

Improving Food Value Chain and Food Security in Indonesia:

Lessons Learned from Japanese Factory Visit 2017

Presented by Aulia Rizky Elvandra, Luthfa Jamilah,
Rosyid Ridho and Syufriadi Ibrahim

Supervised by Arief Daryanto, PhD

Tokyo, September 11th, 2017



INDONESIA TEAM



Aulia Rizky Elvandra



Rosyid Ridho



Advisor by
Arief Daryanto, PhD



Luthfa Jamilah



Syufriadi Ibrahim

Presentation Outline

Introductory Remarks

Why Indonesia Matters?

Role of Agriculture in Indonesia

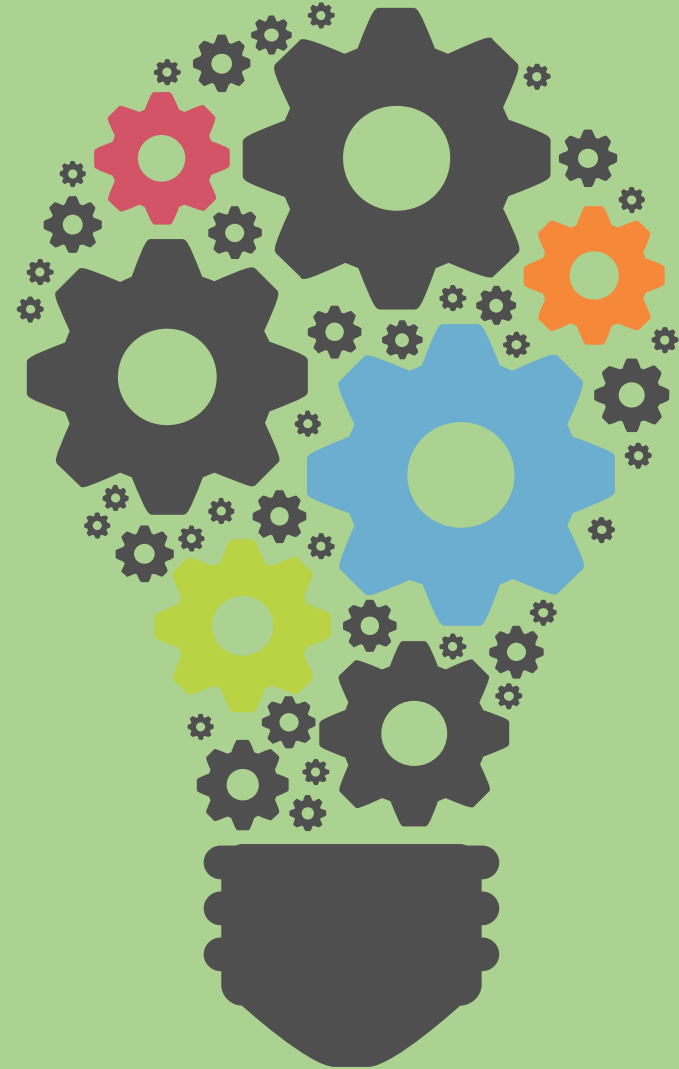
Status of Food Security in Indonesia

Key Constraints of Agriculture in Indonesia

Challenges and Opportunity in Indonesia

Lesson learned from Japanese Factory Visit

Concluding Remarks



Introductory Remarks



Control oil and you control
nations; control food and
you control the people.

Henry Kissinger

quotechan

Why Indonesia Matters?

- Total area of Indonesia **1,919** millions km²
- Consist of **17.504** islands and the five biggest islands are Sumatera, Jawa, Kalimantan, Sulawesi, Papua
- Population reached **261.1** million (Word Bank, 2016)
- Spoken Language : Bahasa Indonesia



Why Indonesia Matters?



- World **10th** largest agricultural producers, ahead of Germany and Argentina
- **The Largest** producers and exporters of palm oil
- **The second largest** producer of natural rubber
- **The third largest** rice producers

Indonesia TODAY

16th-largest
economy in the world



\$0.5 trillion

Market opportunity in consumer services, agricultural and fisheries, resources, and education

45 million member of the consuming class



53% of the population in cities producing **74%** of GDP

55 million Skilled workers in the Indonesian economy



.....and in 2030



\$1.8 trillion

Market opportunity in consumer services, agricultural and fisheries, resources, and education

7th-largest
economy in the world

135 million member of the consuming class



71% of the population in cities producing 86% of GDP



55 million skilled workers in the Indonesian economy



Role of Agriculture in Indonesia

- Contributed around **13.7%** to the country's GDP (CIA World Fact Book, 2017)
- Employed **32%** of total Indonesian labor force (CIA World Fact Book, 2017)
- Effective instrument in reducing poverty. Indonesia poverty rate is **10.8%** of the total Indonesia population (Statistics Centre Institution of Indonesia/BPS, 2016)
- Providing food and fiber → Food Security
- Providing environmental services



2016 GFSI overall rankings table

Weighted total of all category scores (0-100 where 100=most favourable)

Rank		Score/100	Rank		Score/100	Rank		Score/100
1	United States	86.6	39	Mexico	68.1	77	Honduras	48.2
2	Ireland	84.3	40	Slovakia	67.7	=78	Ghana	47.8
3	Singapore	83.9	41	Brazil	67.6	=78	Pakistan	47.8
=4	Australia	82.6	=42	China	65.5	80	Myanmar	46.5
=4	Netherlands	82.6	=42	Romania	65.5	81	Uganda	44.2
=6	France	82.5	44	Panama	64.4	82	Nepal	42.9
=6	Germany	82.5	45	Turkey	63.6	83	Kenya	42.7
=8	Canada	81.9	46	Belarus	63.1	84	Cote d'Ivoire	42.3
=8	United Kingdom	81.9	47	South Africa	62.9	85	Cameroon	41.6
10	Sweden	81.3	48	Russia	62.3	86	Senegal	41.0
11	New Zealand	81.1	49	Colombia	61.0	87	Rwanda	40.7
12	Norway	81.0	50	Bulgaria	60.6	88	Benin	40.2
13	Switzerland	80.9	51	Thailand	59.5	89	Cambodia	39.8
=14	Denmark	80.0	52	Serbia	59.4	90	Nigeria	39.4
=14	Portugal	80.0	53	Tunisia	57.9	91	Mali	39.3
16	Austria	79.3	54	Botswana	57.8	92	Tajikistan	38.6
=17	Finland	78.9	55	Peru	57.7	93	Togo	37.9
=17	Israel	78.9	56	Ecuador	57.5	94	Tanzania	36.9
19	Spain	77.7	=57	Azerbaijan	57.1	95	Bangladesh	36.8
20	Qatar	77.5	=57	Egypt	57.1	96	Syria	36.3
21	Belgium	77.4	=57	Vietnam	57.1	97	Guinea	35.0
=22	Italy	75.9	=60	Jordan	56.9	=98	Ethiopia	34.7
=22	Japan	75.9	=60	Venezuela	56.9	=98	Sudan	34.7
24	Chile	74.4	62	Morocco	55.5	100	Yemen	34.0
25	Czech Republic	73.9	63	Ukraine	55.2	101	Angola	33.7
26	Oman	73.6	64	Dominican Republic	55.1	102	Zambia	33.3
27	Kuwait	73.5	65	Sri Lanka	54.8	103	Laos	32.7
28	South Korea	73.3	66	Algeria	54.3	104	Madagascar	31.6
29	Poland	72.4	67	Paraguay	54.2	105	Malawi	31.4
30	United Arab Emirates	71.8	68	Kazakhstan	53.7	106	Burkina Faso	31.0
31	Greece	71.5	69	El Salvador	53.3	107	Congo (Dem. Rep.)	30.5
32	Saudi Arabia	71.1	70	Bolivia	51.6	=108	Haiti	29.4
33	Bahrain	70.1	71	Indonesia	50.6	=108	Mozambique	29.4
34	Hungary	69.1	72	Uzbekistan	49.8	110	Niger	29.0
35	Malaysia	69.0	73	Guatemala	49.6	111	Chad	28.6
36	Uruguay	68.4	74	Philippines	49.5	112	Sierra Leone	26.1
=37	Argentina	68.3	=75	India	49.4	113	Burundi	24.0
=37	Costa Rica	68.3	=75	Nicaragua	49.4			

2016 GFSI overall rankings table

Weighted total of all category scores (0-100 where 100=most favourable)

68	Kazakhstan	53.7
69	El Salvador	53.3
70	Bolivia	51.6
71	Indonesia	50.6
72	Uzbekistan	49.8
73	Guatemala	49.6
74	Philippines	49.5



Global Food Security Index (GFSI) Indicators

Affordability:

1. Food consumption as a share of household expenditure
2. Proportion of population under global poverty line
3. Gross domestic product per capita
4. Agricultural import tariffs
5. Presence of food safety net programs
6. Access to farmer financing

Availability

1. Sufficiency of supply
2. Public expenditure on agricultural R&D
3. Agricultural infrastructure
4. Volatility of agricultural production
5. Political instability

Quality and Safety

1. Diet diversification
2. Nutritional standards
3. Micronutrient availability
4. Protein quality
5. Food safety



- Key constraints of Indonesian Agriculture -

1. Input

- The availability of superior seed
- Land productivity increases are slowing
- Agricultural land conversion into non-agricultural sectors

2. Collection

- Lack of transport facilities
- Lack of infrastructure
- Unfair trade between the farmer and the traders
- Absence of the quality standard

3. Production

- Low production efficiency
- Low adaption to technology
- Lack of financial access

4. Processing

- Unbalanced supply & demand for the raw materials
- Lack of trained and skilled labor
- Lack of innovation
- Lack of food waste management

5. Distribution/Marketing

- Lack of organized marketing
- Supply channel bottlenecks
- Improper marketing and storage channel



Challenges

- Increase the quality of input production and productivity
- Develop technology and capital access
- Improve facilities, infrastructure, policy, and quality standards
- Continuity of raw material supply
- Human resources capacity building
- Build sustainable and inclusive agricultural practices
- Proper e-commerce implementation

$$1 \times 2 \times 3 = 6$$

➤ **Sixth sectors
industrialization model
from Japanese Agriculture**

➤ **Modernization of the
food value chains**

Opportunities

Lessons learned from Japanese food value chain for improving the competitiveness of Indonesian commodities

