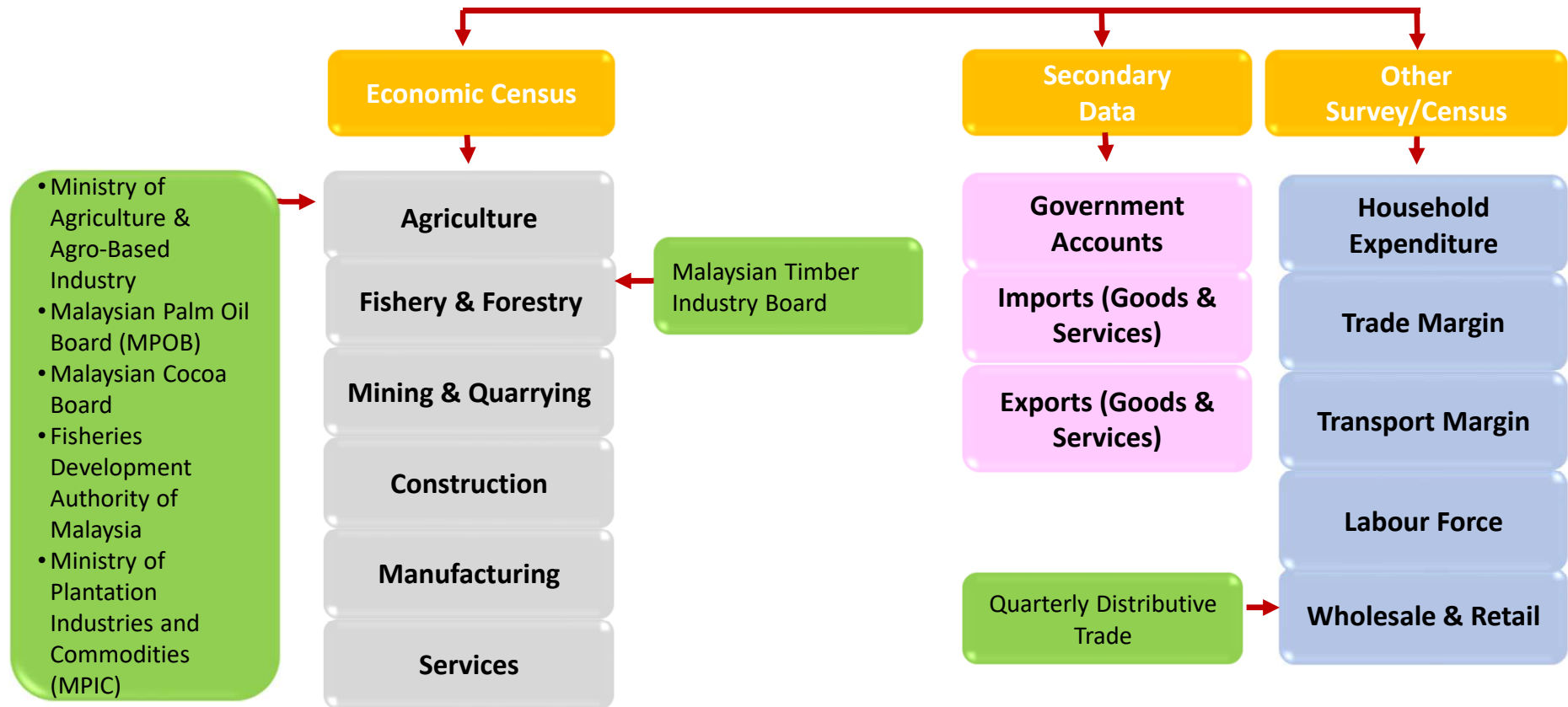


# Background on I-O Table

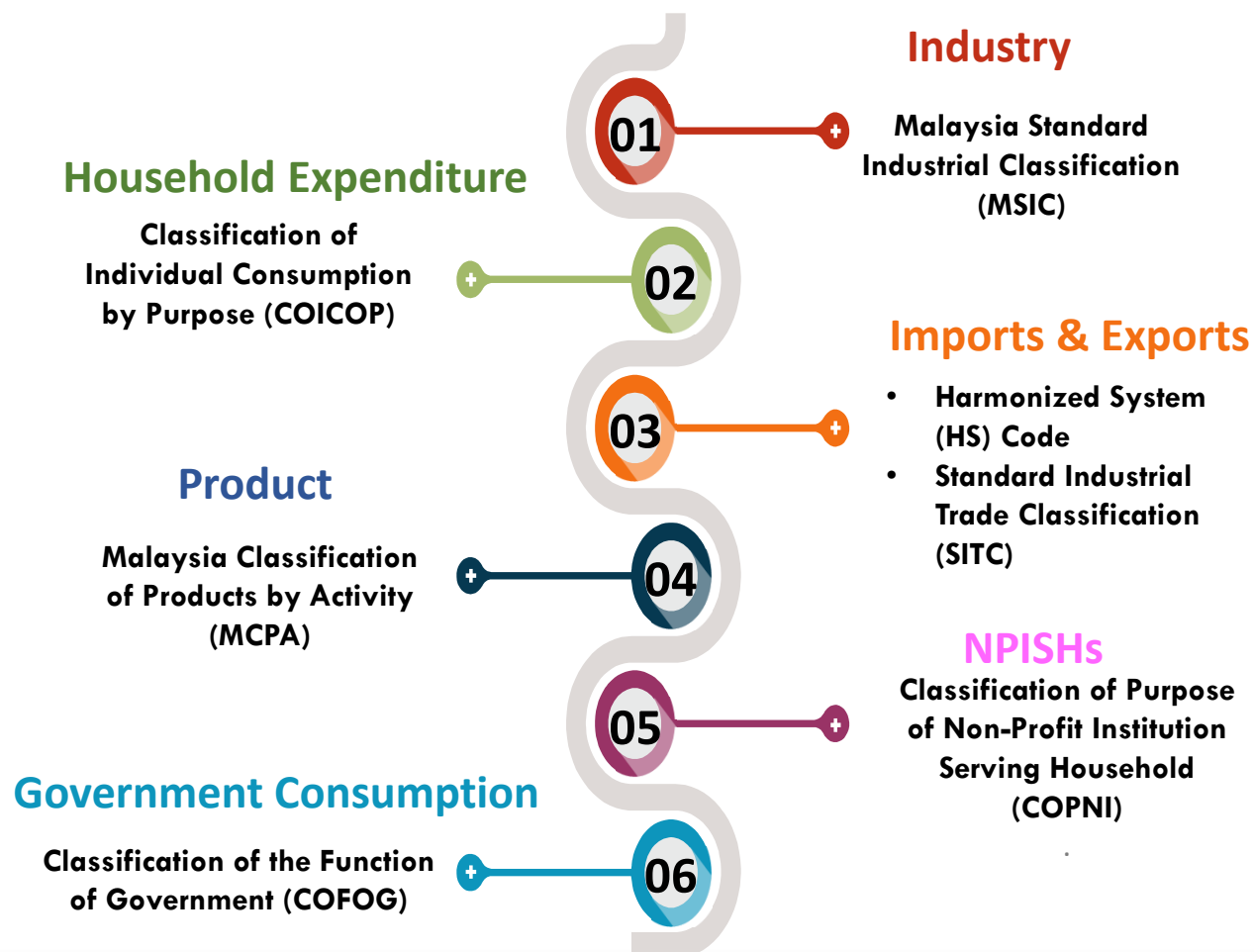
Reference Year	Table Size	Manual	
		System of National Accounts (SNA)	Guideline
1978	60 sector	1968	<ol style="list-style-type: none"> <li>Handbook of Input-Output Table : Compilation and Analysis, United Nations, New York</li> <li>Eurostat Manual of Supply, Use and Input- Output Tables</li> </ol>
1983, 1987	60 sector	1968	
1991	92 sector	1968	
2000	94 sector	1968 & 1993	
2005	120 sector	1993	
2010	124 sector	2008	



# Data Sources



# Classifications



# Main Users



Stakeholders



International users



Public



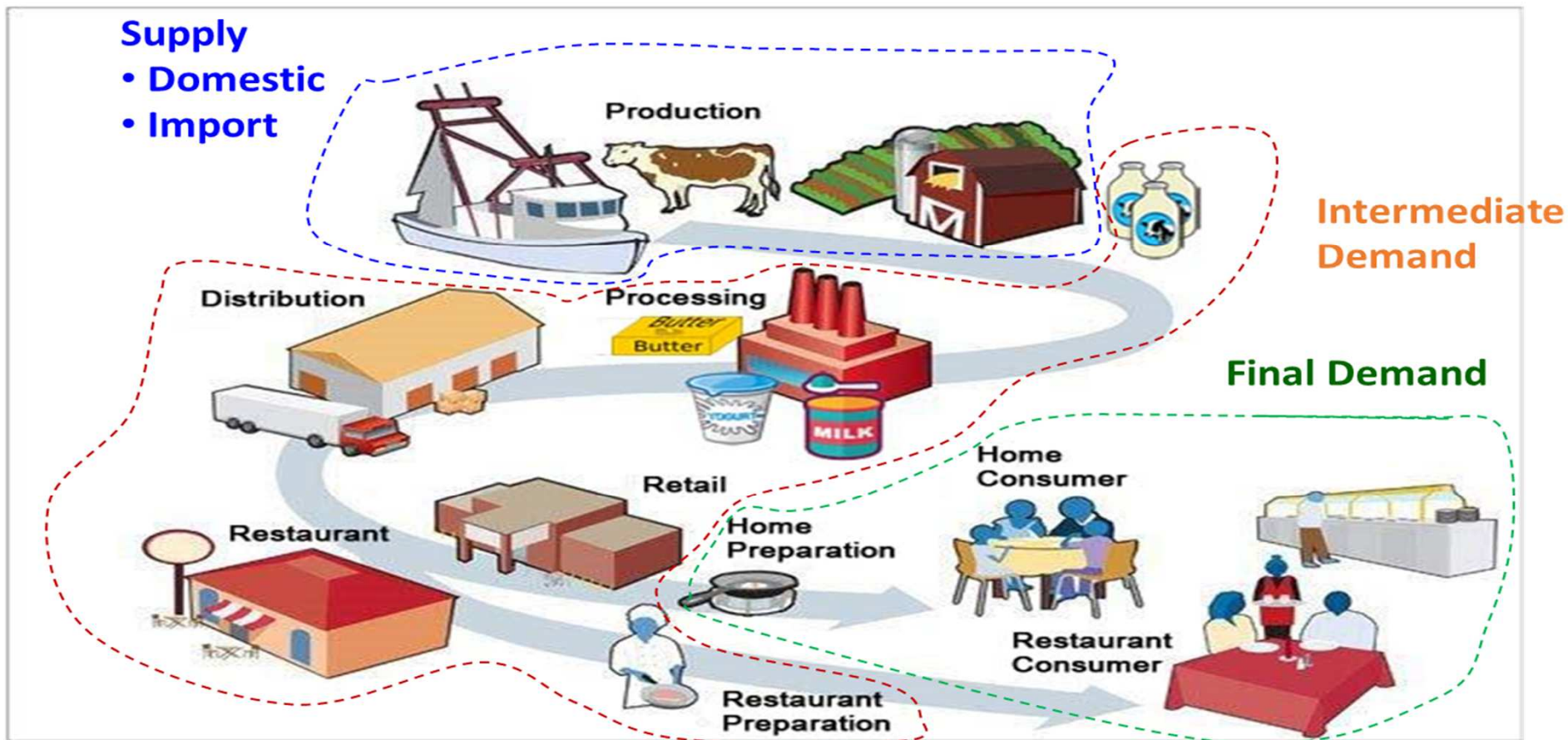
All Government Ministries /  
Agencies



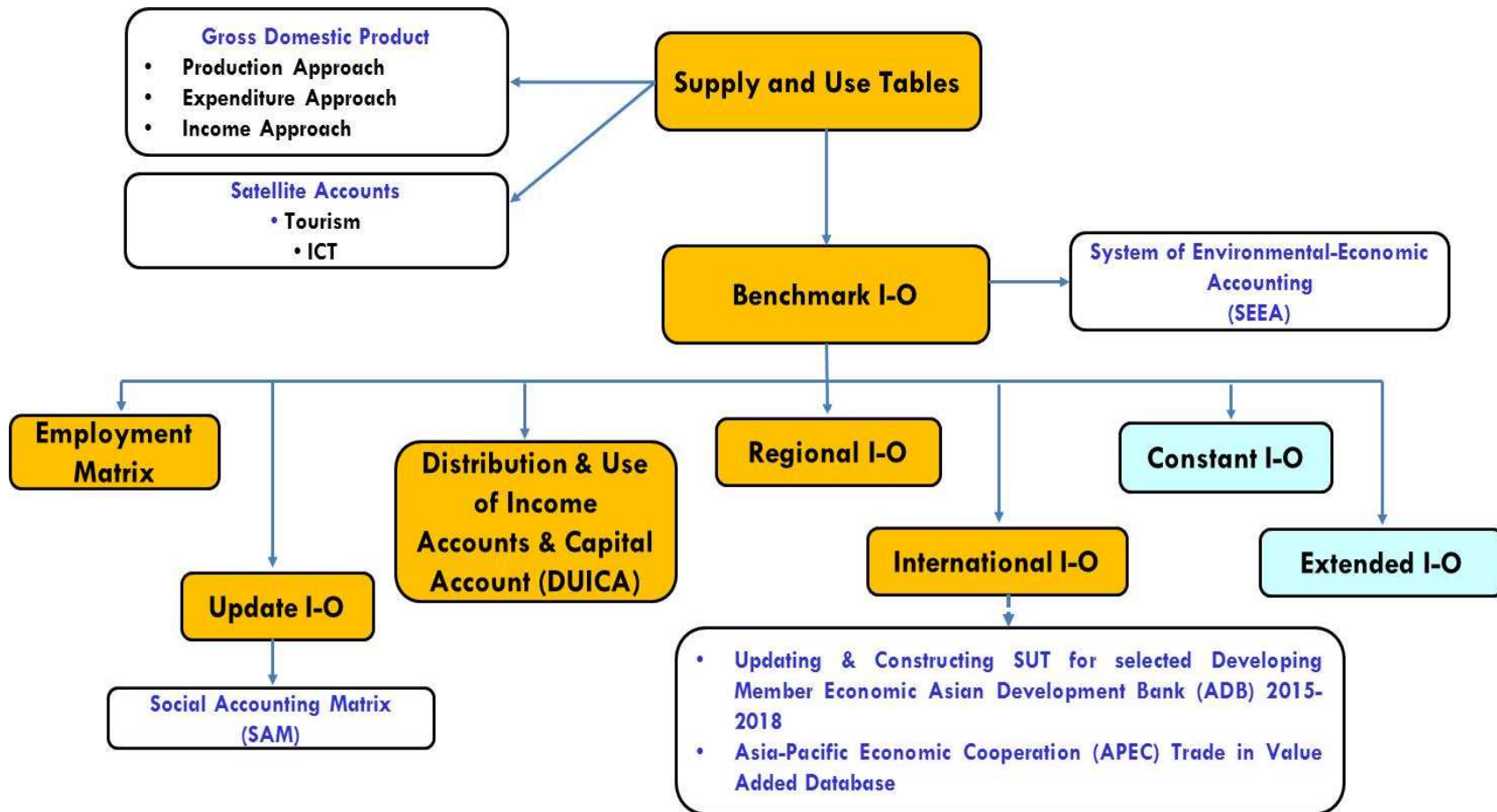
- ❖ Researchers
- ❖ Universities
- ❖ Embassy
- ❖ Private sector



# Relationship between Supply and Use

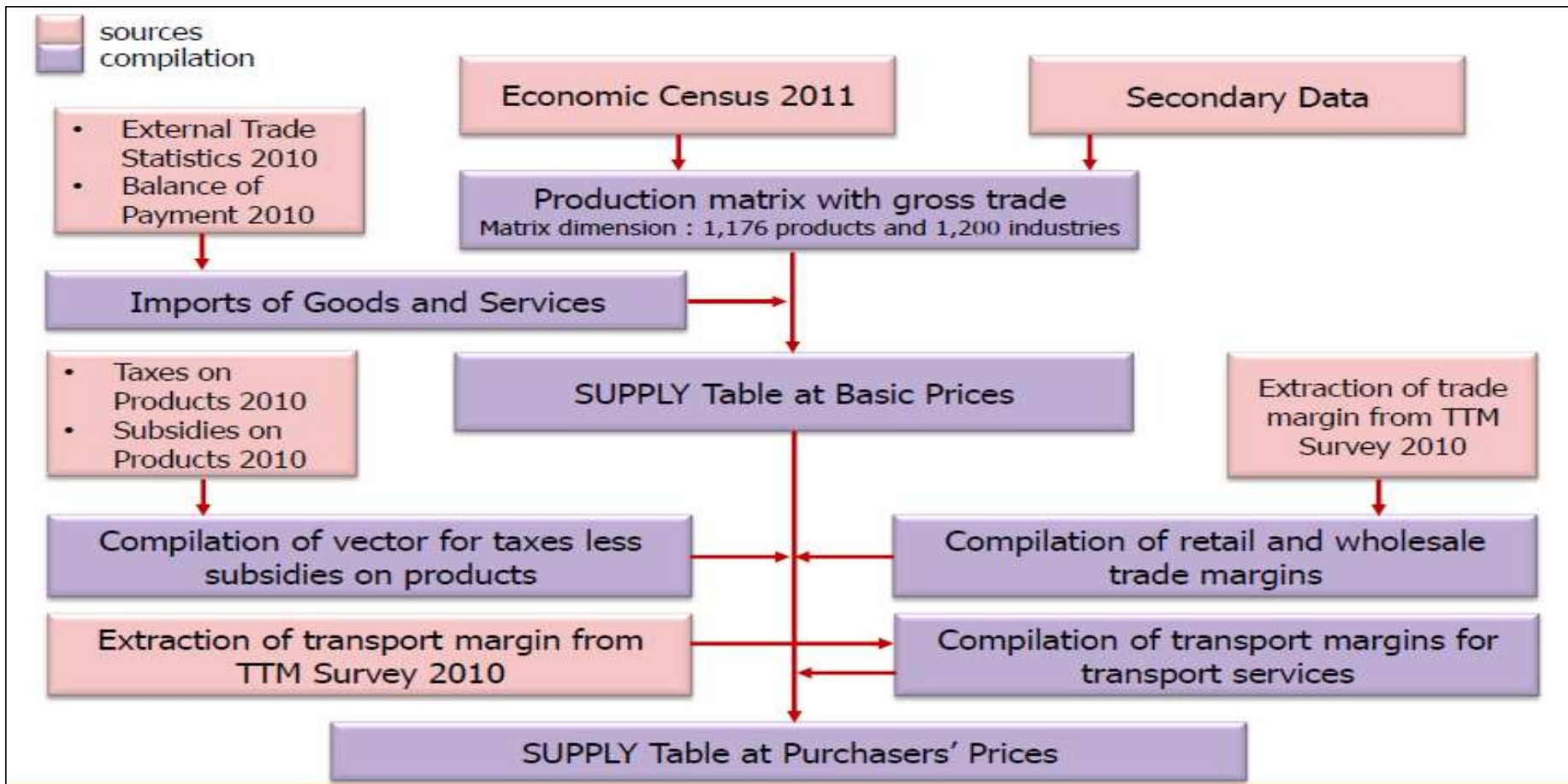


# Importance of SUT and I-O

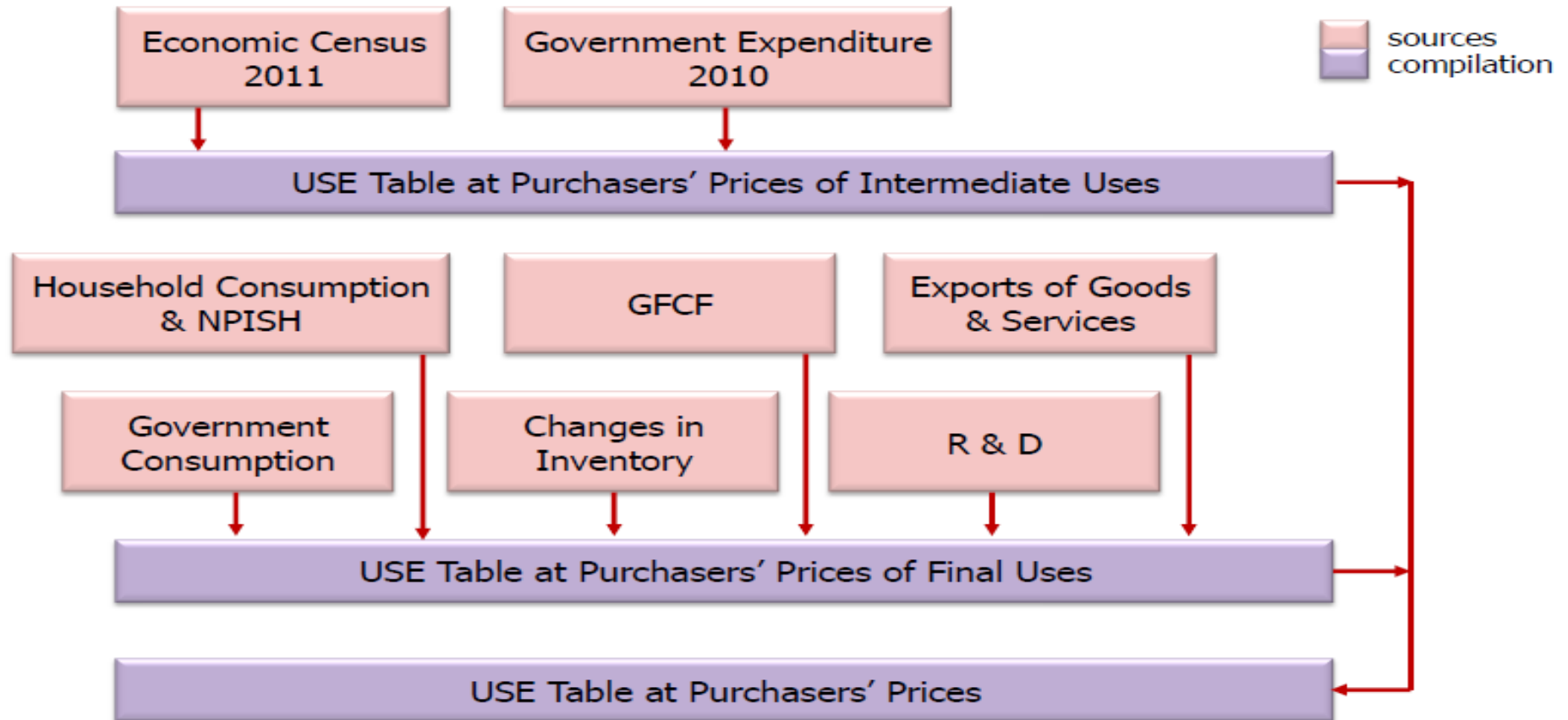




# Flow of Compilation For Supply Table 2010



# Flow of Compilation For Use Table 2010



# Supply Table and Make Matrix

# Framework of Supply & Use Tables

Supply Table

INDUSTRY		Import	Trade & Transport Margin	Taxes less subsidies on product	TOTAL SUPPLY
PRODUCT					
	TOTAL OUTPUT				

Use Table

INDUSTRY		FINAL DEMAND (at purchasers, prices)				
		Total Intermediate Demand	Private Consumption	Government Consumption	Gross Fixed Capital Formation	Changes in Inventories
PRODUCT	INTERMEDIATE DEMAND at purchasers' prices					
	Total intermediate input Compensation of Employees Taxes less Subsidies on Production Gross Operating Surplus TOTAL OUTPUT					

# Relationship SUT & I-O

## SUT

Supply Table

		<b>ACTIVITY</b> Y			
<b>C O M M O D I T Y</b>	DOMESTIC SUPPLY at basic prices	Import	Trade & Transport Margin	Taxes less subsidies on product	<b>T O T A L S U P P L Y</b>
	TOTAL OUTPUT				



## I-O

Make Matrix

Activity	Commodity											
	Agriculture, Fishery & Forestry	Mining & Quarrying	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail trade	Hotel & Restaurants	Transport & Communication	Finance & Insurance	Real Estate & Ownership of dwellings	Business & Private services	Government services
Activity	1	2	3	4	5	6	7	8	9	10	11	12
Agriculture, Fishery & Forestry	1	<b>DOMESTIC OUTPUT at basic prices</b>										
Mining & Quarrying	2											
Manufacturing	3											
Electricity, Gas & Water	4											
Construction	5											
Wholesale & Retail trade	6											
Hotel & Restaurants	7											
Transport & Communication	8											
Finance & Insurance	9											
Real Estate & Ownership of dwellings	10											
Business & Private services	11											
Government services	12											
<b>TOTAL OUTPUT AT BASIC PRICES</b>												

**Table 2: Make Matrix of Domestic Production at Basic Prices, Activity by Commodity, 2010**

Commodity \ Activity		Agriculture, Forestry & Fishing	Mining & Quarrying	Manufacturing	Utilities	Construction	Services	Total Industry Output
		1	2	3	4	5	6	13
Agriculture, Forestry & Fishing	1	123,865	-	355	-	4	2,427	126,651
Mining & Quarrying	2	-	107,183	283	-	7	76	107,549
Manufacturing	3	-	-	900,396	7	396	4,335	905,133
Utilities	4	-	-	-	44,446	-	2,873	47,319
Construction	5	-	-	-	-	90,400	962	91,362
Wholesale & Retail Trade	6	-	-	-	-	-	199,972	199,972
Accommodation and Food & Beverage	7	-	-	16	-	0	47,664	47,681
Transportation & Communication	8	-	-	48	-	38	164,964	165,051
Finance & Insurance	9	-	-	-	-	-	145,528	145,528
Real Estate & Ownership of Dwellings	10	-	-	-	-	-	38,145	38,145
Business & Private Services	11	-	-	1	-	1	64,200	64,201
Government Services	12	-	-	8	-	-	135,571	135,579
<b>TOTAL</b>		<b>123,865</b>	<b>107,183</b>	<b>901,108</b>	<b>44,452</b>	<b>90,846</b>	<b>806,717</b>	<b>2,074,171</b>

# Use Table & Absorption Matrix

# Relationship SUT & I-O

## SUT

Use Table

## I-O

Absorption Matrix

COMMODITY	ACTIVITY	FINAL DEMAND (at purchasers' prices)					TOTAL DEMAND
		Total Intermediate Demand	Private Consumption	Government Consumption	Gross Fixed Capital Formation	Changes in Inventories	
	INTERMEDIATE DEMAND at purchasers' prices						
	Total intermediate input						
	Compensation of Employees						
	Taxes less Subsidies on Production						
	Gross Operating Surplus						
	TOTAL OUTPUT						



Absorption Matrix at basic prices	Commodity	Activity	INTERMEDIATE USES												TOTAL INTERMEDIATE USES	FINAL USES					TOTAL FINAL USES	TOTAL USE AT PURCHASERS' PRICES				
			1	2	3	4	5	6	7	8	9	10	11	12		Private consumption	Government consumption	R & D	Gross fixed capital formation	Changes in inventory			Exports			
	Agriculture, Fishery & Forestry	1																								
	Mining & Quarrying	2																								
	Manufacturing	3																								
	Electricity, Gas & Water	4																								
	Construction	5																								
	Wholesale & Retail trade	6																								
	Hotel & Restaurants	7																								
	Transport & Communication	8																								
	Finance & Insurance	9																								
	Real Estate & Ownership of dwellings	10																								
	Business & Private services	11																								
	Government services	12																								
	<b>TOTAL INTERMEDIATE INPUT</b>																									
	<b>PRIMARY INPUT</b>																									
	Other Net Taxes on Production																									
	Value Added																									
	- Compensation of Employee																									
	- Operating Surplus																									
	<b>TOTAL OUTPUT AT BASIC PRICES</b>																									





# Absorption Matrix

		Industry	INTERMEDIATE DEMAND												TOTAL INTERMEDIATE DEMAND	FINAL DEMAND					TOTAL FINAL DEMAND	TOTAL DEMAND
			1	2	3	4	5	6	7	8	9	10	11	12		Private consumption	Government consumption	Gross Fixed Capital Formation	Changes in Inventory	Exports		
The Use Table shows the use of goods and services by product and by type of use for intermediate and final demand		Product	Agriculture, Fishery & Forestry	Mining & Quarrying	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail trade	Hotel & Restaurants	Transport & Communication	Finance & Insurance	Real Estate & Ownership of Dwellings	Business & Private services	Government services								
INTERMEDIATE INPUT	Agriculture, Fishery & Forestry	1	<p><b>Intermediate Input:</b> Shows the cost structures of the industries. The supply of output from one sector to another for intermediate use in the process of production by industries.</p> <p><b>Intermediate Demand:</b> Shows the uses of goods and services.</p>												<p><b>Final Uses</b> refers to sales by each sector to final markets for their production, such as private consumption, government consumption, export, etc.</p>							
	Mining & Quarrying	2																				
	Manufacturing	3																				
	Electricity, Gas & Water	4																				
	Construction	5																				
	Wholesale & Retail trade	6																				
	Hotel & Restaurants	7																				
	Transport & Communication	8																				
	Finance & Insurance	9																				
	Real Estate & Ownership of Dwellings	10																				
	Business & Private services	11																				
	Government services	12																				
<b>TOTAL INTERMEDIATE INPUT</b>																						
PRIMARY INPUT	Imported Commodities		<p><b>Primary Input</b> shows the account for the non-industrial inputs to production.</p>																			
	Taxes on Products																					
	Subsidies on Products																					
	Value Added																					
	- Compensation of Employee																					
	- Operating Surplus																					
<b>TOTAL OUTPUT</b>																						



**Table 3 : Absorption Matrix of Domestic Production at Basic Prices, Commodity by Activity, 2010**

Commodity \ Activity	Agriculture, Forestry & Fishing	Mining & Quarrying	Manufacturing	Utilities	Construction	Services	Total Intermediate Demand	Private Consumption	Government Consumption	Gross Fixed Capital Formation	Changes in Inventories	Total Domestic Demand	Total Exports FOB	Total Final Demand	Total Demand	
	1	2	3	4	5	6	13	14	15	16	17	18	19	20	21	
Agriculture, Forestry & Fishing	1	8,200	-	74,101	-	-	5,489	<b>87,789</b>	19,645	-	3,427	430	23,502	12,574	36,076	<b>123,865</b>
Mining & Quarrying	2	41	950	60,450	587	2,224	0	<b>64,252</b>	136	-	-	(400)	(264)	43,195	42,932	<b>107,183</b>
Manufacturing	3	14,508	5,375	184,256	3,696	28,717	75,096	<b>311,648</b>	84,300	-	20,401	7,675	112,376	477,084	589,460	<b>901,108</b>
Utilities	4	967	109	13,420	6,634	365	11,804	<b>33,298</b>	10,798	-	228	0	11,025	128	11,154	<b>44,452</b>
Construction	5	825	822	3,767	14	6,530	8,071	<b>20,029</b>	6,835	-	58,661	-	65,496	5,321	70,817	<b>90,846</b>
Services	6	13,703	4,889	101,749	5,157	9,607	210,109	<b>345,213</b>	234,858	101,380	16,879	2,155	355,272	106,231	461,503	<b>806,717</b>
<b>TOTAL INTERMEDIATE INPUT</b>	<b>13</b>	<b>38,244</b>	<b>12,144</b>	<b>437,742</b>	<b>16,088</b>	<b>47,442</b>	<b>310,569</b>	<b>862,229</b>	<b>356,571</b>	<b>101,380</b>	<b>99,597</b>	<b>9,861</b>	<b>567,408</b>	<b>644,534</b>	<b>1,211,941</b>	<b>2,074,171</b>
Direct Purchases Abroad by Residents	14	-	-	-	-	-	-	-	26,733	-	-	-	26,733	-	26,733	<b>26,733</b>
Domestic Purchases by Non-Residents	15	-	-	-	-	-	-	-	(58,350)	-	-	-	(58,350)	58,350	-	<b>-</b>
<b>TOTAL INPUT</b>	<b>16</b>	<b>38,244</b>	<b>12,144</b>	<b>437,742</b>	<b>16,088</b>	<b>47,442</b>	<b>310,569</b>	<b>862,229</b>	<b>324,954</b>	<b>101,380</b>	<b>99,597</b>	<b>9,861</b>	<b>535,791</b>	<b>702,884</b>	<b>1,238,675</b>	<b>2,100,904</b>
Imported Commodities	17	11,448	6,379	280,454	9,699	15,924	79,153	<b>403,056</b>	56,083	5,161	78,064	3,973	143,280	35,658	178,939	<b>581,995</b>
Taxes on Products	18	995	242	5,024	243	377	5,902	<b>12,784</b>	9,407	6	4,923	-	14,337	5,492	19,829	<b>32,613</b>
Subsidies on Products	19	1,075	427	2,968	427	377	3,787	<b>9,061</b>	3,299	-	-	-	3,299	-	3,299	<b>12,360</b>
<b>Gross Value Added</b>	<b>20</b>	<b>77,038</b>	<b>89,211</b>	<b>184,881</b>	<b>21,716</b>	<b>27,996</b>	<b>404,319</b>	<b>805,163</b>	-	-	-	-	-	-	-	<b>-</b>
Compensation of Employee	21	14,139	4,941	52,556	2,032	19,759	166,911	<b>260,337</b>	-	-	-	-	-	-	-	<b>-</b>
Other Net Taxes on Production	22	(170)	2,582	224	5	216	7,068	<b>9,926</b>	-	-	-	-	-	-	-	<b>-</b>
Operating Surplus, Gross	23	63,070	81,688	132,101	19,680	8,021	230,339	<b>534,899</b>	-	-	-	-	-	-	-	<b>-</b>
Consumption of Fixed Capital	24	4,744	8,036	29,130	9,390	2,026	50,919	<b>104,244</b>	-	-	-	-	-	-	-	<b>-</b>
Operating Surplus, Net	25	58,326	73,652	102,972	10,290	5,995	179,421	<b>430,655</b>	-	-	-	-	-	-	-	<b>-</b>
<b>TOTAL OUTPUT</b>	<b>26</b>	<b>126,651</b>	<b>107,549</b>	<b>905,133</b>	<b>47,319</b>	<b>91,362</b>	<b>796,157</b>	<b>2,074,171</b>	<b>387,145</b>	<b>106,547</b>	<b>182,584</b>	<b>13,834</b>	<b>690,109</b>	<b>744,034</b>	<b>1,434,144</b>	<b>2,703,151</b>

# Absorption Matrix



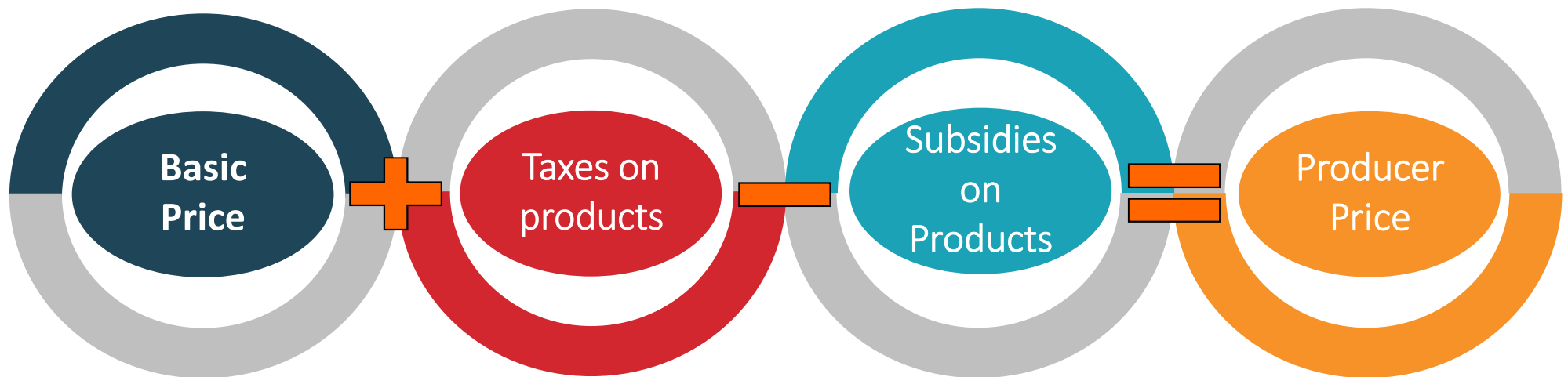
- Also known as intermediate input.
- Records the various type of input used by industries to meet the needs of their production activities.
- Intermediate input is compiled at basic price.



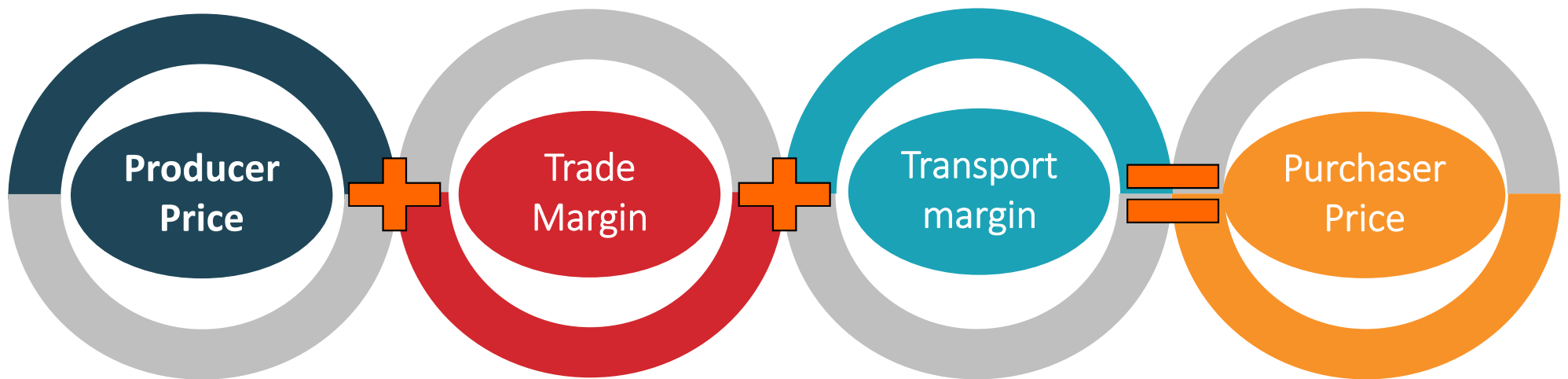
# Valuation of Prices



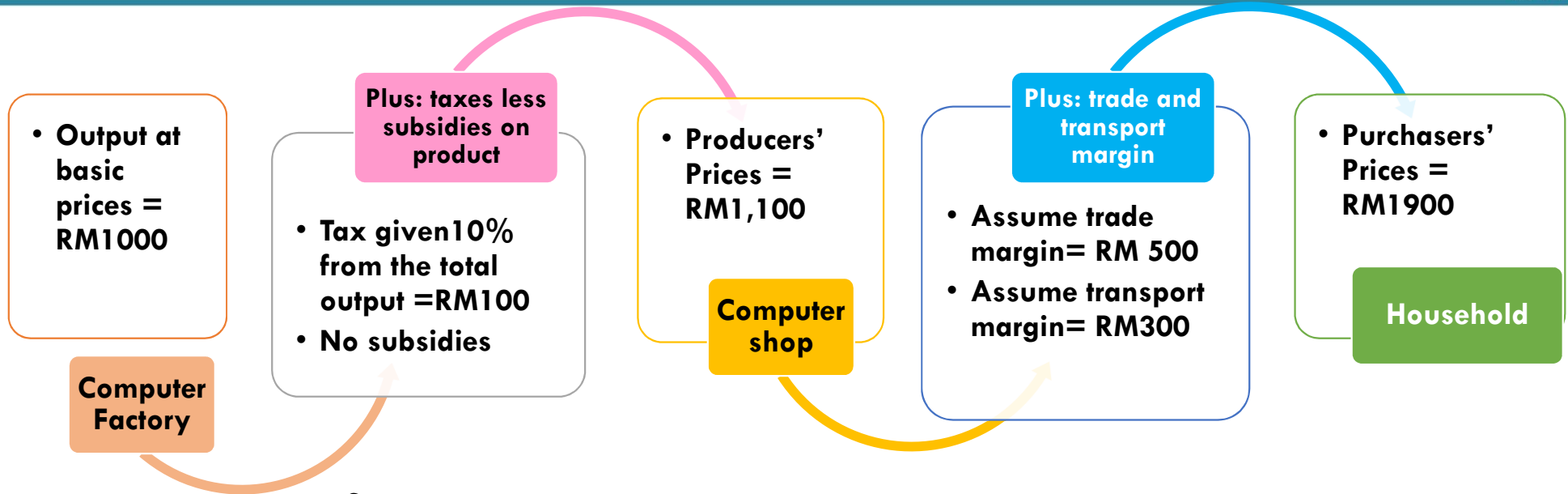
# Valuation of Producer Price



# Valuation of Purchaser Price



# Valuation - Illustration



## Summary:

Output at basic prices	= RM 1,000
<b>Plus:</b> taxes less subsidies on product	= RM 100
<b>Equal:</b> Producers' prices	= RM 1,100
<b>Plus:</b> trade and transport margin	= RM 800
<b>Equal:</b> Purchasers' prices	= RM 1,900



# Challenges

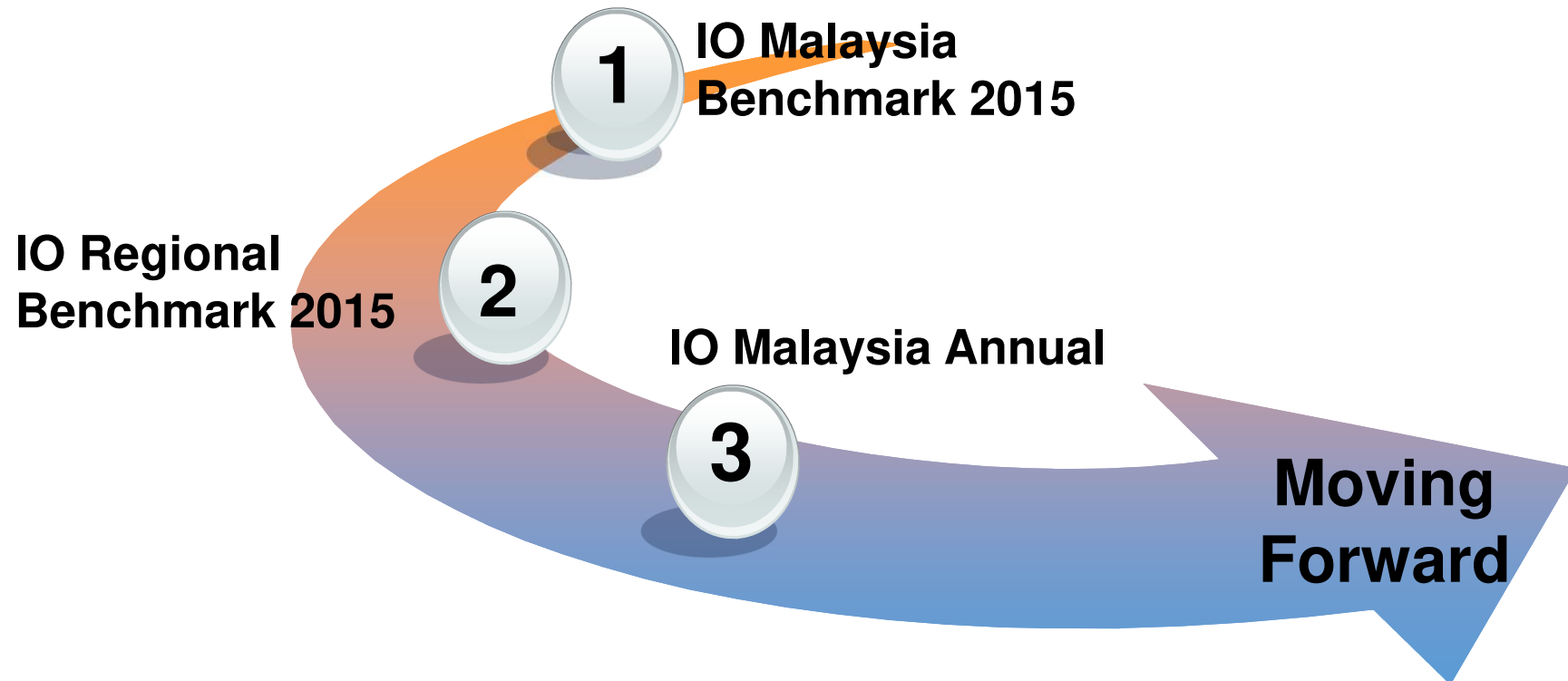


- Compilation of GST (VAT) vector and derivation of GST matrix since there are three rates of GST in Malaysia (zero rated, standard rated & exempted).
- Compilation of trade and transport margin (TTM) vector. At the moment, the compilation of TTM is based on recommendation by Eurostat Manual of Supply, Use and Input-Output Tables (2008).
- Seeks for best practices on TTM and imports matrices. Currently, TTM and imports matrices is derived using use structure.





# Moving Forward



# Towards ...



## Welcoming 62<sup>nd</sup> ISI WORLD STATISTICS CONGRESS 2019



18 - 23 OGOS 2019 | KUALA LUMPUR

<http://www.isi2019.org/>

The screenshot shows the website for the 62nd ISI World Statistics Congress. The header includes navigation links: HOME, ABOUT, SCIENTIFIC PROGRAMME, REGISTRATION, SPONSORSHIP & EXHIBITION, PLAN YOUR TRIP, and a red button for SUBMIT PROPOSAL. The main banner features a cityscape with the Petronas Towers and text: "62<sup>nd</sup> ISI World Statistics Congress", "18-23 Aug 2019", and "Kuala Lumpur Convention Centre". A "Recent Updates" sidebar lists: "Registration Fees" (updated 23 August 2018), "Awards and Funding" (updated 31 July 2018), and "List of Approved Invited Paper Sessions" (updated 16 July 2018). The footer contains social media links for @StatsMalaysia and @Dr\_Uzir, and the website URL www.dosm.gov.my.



# Welcoming 62<sup>nd</sup> ISI WORLD STATISTICS CONGRESS 2019



18 - 23 AUGUST 2019 ■ KUALA LUMPUR

# THANK YOU

Siti Norhudah Nordin  
Senior Assistant Director  
Economic Indicators Division  
Department of Statistics, Malaysia  
Email: [sitiorhudah@stats.gov.my](mailto:sitiorhudah@stats.gov.my)

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