FOOD SECURITY IN INDONESIA: CHALLENGES AND POLICY RESPONSES

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## Overview on Food Security Situation (1)

**Productivity growth, 2005-2020 (%/year)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rice</th>
<th>Maize</th>
<th>Soybean</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2010</td>
<td>1.92</td>
<td>5.19</td>
<td>1.09</td>
</tr>
<tr>
<td>2010-2015</td>
<td>1.14</td>
<td>3.43</td>
<td>2.68</td>
</tr>
<tr>
<td>2015-2020</td>
<td>-0.02</td>
<td>2.35</td>
<td>-0.20</td>
</tr>
<tr>
<td>2005-2020</td>
<td>0.79</td>
<td>3.43</td>
<td>1.16</td>
</tr>
</tbody>
</table>

**Source:** FAO.Stat

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### Food balance 2022 (1k ton)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Rice</th>
<th>Maize</th>
<th>Beef</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>31,812</td>
<td>16,274</td>
<td>510</td>
</tr>
<tr>
<td>Consum’n</td>
<td>29,541</td>
<td>14,127</td>
<td>706</td>
</tr>
<tr>
<td>Import</td>
<td>-</td>
<td>-</td>
<td>193</td>
</tr>
<tr>
<td>Balance</td>
<td>7,543</td>
<td>2,866</td>
<td>(134)</td>
</tr>
</tbody>
</table>

**Source:** National Food Agency

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Surplus on rice and maize, but deficit on beef, soybean, and rely on import for wheat.
Overview on Food Security Situation (2)

Energy intake by income quintile

<table>
<thead>
<tr>
<th>Household group by income (quintile)</th>
<th>Energy Intake (kcal/cap/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>1,685</td>
</tr>
<tr>
<td>21-40%</td>
<td>1,954</td>
</tr>
<tr>
<td>41-60%</td>
<td>2,115</td>
</tr>
<tr>
<td>61-80%</td>
<td>2,302</td>
</tr>
<tr>
<td>81-100%</td>
<td>2,505</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Year</th>
<th>National (%)</th>
<th>Urban (%)</th>
<th>Rural (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>37.2</td>
<td>32.5</td>
<td>42.1</td>
</tr>
<tr>
<td>2018</td>
<td>30.8</td>
<td>27.9</td>
<td>34.9</td>
</tr>
<tr>
<td>2019</td>
<td>27.7</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>2020</td>
<td>24.4</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

Energy consumption/capita, 2015-2020 was above the standard (2.100), except the two lowest income quintile.
Challenges in Food Security (1)

1. Covid-19 pandemic:
   - bottleneck on downstream segments of the supply chain
   - decreased access to food for poor household

2. Rusia-Ukraine war:
   - increased prices of wheat import=>impact to household and food processing industry
   - limited supply and increased prices of imported fertilizer

3. Recent outbreak of foot and mouth deseaseas
   - In 9 August 2022: 19 provinces infected, 470,797 heads of cattle, 8,160 heads must be slaughtered with compensation
   - Loss of productive cattle (asset) for the farmers
   - Increase beef prices
   - Increase import of cattle and beef
Challenges in Food Security (2)

1. Impact to domestic prices:
   - Inflation rate in July 2022 increased to 4.94% (y-o-y), from 1.52% in 2021 => food and transportation as significant contributor;
   - Wholesale price index in July increased to 5.35% from 2.71% in 2021

2. Impact on rural households, urban poor, and SMEs:
   - Constraints to access necessary inputs including labor
   - Slow down productive activity which finally reduce income
   - Decreased physical transaction for both input and output
   - Decreased food consumption due to limited access and higher prices
   - Decreased access to public services
Policy Responses: short term steps

- Social protection schemes:
  - farmers: direct assistance on input, expand target and value of KUR, connect to traders and processors; cash for work program
  - consumers: increase the target and value of direct payment (BPNT), cash for work program, promote online shopping in the farmers shop (TTI)

- To reduce fiscal burden=>increased subsidised prices of petroleum since 10 July (12-20%), and electricity since 1 July (17.64-36.61%)

- Changes on fertilizer subsidy policy: i) only urea and NPK are subsidized from 6 types in the past; limit fertilizer use for only 9 strategic commodities (rice, maize, soybean, chili, shallot, garlic, sugar cane, coffee, and cocoa) compared to 70 commodities in the past

- Respond to FMD: compensation for slaughtered cattle (IDR 10k/head), vaccination (1.2 mill head), biosecurity measures;
Policy Responses: longterm strategy (2)

1. Grand strategy: rural transformation to accelerate rural income growth and reduce poverty
   ✓ promote agriculture structure from staple food toward high value commodities: share of high value increased from 40.6% in 1990-1999 to 50.2% in 2010-2019
   ✓ promote broader rural non-farm employment: rural non-farm employment increased from 48.0% in 1990-1999 to 66.0% in 2010-2019

2. Improving crop productivity:
   ✓ promote adoption of high yielding varieties
   ✓ promote application of balanced fertilizer use
   ✓ application of Good Agricultural Practices (GAP)

3. Modernization of food systems:
   ✓ characteristics: resilient, efficient, inclusive, and environment friendly
   ✓ investment in irrigation, rural road
   ✓ reducing post-harvest losses
   ✓ promote application of improved technology
4. Agriculture R&D:
   ✓ increase R&D budget
   ✓ intensify R&D dissemination, in particular for smallholder farmers
   ✓ reorient R&D program responding to the emerging issues: under nutrition, stunting, climate change, and environmental issues
   ✓ promoting adoption of digital technology
   ✓ manage the risk of slowing agricultural technology innovation in the process of current R&D reform

5. Promote more open, predictable, transparency trade policy
   ✓ Covid-19 pandemic and other shocks motivate defensive policy for the interest of domestic market
   ✓ consequences to commodity shortages and soaring world prices
G20 Agriculture Working Group

1. Priority issue 1: Develop a sustainable and resilient food and agriculture system
   - promote diversification and reduces waste and losses
   - increase inclusiveness in the food value chain, in particular the role of women and youth
   - increase capacity and support to SMEs to contribute post pandemic recovery and food security

2. Priority issue 2: Promote an open, predictable, and transparency trade to secure food availability and accessibility for all
   - strengthen supply and value chain across member countries to secure food availability and accessibility
   - increase participation of member countries in the AMIS

3. Priority issue 3: Support an innovative agricultural entrepreneurship through digital agriculture to improve farmers' livelihood in the rural regions
   - increase public and private collaboration of in digital agriculture, in particular for smallholder farmer
   - knowledge sharing on the application of digital agriculture for smallholder
   - increase access to financial services for smallholder
Lessons learnt and way forward

1. Too much dependence of rice (and wheat to a lesser extent);
   ✓ diversification by developing local food systems and production;
   ✓ diversification toward wheat substitute (at least partially, e.g cassava mocaf)

2. Institutional development:
   ✓ Strengthen the National Food Agency and Logistics Agency (BULOG)
   ✓ Simplify coordination across line ministries
   ✓ Strengthen management of downstream segment of the food value chains
   ✓ BULOG as commercial and operational body of the NFA: domestic market operation and import of strategic commodities=>issues of crowding out private sector role

3. Agriculture support policy
   ✓ Budget for fertilizer subsidy is accounted for more than 30% of total expenditure supporting agriculture=>phased out the subsidy and reallocate the budget to finance public good and services such as infrastructure, R&D, etc
Thank You