



Digital
Economy
Development
Committee



MYANMAR DIGITAL ECONOMY AND AGRI SECTOR DIGITAL TRANSFORMATION

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Context

1. About Myanmar
2. About Myanmar Digital Economy Development Committee
3. About Myanmar Agriculture Sector Status and Agriculture Sector Digital Transformation



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ABOUT MYANMAR





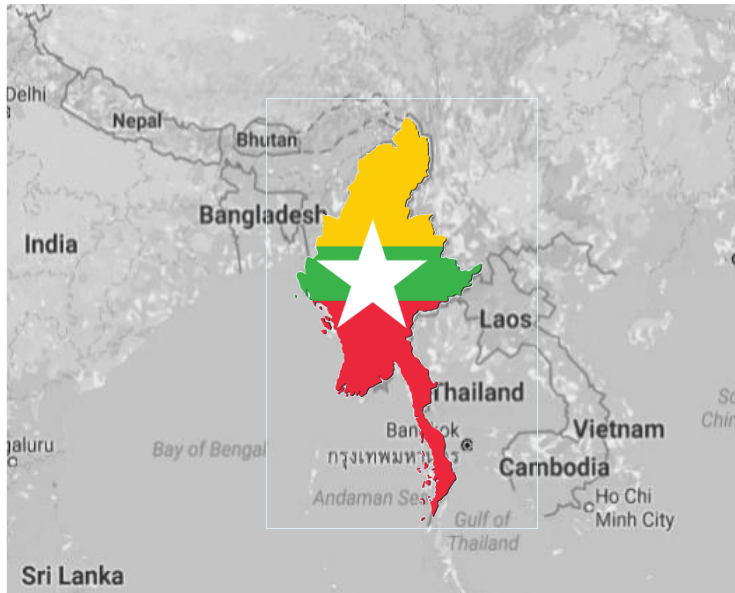
Myanmar At a glance

- **Official name:** The Republic of the Union of Myanmar
Neighboring countries Bangladesh, China, India, Laos & Thailand
Area: 676,578 sqkm - the largest country in mainland SE Asia
Access to sea: Approximately 1930 km of coastline
- **Capital:** Nay Pyi Taw (since its move from Yangon in 2005)
Population: Estimated 53.9 million (July 2017 est.)
Literacy: 75.6% (2016 est.)
- **Ethnic groups:** 135 officially recognized (Bamar 68%; Shan 9%; Karen 7%)
GDP growth in 2017: 7.2%
- **Imports:** fabric, petroleum products, fertilizers, plastics, machinery, cement, construction materials, food products, edible oil
- **Exports:** Natural gas, wood products, pulses and beans, fish, rice, clothing, minerals including jade and gems
- Reference: <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>





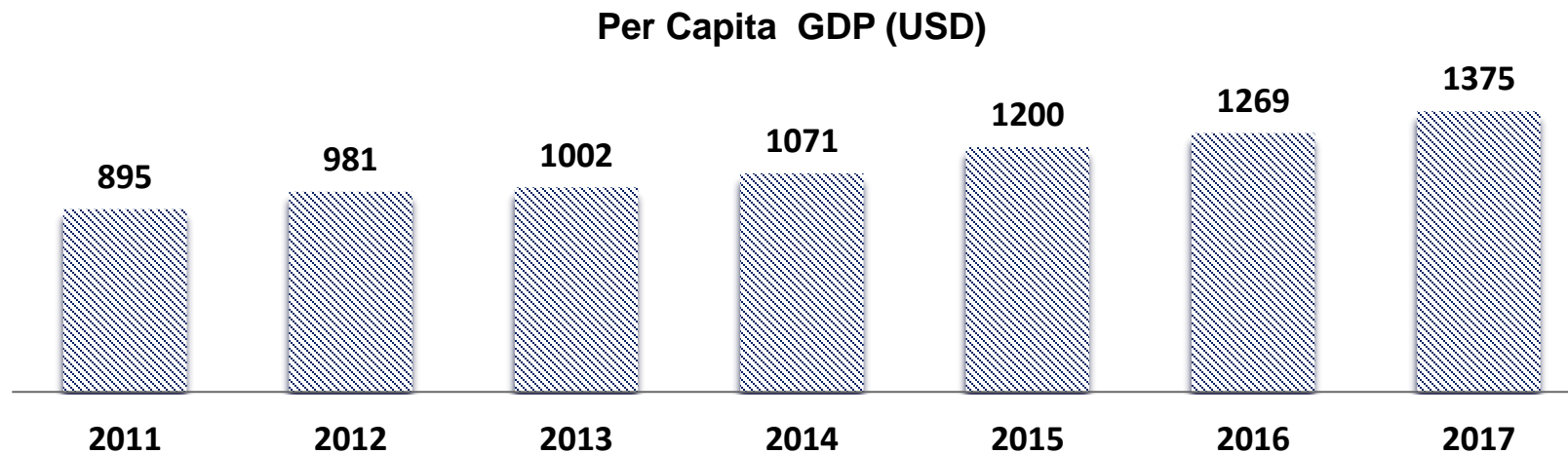
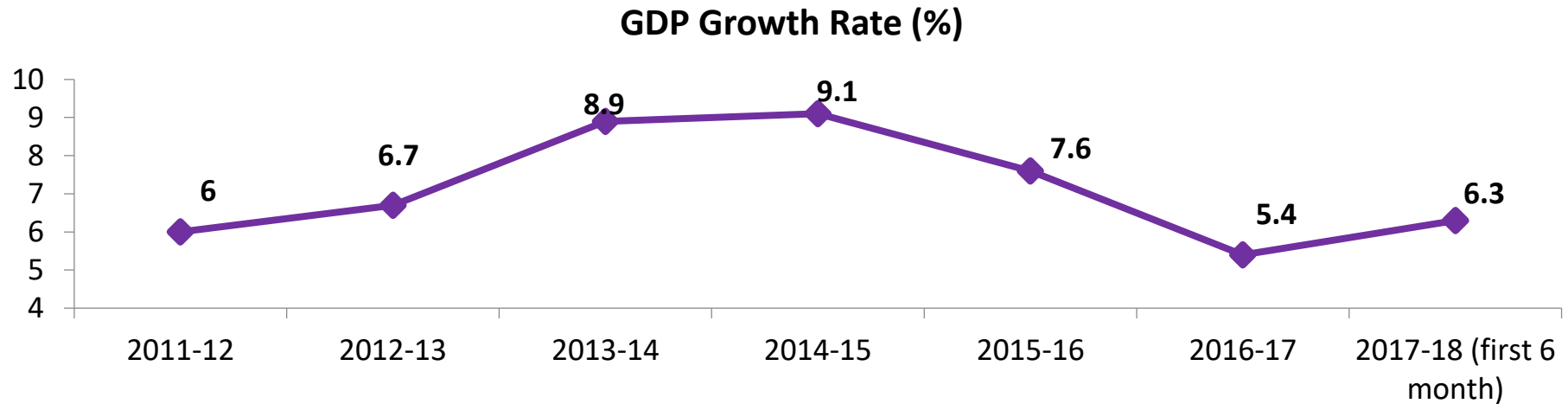
Quick Facts about Myanmar, 2017-18



Population	53.39 Million
Population growth rate	0.89%
Administrative capital and its population	Nay Pyi Taw (1.23 million)
Major cities and their population	Yangon (6 million) Mandalay (1.7 million)
Urban, rural ratio	30:70
Gender ratio (M:F)	48:52
Life expectancy	64.8 years
Working age population (15-64)	33.8 mil (63%)



Myanmar Economy



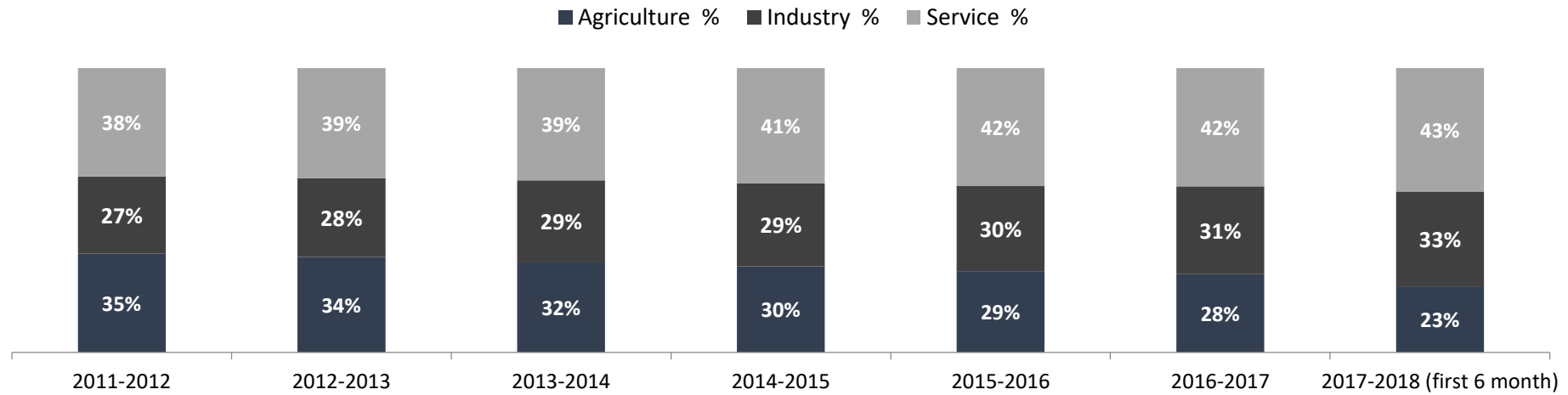
Source: Ministry of Planning and Finance Source: IMF, *Myanmar Article IV Consultation Staff Report 2016*; Table 5, p. 32.,

Note : Projections are based on data provided by the Myanmar authorities and IMF staff preliminary estimates that are subject to change.

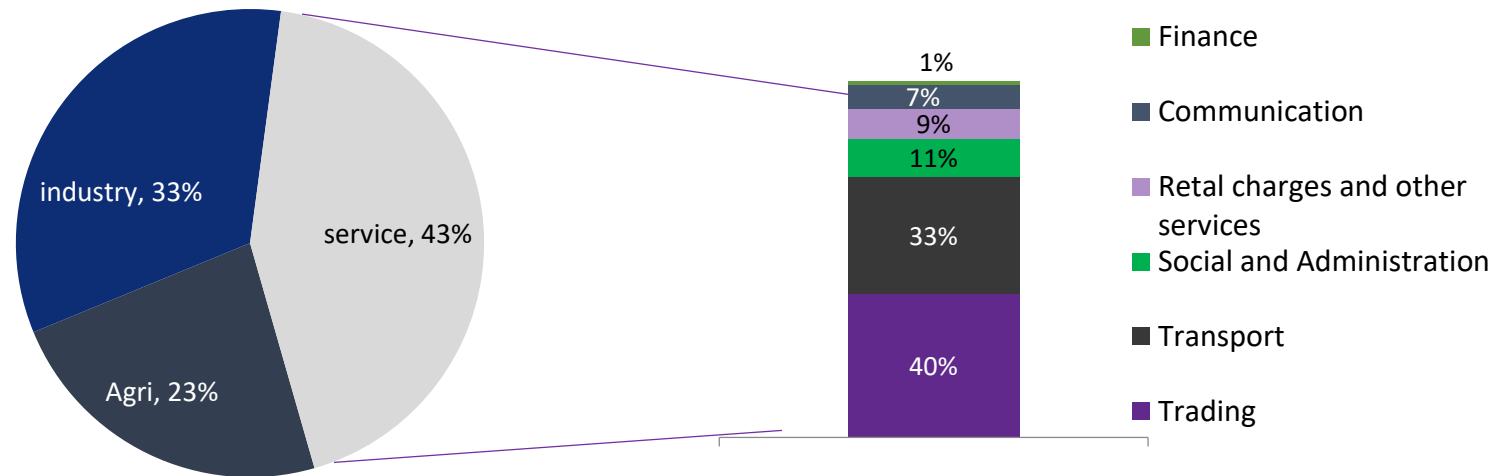


Contribution by Sector to the Economy

Contribution to GDP Growth by sector

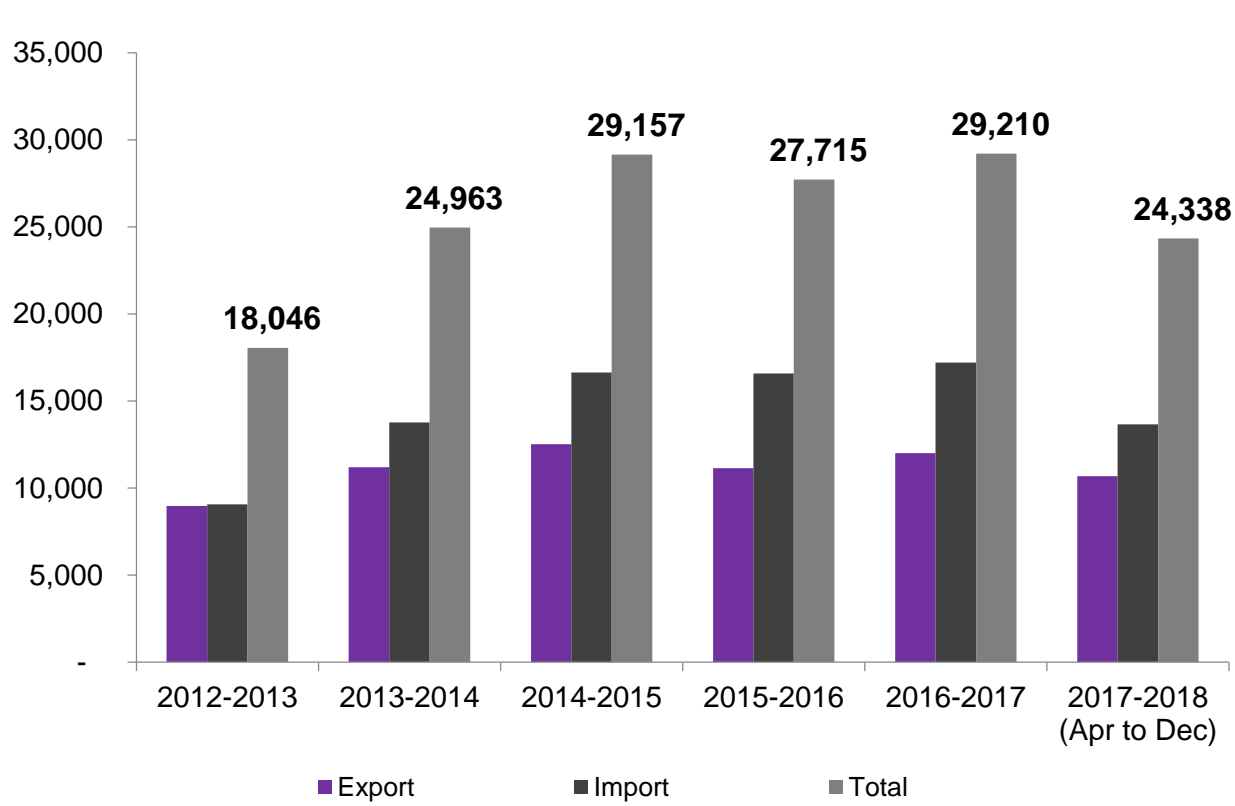


Economy Composition (2017 -2018 fiscal year, first 6 month)





Myanmar Foreign Trade (US\$ mil)



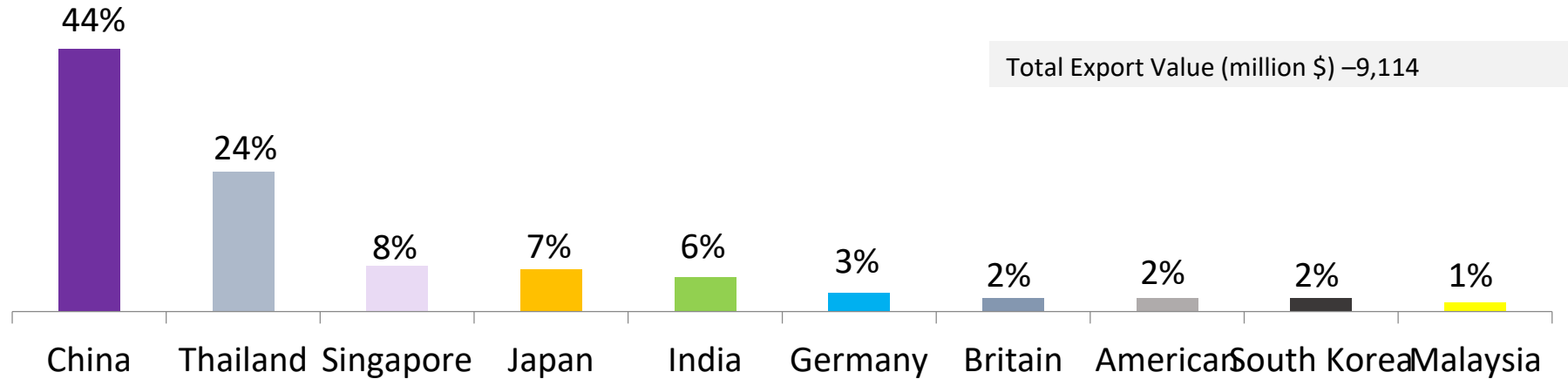
(US\$ million)

Fiscal Year	Export	Import	Volume
2013-14	11,204	13,760	24,963
2014-15	12,524	16,633	29,157
2015-16	11,137	16,578	27,715
2016-17	11,904	17,199	29,103
2017-18 (Apr-Dec)	10,682	13,656	24,338

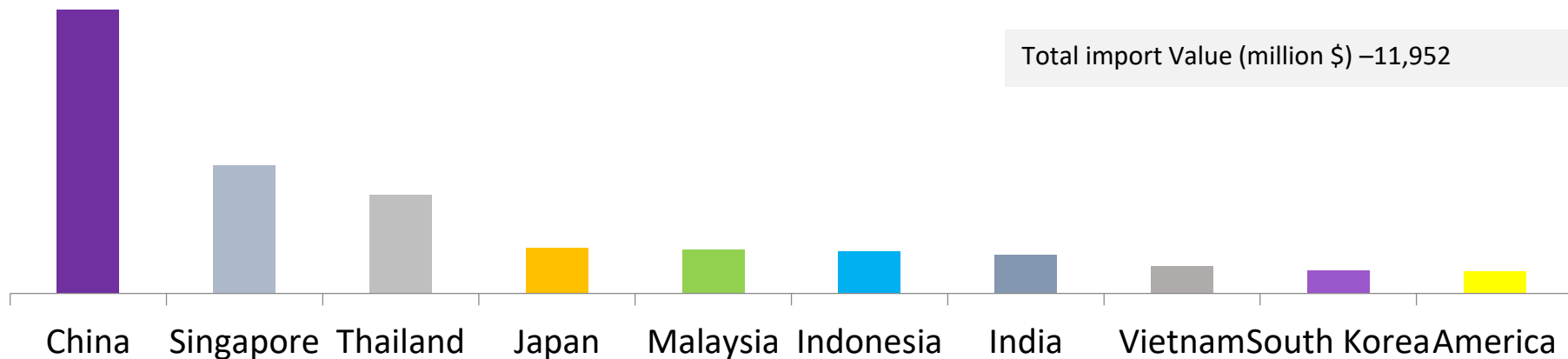


Major Trading Partners

Major Export Partner (2017- 2018 fiscal year – up to December)

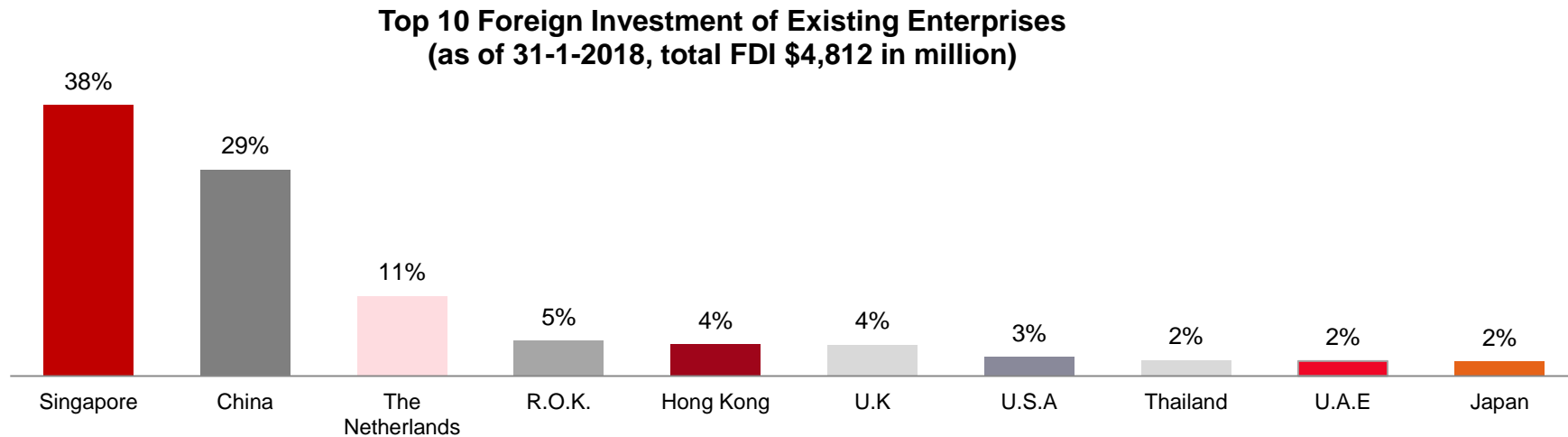
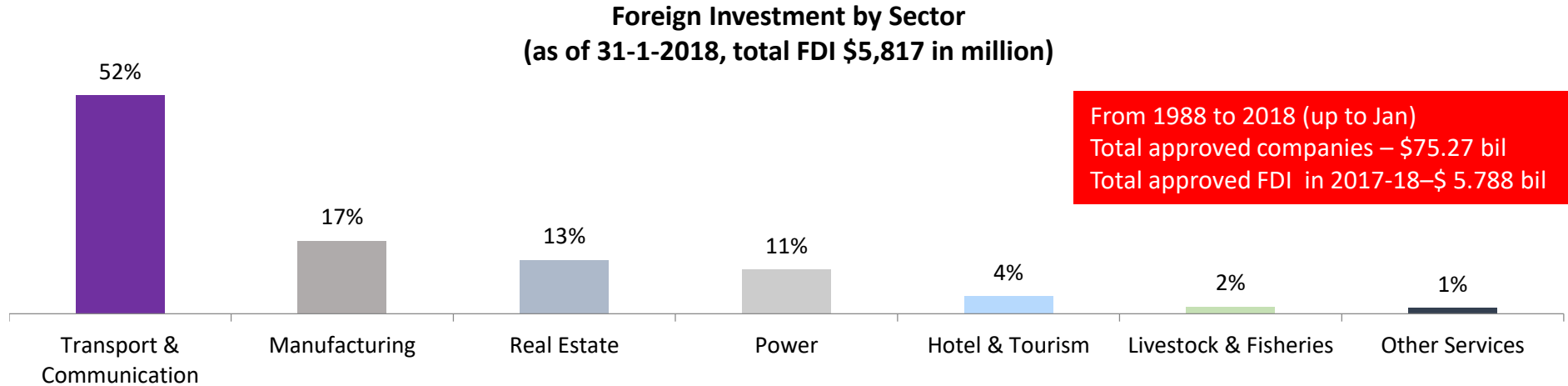


Major Import Partner (2017- 2018 fiscal year – up to December)





Approved FDIs in Myanmar (2017-2018 Fiscal Year)





Foreign Investment by Country of Origin (as of 31/1/2018) (US \$ in million)

Sr. No	Particulars	Permitted Enterprises		
		No.	Approved Amount	%
1	China	226	19,930.08	26.5%
2	Singapore	272	18,656.01	24.8%
3	Thailand	114	11,031.59	14.7%
4	Hong Kong	160	7,776.85	10.3%
5	U.K *	89	4,338.92	5.8%
6	Republic of Korea	150	3,792.87	5.0%
7	Viet Nam	17	2,098.77	2.8%
8	Malaysia	62	1,954.11	2.6%
9	The Netherlands	21	1,528.49	2.0%
10	Japan	101	790.30	1.0%
11	India	26	743.64	1.0%
12	France	20	549.74	0.7%
13	U.S.A	19	376.90	0.5%
14	Indonesia	15	273.58	0.4%
15	Canada	20	203.59	0.3%
16	United Arab Emirates	3	147.69	0.2%
17	Philippine	3	147.17	0.2%
18	Australia	18	145.80	0.2%
19	Brunei Darussalam	23	101.77	0.1%
29	Switzerland	4	30.09	0.04%
	Others	72	656.97	0.9%
	Total	1435	75,274.92	100.0%



FOREIGN INVESTMENT OF PERMITTED ENTERPRISES AS OF (as of 31/1/2018) (By Sector) (USD million)

Sr. No	Particulars	Permitted Enterprises		%
		No.	Approved Amount	
1	Oil and Gas	154	22,410.37	29.77%
2	Power	16	20,957.52	27.84%
3	Manufacturing	849	9,343.94	12.41%
4	Transport & Communication	54	8,850.34	11.76%
5	Real Estate	49	4,848.43	6.44%
6	Hotel and Tourism	71	3,004.45	3.99%
7	Mining	71	2,898.92	3.85%
8	Livestock & Fisheries	47	581.58	0.77%
9	Agriculture	26	383.36	0.51%
10	Industrial Estate	5	237.15	0.32%
11	Construction	2	37.77	0.05%
12	Other Services	91	1,721.11	2.29%
	Total	1,435	75,274.92	100%



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ABOUT MYANMAR DIGITAL ECONOMY DEVELOPMENT COMMITTEE





Policy Framework for Digital Economy



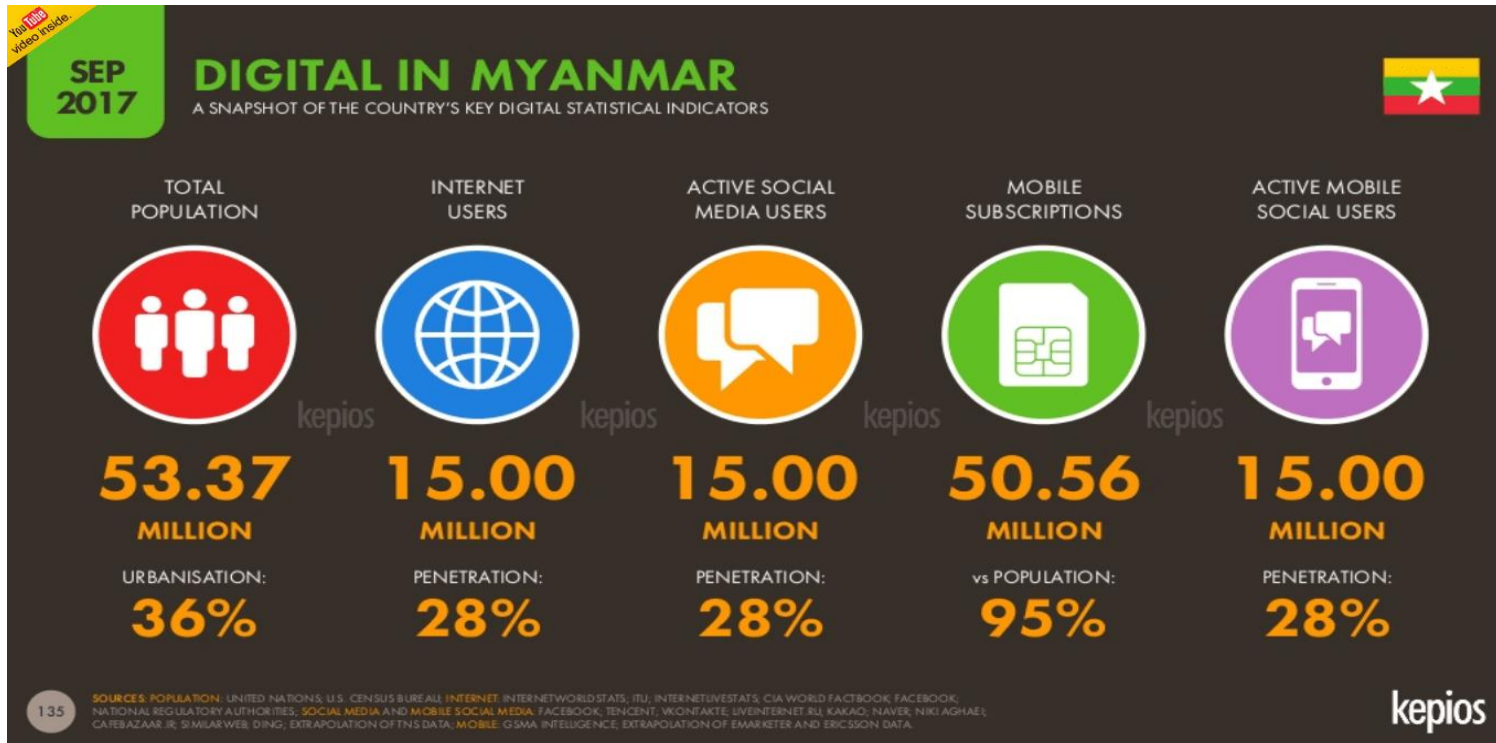
- Established Digital Economy Development Committee (DEDG) in June 2017
 - Vice President, U Henry Van Thio as Patron
 - Union Minister of Planning and Finance as Chairperson
 - Deputy Ministers, Permanent Secretaries and Director Generals
 - ✓ Ministry of Planning and Finance
 - ✓ Ministry of Transportation and Communication
 - ✓ Ministry of Education
 - ✓ Ministry of Commerce
 - ✓ Ministry of Labour, Immigration and Population
 - ✓ Myanmar Investment Commission
 - ✓ Central Bank of Myanmar
 - ✓ SME Development Committee
 - ✓ Private Sectors and Academics
- Multi Stakeholders Participations





Technology: Mobile Revolution

- In last 5 years, recorded rapid increase in mobile phone penetration from 10% to 110% (Mid 2018)





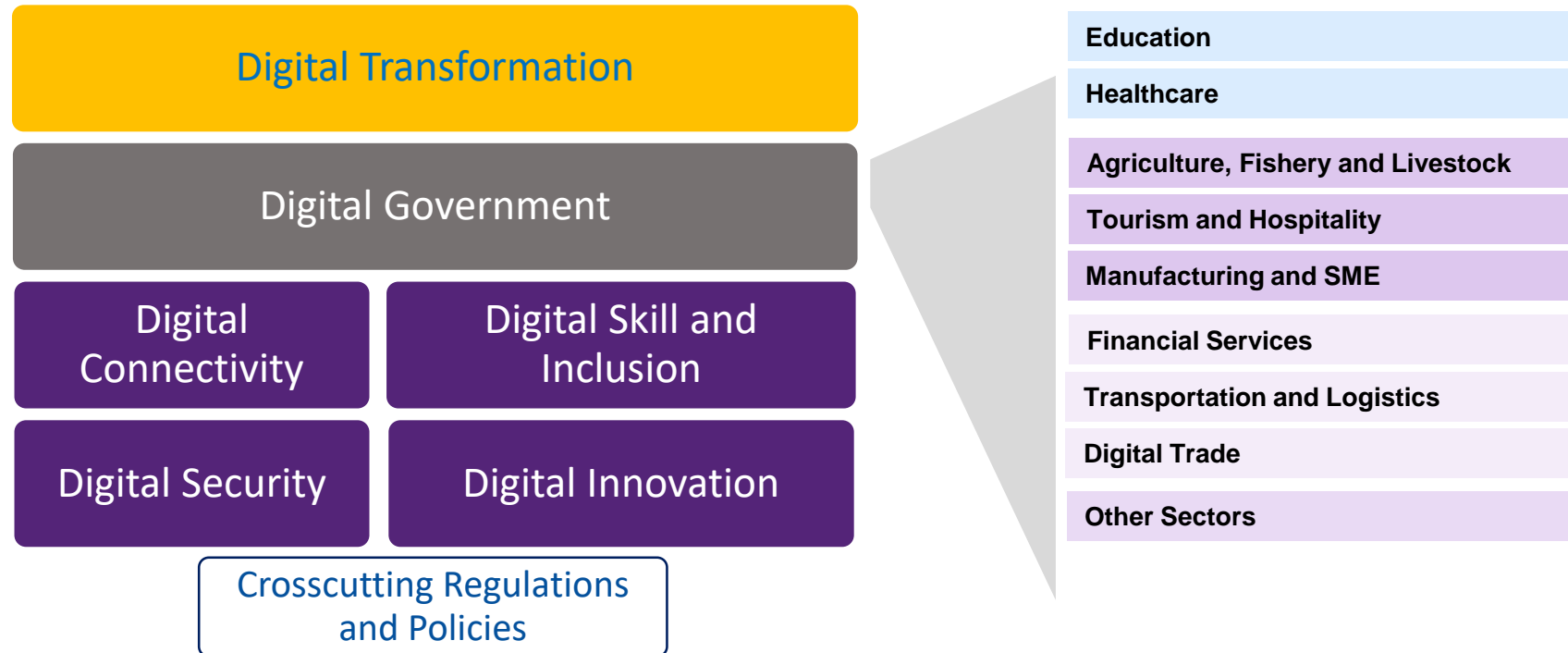
Mission Statement for Digital Economy

“Enabling Digital Transformation, Digital Government, Digital Trade and Innovation to develop a Digital Economy across all sectors for inclusive and sustainable socioeconomic development.”





Strategy Framework





Priority Sectors

Education

Healthcare

Agriculture, Fishery and Livestock

Tourism and Hospitality

Manufacturing and SME

Financial Services

Transportation and Logistics

Digital Trade

Other Sectors

❖ Proposed Action Plans

- **Agriculture** – Digital Transformation, 4IR
- **SME** – Digital Transformation, 4IR
- **Tourism and Hospitality** – Digital Marketing
- **Financial Sector** – interoperability



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MYANMAR AGRICULTURE SECTOR STATUS & TRANSFORMATION OF AGRICULTURE SECTOR





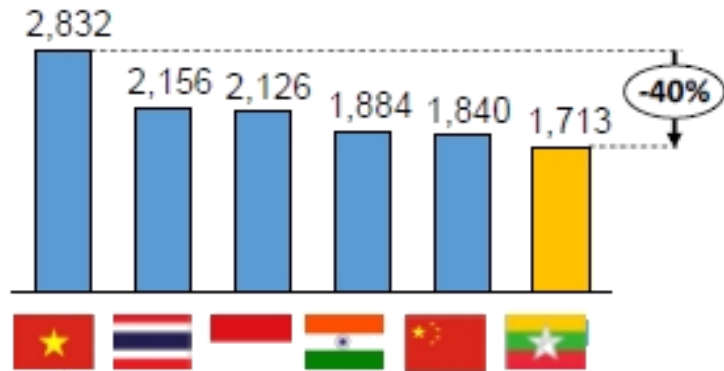
Myanmar Agriculture Sector Overview

- Agriculture sector contributes
 - 38% of GDP
 - 23% in exports
 - 60% of country's employment
- Crop production accounts for 72% of agricultural output
 - Three main crops groups include paddy, beans and pulses, and oilseed crops
- Rice is the major commodity
 - 43% of production value
- Agriculture sector contributes around 25-30% of export earnings

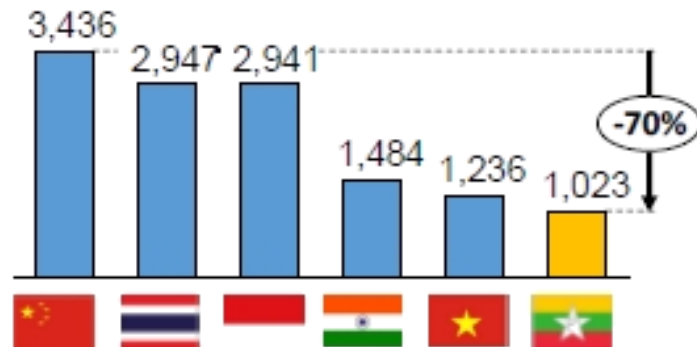


Land Productivity and Labor Productivity

Land productivity \$/ha



Labour productivity \$ per capita



- A farmer in Myanmar only earns about \$1.80-\$2.50 USD per day in monsoon season
 - Thailand: \$10.00-\$16.50 USD per day
 - Philippines: \$7.80 USD per day



Export by Commodity in MT

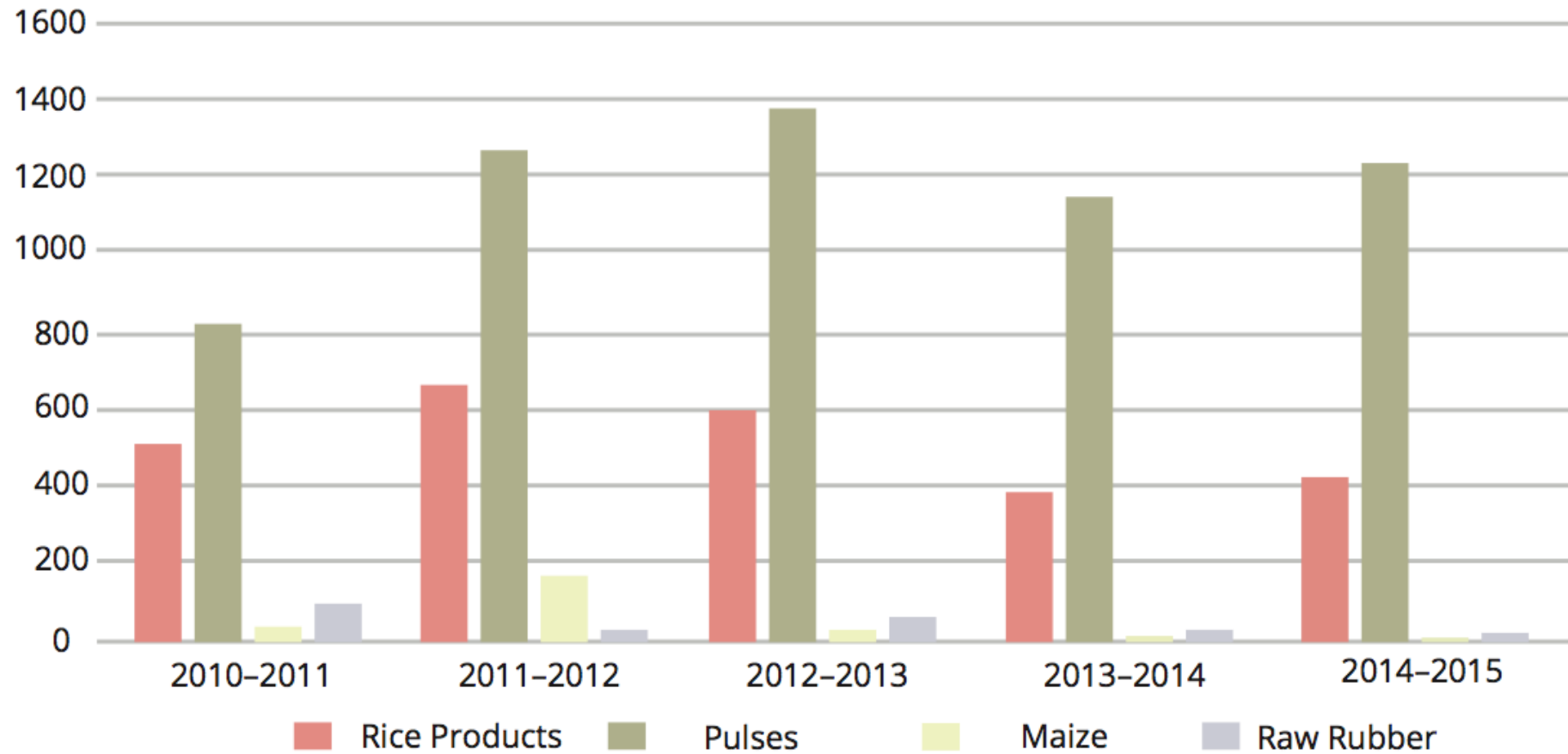


Figure 2: Export Volume of Selected Crops
(Source: Ministry of National Planning and Economic Development, 2015)



Key Challenges & Recommended Digital Solutions

❖ Key Challenges

1. Limited information access
2. Declining Production Yield
3. To optimize the use of input
4. Small-Size Farm and Lower Efficiency
5. Poor International Market Access
6. High Logistic Cost, Poor supply chain Management
7. Labor-intensive industry Low levels of mechanization results in low productivity and farm profits
8. Lack of modern warehousing, distribution and logistics facilities, packaging and branding
9. Limited access to credit and capital

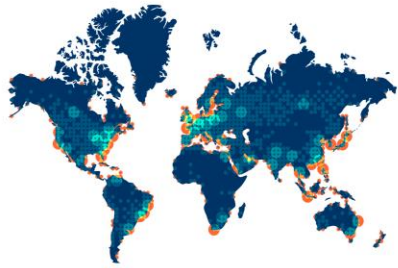
❖ Recommended Digital Solutions

1. National Online Agriculture Information Portal
2. Smart Agriculture
 - 2.1 Precision Agriculture
 - 2.2 Agriculture Automation and Smart Tractors
 - 2.3 Analyzing Image Solution/ Accessing Crop/Soil Health by Satellite & Drones
 - 2.4 Smart Corporate Farming
3. IoT Data Analytic Solution for Agriculture
 - 3.1 Automate Soil Classification with AI
 - 3.2 Agri Products tracking System
4. Digital Distribution System
5. Digital Financial Service and Online Microfinance Apps



5 USE CASES OF AI + ROBOTICS IN AGRICULTURE

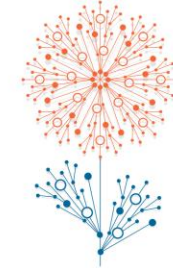
ANALYZING SATELLITE IMAGES



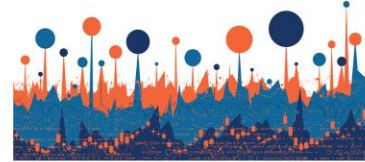
IN-FIELD MONITORING



ASSESSING CROP/SOIL HEALTH



PREDICTIVE ANALYTICS



AGRICULTURAL ROBOTS



Source: <https://www.ec2ce.com>



How can IoT enhance efficiency in the food supply chain

Product pairing



Scheduling deliveries



Smart warehousing



Integrity of cold chain



Demand prediction



Best use of talent



Predictive maintenance



Insights into logistics

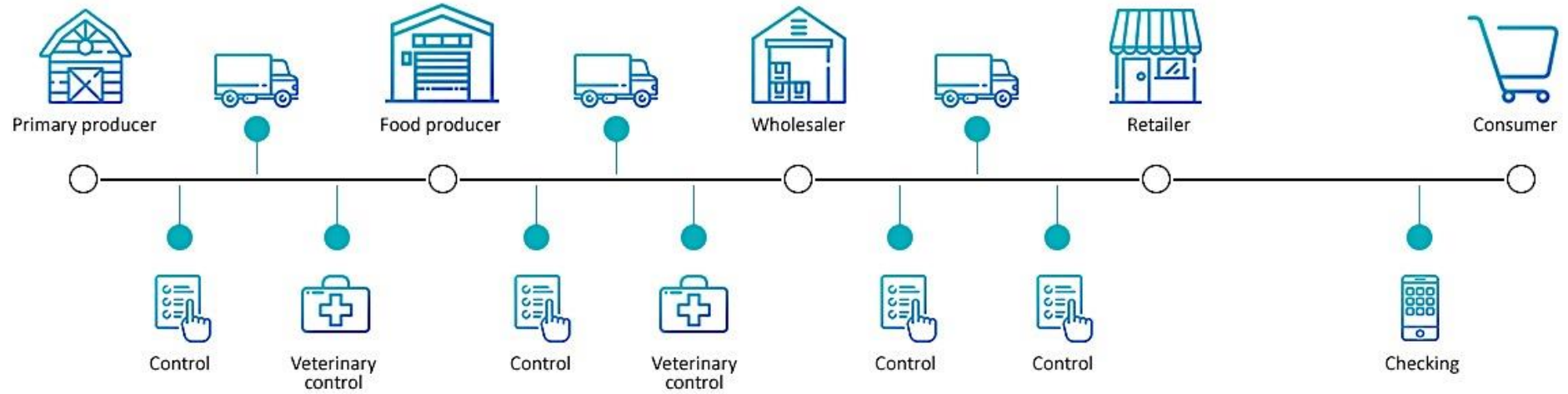


Real-time audits





Tracking system





DATA ANALYTICS

Key to Unlocking the True Power of IoT



DESCRIPTIVE
(What happened)



DIAGNOSTIC
(Why it happened)



PREDICTIVE
(What will happen)



PRESCRIPTIVE
(What actions to take)



Thank You

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