THE FRAME OF AGRICULTURAL POLICY AND RECENT MAJOR AGRICULTURAL POLICIES IN INDONESIA

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Outline

1. Introduction
2. Major features of agriculture
3. Agricultural policy framework
4. Concluding remarks
Introduction (1)

Indonesian agriculture (OECD 2012):

- World’s 10th largest agricultural producer, ahead of Germany and Argentina
- The largest producer and exporter of palm oil, just ahead of Malaysia
- The second largest producer of natural rubber after Thailand,
- The third largest rice producer after China and India
Role of agriculture:

• Contributes: 14.4% share to GDP and 34.4% to employment
• Ensuring food security
• Poverty alleviation
• Source of foreign exchange earning
• Supply raw material for processing industry
• Provide natural landscape services
Major features of agriculture
## Farm structures (1)

<table>
<thead>
<tr>
<th>Farm Size (ha)</th>
<th>2003</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Household (million)</td>
<td>%</td>
</tr>
<tr>
<td>&lt;0.10</td>
<td>9.4</td>
<td>30.1</td>
</tr>
<tr>
<td>0.10-0.49</td>
<td>10.4</td>
<td>33.3</td>
</tr>
<tr>
<td>0.50-0.99</td>
<td>4.8</td>
<td>15.3</td>
</tr>
<tr>
<td>1.00-1.99</td>
<td>3.7</td>
<td>11.7</td>
</tr>
<tr>
<td>&gt;2.00</td>
<td>3.0</td>
<td>9.8</td>
</tr>
<tr>
<td>Total</td>
<td>31.2</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Calculated from Central Bureau of Statistic (CBS)
Farm structures (2)

• Food crop: tiny farms of 0.3 ha in Java and 1.4 ha in Off-Java

• Perennial crops: both smallholders and large private and state-owned farms

• Share of smallholders in area planted: 40-45% for oil palm and coffee, 80-90% for rubber and cocoa
Production of major crops (1)

- Agriculture GDP grew at 3.4%/year in 2010-2013
- OECD (2012): gross agricultural output increased by 97% in 1990-2010
- Crop production increased 97%, livestock production 89%
- Composition: away from staple (rice) toward high value commodities (palm oil)
- 2009: Rice accounted for 18.8% of total value of agricultural production
- Share of palm oil increased from 6.3% in 2000 to 11.6% in 2009
Production of major crops (2)

- Fuglie (2010): in 2002-2006 TFP increased by 2.9%/year => contributed 60% to agricultural growth, 40% increase on resource use

- **Main drivers**: adoption of improved technology, diversification into high-value commodities, and expansion of area planted to perennial crops
Production of major crops (3)

- Rice production increased at 3.5 %/year in 2005-2013, due to 1.9 % growth on harvested area and 1.45% growth on yield
- Maize production increased by 5.5%/year, due to 4.3% growth on yield and 1% growth of harvested area
- Production of palm oil in 2010 was nine times higher than in 1990
- Since 2007 Indonesia has been the largest palm oil production, ahead of Malaysia
Trade

- Perennial crops as primary contributor of export earnings
- Agriculture export in 2010-2012: palm oil 50.4%, rubber 24.6%
- Proportion on export of processed products: 45% palm oil and 46.7% cocoa
- Import: food crops, horticulture, and beef
Agriculture policy framework
Agriculture development plan(1)

- **Primary goals of agricultural development:**
  1. Achieve and maintain self sufficiency on five priority commodities (rice, maize, soybean, sugar, beef) => highest priority
  2. Enhance food diversification
  3. Increase value added, export, and competitiveness
  4. Increase farmers’ welfare
Agriculture development plan (2)

- Seven strategic policies:
  a) land resources
  b) seed and breed
  c) Infrastructures
  d) human resources
  e) agriculture finance
  f) farmers’ institution
  g) technology and downstream industry
Agricultural land policies

- 46.8% of farmers are smallholder (<0.5 ha)
- Conversion of agricultural land to other uses: 100 thousand ha/year
- Law No. 41/2009 on Protection of Sustainable Food Crops Farmland:
  a) local government determines a protected zones dedicated to food crop production;
  b) land conversion in the protected zone must replaced by the land with similar quality in other region
  c) local government in charge of monitoring the implementation of the law in the corresponding region
Environment and natural resources (1)

- The Law No.23/1997 and No.32/2009 on Environmental Management:
  - supports the principles of environmentally sustainable development
  - promotes the precautionary principle
  - inter-generational equity and the polluter-pays principle
  - sets the rules and obligations to perform the environmental impacts assessment of agricultural projects
  - licenses to large project and sanction to defender
Environment and natural resources (2)

- Government sets commitment to reduce GHG emission by 26% in 2020
- Government established Indonesian Sustainable Palm Oil (ISPO) to enhance environmental sustainability of palm oil production => mandatory since 2012
Production and marketing (1)

- Self sufficiency on rice receives the highest support
- Ministry of Agriculture set the target on planted area, yield, and production disaggregated by province and regency
- Policies to achieve the targets: (a) dissemination of new technology; (b) facilitate the availability of production inputs; (c) subsidy on fertilizer and seed; (d) procurement of paddy at the reference price; (e) support to extension services
Production and marketing (2)

Subsidy on fertilizer and seed:
- Channel indirectly through fertilizer companies
- The companies distribute and sell fertilizer at lower price
- Exclusive for food crop farmers operating land < 2 ha
- Total subsidy in 2013: US$ 1.4 billion (37% of agriculture development budget)

**Issues:** (a) leakage of fertilizer to non-subsidized market; (b) encourage overuse of fertilizer; (c) fiscal burden
# Production and marketing (3)

## Comparison of market and subsidized price of fertilizer, 2013

<table>
<thead>
<tr>
<th>Fertilizer</th>
<th>Market Price (US$/kg)</th>
<th>Subsidized price (US$/kg)</th>
<th>Subsidy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>0.31</td>
<td>0.16</td>
<td>48.4</td>
</tr>
<tr>
<td>SP-36</td>
<td>0.47</td>
<td>0.17</td>
<td>63.8</td>
</tr>
<tr>
<td>Ammonia (ZA)</td>
<td>0.27</td>
<td>0.12</td>
<td>55.6</td>
</tr>
<tr>
<td>Compound (NPK)</td>
<td>0.50</td>
<td>0.20</td>
<td>60.0</td>
</tr>
<tr>
<td>Organic</td>
<td>0.17</td>
<td>0.04</td>
<td>76.5</td>
</tr>
</tbody>
</table>
Production and marketing (4)

Price policy:

- The government determine procurement price as a reference for BULOG to buy rice from the farmers
- The quantity of rice procured only 5% to total production=>influence market price to move upward
- The use of rice stock at BULOG: (a) sold to the poor at subsidized price (RASKIN); (b) open market operation to stabilize price
Production and marketing (5)

Price policy:

- Domestic rice price around 13-18% higher than the world market price
- Rice farmers enjoy price protection, but negative impacts to consumers
- OECD (2014): increase the number of people under nutrition by 2-22%
Food security and safety (1)

- Guiding principle: Food Law No.18/2013
- Pursue food sovereignty and food self reliance
- Food import is allowed when domestic production cannot meet domestic consumption
A twin-tract strategy: (a) in the long run, promote economic development to provide employment and income; (b) meet demand for food, particularly the poor and vulnerable people through direct assistance and community empowerment.

Food safety:

- National Drug and Food Agency set a policy on food standard and regularly collect food sample and conduct laboratory test of food products sold in the market place.
- The Ministry of Agriculture: facilitate farmers to produce food in accordance to the standard.
Agricultural disaster insurance (1)

- Indonesia is prone to natural disasters affecting agriculture: pest and diseases, earthquake and tsunami, flood and drought
- OECD (2014): infestation of brown plant hopper in 1998 and 2011, reduced rice production by 12%
- Direct assistance in the case of crop loss: US$ 321.7/ha
- In the case of partial damage: provide assistance in the form of seed or fertilizer
Agricultural disaster insurance (2)

Agricultural insurance:

- Mandated by the Law No.19/2013 on the Protection and Empowerment of Farmers
- In the process of pilot test involving local government and insurance company
- Cover 2,203 ha of rice crop in East Java and South Sumatera provinces
- Exclusive for farmers cultivating <2 ha of land
- Insurance coverage US$ 521.7/ha in the case of 75% crop loss
- Premium US$ 15.7/ha => 80% subsidized by the government
Trade liberalization counter measures (1)

- Deregulation on trade policy (include agriculture) responding to various commitments: WTO, ASEAN Economic Community, Free Trade Agreement (FTA) with selected countries
- Most Favored Nation (MFN) tariff of agriculture products was around 5.3% in 2010, lower than the corresponding bound rate (47%)
- Rice: specific tariff rate (US$ 0.04/kg) => equivalent to 20% of ad valorem tariff
- Import of medium quality rice is only implemented by BULOG at the amount decided by the government
Trade liberalization counter measures (2)

- Specific tariff for sugar: US$ 0.05/kg for raw cane sugar, US$ 0.06/kg for raw beet sugar => equivalent to 30% and 35% *ad valorem* tariff
- Non-tariff barrier: import of beef and horticulture products is subject to import permit coupled with quantity restriction
- Import is temporary terminated if domestic price reach a threshold level
- Export of palm oil and cocoa bean is subject to export levies to promote domestic food processing industries
Agricultural science policies and technology development (1)

- Agriculture R&D is coordinated by Indonesian Agency for Agricultural Research and Development (IAARD)
- Consist of 11 Institutes focusing on commodities (food crops, horticulture, estate crops, livestock) and cross-cutting issues (soil and agro-climate, socio-economic and policy, machinery, postharvest, and biotechnology)
- Sub-divided into 18 research centers and 33 assessment institutes focusing on adaptive research =>located in all provinces around the country
Agricultural science policies and technology development (2)

Figure 1. Public agricultural R&D spending as a share of agricultural GDP, 2005

Source: Agricultural Science and Technology Indicators (ASTI) database; World Bank staff calculations (WB, 2012) as reported by OECD (2012).
Figure 2. Comparison of % PSE in selected countries, 2006-2010

Source: OECD (2012)
Measurement of policy support (2)

Figure 3. Comparison of % TSE in selected countries, 2006-2010

Source: OECD (2012)
Concluding remarks (1)

• Agricultural development policy => focuses more on food security => achieving self-sufficiency on food production
• Primary policy instruments: price support and fertilizer subsidy
• Price support policy => increase the rate of under nutrition (most of them poor household)
• Fertilizer subsidy => benefits primarily goes to large scale farmers, and creates budgetary burden to the government
Concluding remarks (2)

• Agricultural support measured by TSE as % to agricultural GDP was sizeable => a burden to the economy

• Focus of future agricultural development policy:
  a) general support: R&D, infrastructure, environment conservation, sertification and standard
  b) “bioindustry” development to utilize all agriculture biomass to produce food, feed, energy, fertilizer, and chemical products
Thank you
Ministry of Agriculture, the Republic of Indonesia,
http://www.pertanian.go.id