

## Policy Brief

# Maintaining Food Security During the Covid-19 Pandemic

### Key Messages:

- In addition to causing health-related issues, the Covid-19 pandemic has had various social and economic consequences, including in the agriculture sector.
- It is an undeniable fact that adequate supply determines the stability of staple food prices. The government needs to secure the supply of staple food which is playing a vital role during the pandemic.
- Stimulus for agriculture sector is needed to maintain socio-economic security and speed up economic recovery.
- The government can intervene on agricultural inputs which make a relatively substantial contribution to production—such as fertilisers, high-quality seeds, and pesticides. Another intervention that may be done is the provision of an unsecured loan program for farmers by empowering Village-Owned Enterprises (BUMDes).
- The government needs to ensure stimulus programs are well-executed and implement a contract system with farmers to assure cultivation priorities in the next planting season, with a commitment to purchase crops that have been cultivated in the next harvesting season.

## BACKGROUND

Covid-19 has damaged the Indonesian food system. It is estimated that employment in the agricultural sector will contract by 4.87 per cent while domestic agriculture output will contract by 6.2 per cent. Imports will fall by 17.11 per cent and prices are predicted to rise by 1.20 per cent in the short-term and 2.42 per cent in 2022. With a fall in both domestic supply and imports, there is potential for significant food shortages and food price inflation.

During the 2008 crisis, food security became the government's main concern. The same problem will be a critical issue this time, in both its national scale and in some vulnerable regions. The high under-nutrition rate in most regions is certainly due to food shortages in the last crisis. It is, therefore, important for Indonesia to protect this year's planting season and ensure an

adequate production of rice. To achieve this, farmers need to have inputs.

Current data shows that the agriculture sector has contracted. In February 2020, the workforce in the agricultural sector fell by 60,000 people or approximately 0.42 per cent compared to the previous year (BPS 2020a). In the first quarter of 2020, the agriculture sector grew by an annualised rate of only 0.02 per cent. Nevertheless, this sector still has sufficient potential to boost economic growth. By quarter, agriculture still grew by 9.46 per cent (BPS 2020a).

In Indonesia's poor and remote areas, food insecurity was occurring even before the coronavirus outbreak. Currently, with the loss of income sources from remittances and livelihoods outside agriculture, large-scale insecurity will occur, unless there is replacement income for that lost in from agriculture. Direct cash

transfers for households will not be sufficient to cover the large upfront investment needed to obtain agricultural inputs.

To date, the government’s food security policies have focused on securing staple food supply. The activities that have been undertaken not only involve various measures to improve domestic production, but also temporary actions to remove tariffs and relax non-automatic import license requirements (letter of import approval) for important food staples such as beef and sugar. For example, if tariffs are removed, the price of agricultural imports may still increase, but only by 0.65 per cent. Other measures include assistance for poultry farmers, an increase in agricultural credit, and price incentives for cereal.

Nevertheless, the main pillar of food security strategy lies in the farmers’ hands. The crisis will not only affect their own household consumption but also their ability to grow and harvest crops. Indonesia depends almost entirely on domestic production of staples, including rice, corn, and cassava. With a ban on rice exports in Vietnam and India, the Government of Indonesia must ensure that small-scale farmers do not miss this year’s planting season. This is critical as many farmers may face difficulties in obtaining inputs for planting—caused by either a lack or loss of remittances from family members or loss of income from work outside the planting season.

The availability of staple food during the pandemic is critical as food is a basic necessity (Table 1). This issue needs attention given that, without sound management, the Covid-19 pandemic can lead to a food crisis. On the one hand, the Covid-19 pandemic demands the implementation of social restrictions. On the other hand, despite more restricted activities in the community, it is estimated that food consumption will remain unchanged.

**Table 1: Consumption of Staples per Week**

| Staples | Total | Unit           |
|---------|-------|----------------|
| Rice    | 408.6 | Thousand Tons  |
| Beef    | 2.4   | Thousand Tons  |
| Chicken | 31.8  | Thousand Tons  |
| Egg     | 579   | Million        |
| Chilli  | 20.2  | Thousand Tons  |
| Shallot | 139.8 | Million Ounces |
| Soybean | 245   | Tons           |
| Corn    | 12.8  | Thousand Tons  |

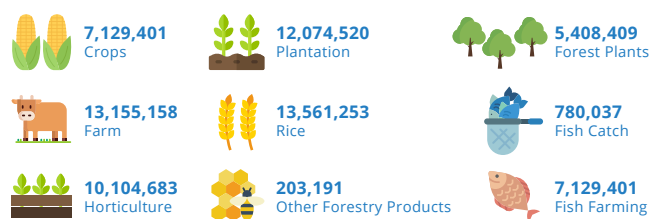
Source: The Ministry of Finance, Materials for Limited Cabinet Meeting, Jakarta, 9 April 2020.

The stability of staple food prices is influenced by the availability of adequate supplies. At the end of April 2020, it was estimated that there was a deficit in the stock of food staples in some regions. Rice stocks in Riau, Bangka Belitung, Riau Islands, North Kalimantan, Maluku, North Maluku, and West Papua were in deficit. There was an estimated shortage of corn in 11 provinces, including Sumatra (3 provinces), Java (3), Kalimantan (2), Papua (2), and Bali. Other food commodities that were in deficit were chilli (23 provinces), cayenne pepper (19), chicken eggs (22), chicken (14), beef (5), garlic (31), sugar (30), and shallot (1) (Table A3). Only the supply of cooking oil was in surplus in all provinces.

## THE CONDITIONS OF FOOD CROPS

The Covid-19 pandemic has not only affected people’s health but has also had various socioeconomic impacts—including food fulfilment. To meet food needs, domestic production plays a key role, although there is an option for imports. During a pandemic, however, imports may also face constraints as some countries restrict exports to meet their own domestic food needs.

**Figure 1: The Number of Households Conducting Agricultural Business (by Subsector) (2018)**



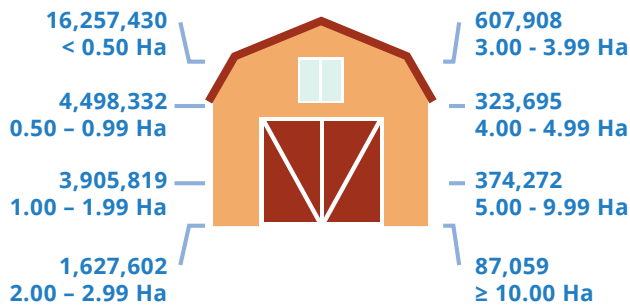
Source: BPS, Results of the 2018 Inter-Census Agricultural Survey.

Indonesia actually has sufficient assets to meet domestic needs (Figure 1). According to the 2018 Inter-Census Agricultural Survey (*Survei Pertanian Antar Sensus: SUTAS*), there is a total of 27,682,117 agricultural households (“*Rumah Tangga Usaha Pertanian: RTUP*”) in Indonesia. This number rose by 5.71 per cent compared to that reported in the 2013 Agricultural Survey. Of the total number, 47.5 per cent of RTUP produced rice and 25.8 per cent produce other crops.

The main problem that requires attention of policy makers in the agriculture sector is the poor level of productivity in some areas. Areas experiencing a deficit in rice supply are those with a poorer level of production than the national average. Serious intervention is needed in these areas to improve rice production to meet the food needs of the people in these areas.

Another problem in the food crop sector is that micro-scale farmers are more dominant in the RTUP group. Results from the 2018 SUTAS indicated that 58.7 per cent of farmers were smallholders owning less than 0.5 hectare of land (Figure 2). The short-term intervention needed for this group include an effort to improve the productivity of land by cultivating commodities that are relevant to this group.

**Figure 2: Number of Households Based on the Size of Land Owned (2018)**

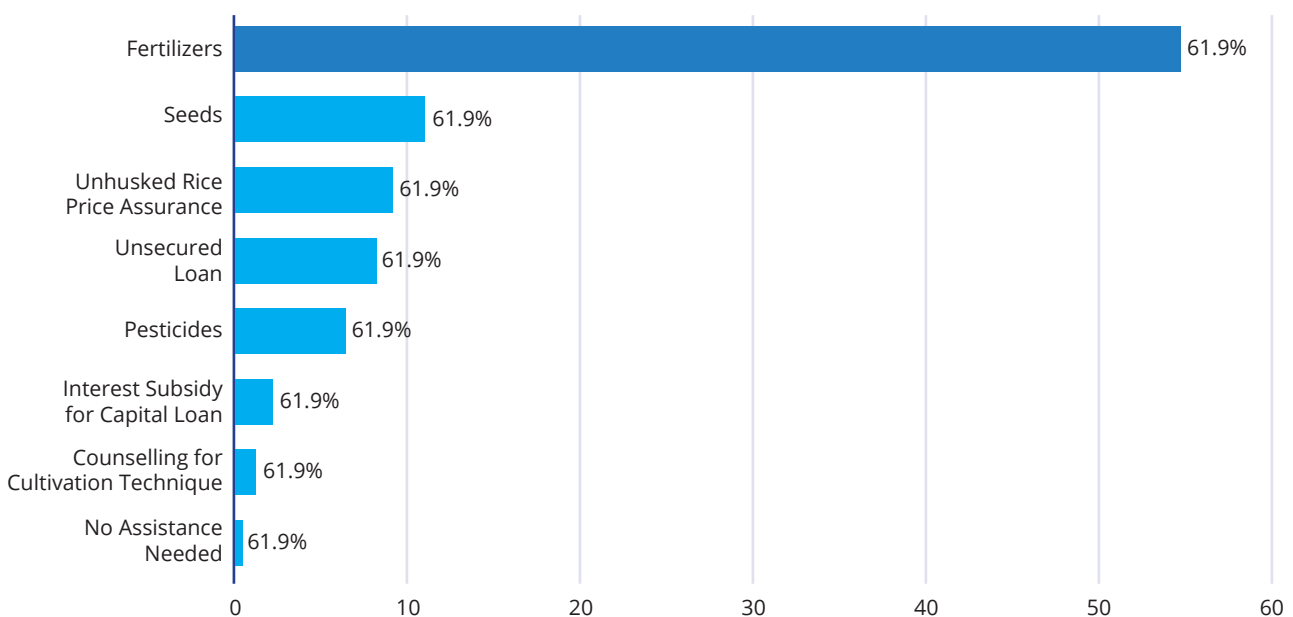


Source: BPS, 2019, Results of the 2018 Inter-Census Agricultural Survey.

In general, the rice, corn, and soybean agriculture sectors remain promising and are considered sectors that can generate profit. Results of the Survey on Rice/Crops Cost Structure (*Struktur Ongkos Usaha Tani: SOUT*) 2017 (BPS 2018) conducted in 34 provinces recorded net income ratios of 26.7 per cent (wet rice farming), 21.3 per cent (dryland rice), 29.1 per cent (corn), and 11.9 per cent (soybeans). Agricultural labour and services dominated production costs for each agricultural product—at 48.8 per cent, 60 per cent, 48.6 per cent, and 47.2 per cent respectively.

Results of the 2017 SOUT concerning perceptions of farmers indicated that the government intervention most needed by farmers to maintain their agriculture business is fertiliser (55.7 per cent) (Figure 3). This condition is in line with the agriculture sector’s level of dependency on fertilisers—with only 3 per cent of farmers not using fertilisers. It is also hoped that the government can provide high-quality seeds, a price guarantee for the price of unhusked rice, unsecured loans, and pesticides.

**Figure 3: Farmers Expectations of Government/Local Government Assistance**

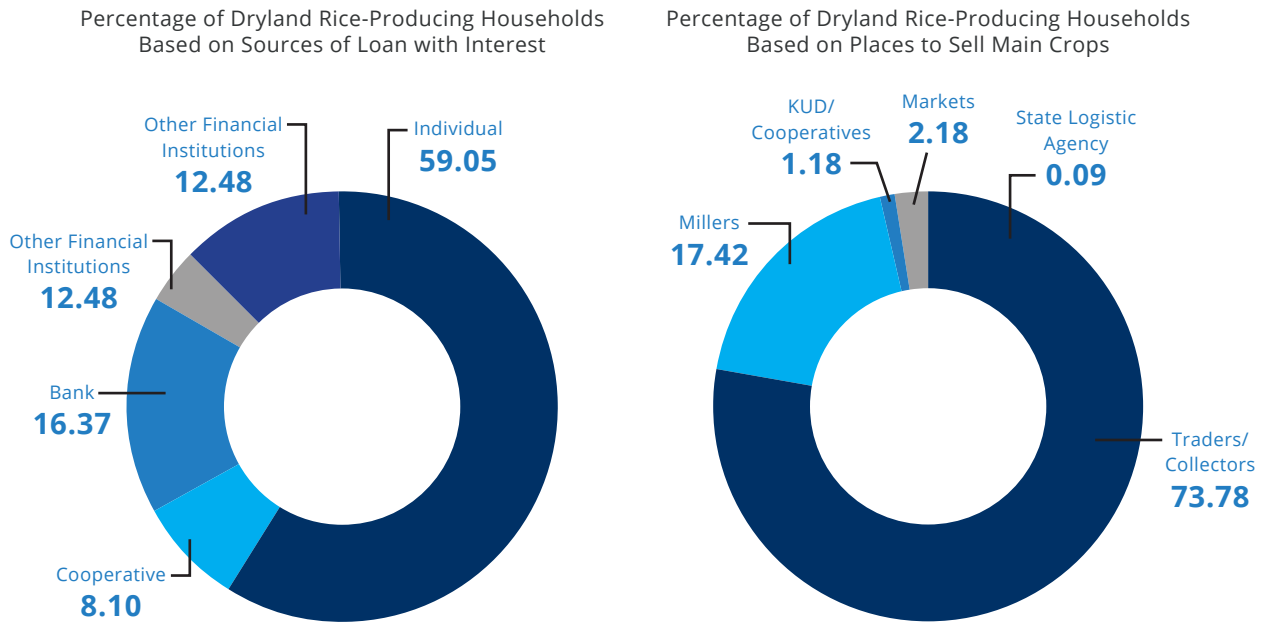


Source: BPS 2018: Results of the 2017 Survey on Rice Farm Cost Structure (SOUT 2017).

To maintain domestic food security during the Covid-19 pandemic, the government needs to provide stimuli for the agriculture sector with the aim of improving the production of staple food crops. According to results of SOUT 2017, there are production components in the agricultural sector that can be used as the benchmark and instruments for intervention through fiscal stimuli for agriculture sector. The government can provide stimulus in the procurement of seeds, fertilisers, and pesticides to improve production in the short term.

To illustrate, fertilisers contributed 4-9 per cent to total production costs while seeds accounted for approximately 3-8 per cent (BPS 2018). Pesticides, meanwhile, accounted for approximately 3-4 per cent of production cost. Rather than providing farmland as previously mentioned, it is possible to undertake these interventions in the short term in order to improve availability of domestic food.

**Figure 4: Profile of Agricultural Household Based on Access to Market and Capital**



Source: BPS 2018.

Results of the SOUT 2017-Rice Business Survey (SPD) indicated that dryland rice-producing households still encountered difficulties in accessing bank loans (BPS 2018). According to the survey, only 16.37 per cent of dryland rice-producing households received most or all of their loans with interest from the banks (Figure 4). Most households (59.05 per cent) received loans with interest from individuals and used them to finance their agricultural business. The main reasons why most households did not take out a loan from a bank is because they did not have collateral and the complexity of the loan procedure—at 26.77 per cent and 31.48 per cent respectively. A majority of households sell their crops to traders/collectors (73.78 per cent) and to millers (17.42 per cent) (Figure 4). The availability of village funds and Village-Owned Enterprises (*Badan Usaha Milik Desa*: BUMDes) can offer an alternate solution to these problems.

### NATIONAL FOOD POLICY RECOMMENDATIONS

- The government needs to ensure the availability of food during the current pandemic. Stimuli for agriculture sector are needed to maintain socio-economic security and speed up economic recovery.
- The government can intervene on agricultural production inputs that provide a relatively large contribution—such as fertilizers, high-quality seeds, and pesticides. Another intervention that may be done is provision of an unsecured loan program for farmers.
- The government needs to instruct related institutions and local government to map the required interventions for the agricultural commodities that are most suited to each region, with involvement of human resources that work in the field, such as agricultural instructors and village mentors.
- The government needs to ensure that stimulus programs for the agriculture sector run well and implement contract system with farmers to ensure priority crops can be cultivated in the next planting season, with commitment to purchase crops that have been cultivated in the next harvesting season.

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## APPENDIX

**Table A1:** Production Value and Cost per Planting Season per Hectare for Cultivation of Wetland Rice, Dryland Rice, Corn, and Soybeans (2017)

| Description                              | Wetland Rice     |               | Dryland Rice     |               | Corn             |               | Soybeans         |               |
|--|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|
|  | Value (000 Rp)   | %             | Value (000 Rp)   | %             | Value (000 Rp)   | %             | Value (000 Rp)   | %             |
| <b>A. Production</b>                     | <b>18,514.84</b> | <b>100.00</b> | <b>10,739.79</b> | <b>100.00</b> | <b>14,385.53</b> | <b>100.00</b> | <b>10,274.31</b> | <b>100.00</b> |
| 1. Main                                  | 18,437.65        | 99.58         | 10,600.49        | 98.70         | 14,259.29        | 99.12         | 10,123.90        | 98.54         |
| 2. Additional                            | 77.19            | 0.42          | 139.30           | 1.30          | 126.24           | 0.88          | 150.41           | 1.46          |
| <b>B. Cost of Production</b>             | <b>13,559.30</b> | <b>100.00</b> | <b>8,455.71</b>  | <b>100.00</b> | <b>10,197.14</b> | <b>100.00</b> | <b>9,045.85</b>  | <b>100.00</b> |
| 1. Seeds                                 | 514.36           | 3.79          | 401.96           | 4.75          | 899.12           | 8.82          | 591.02           | 6.53          |
| 2. Fertilisers                           | 1,278.00         | 9.43          | 710.59           | 8.40          | 1,370.09         | 13.44         | 449.18           | 4.97          |
| 3. Pesticides                            | 569.55           | 4.20          | 296.59           | 3.51          | 352.02           | 3.45          | 363.57           | 4.02          |
| 4. Agriculture labour and services       | 6,615.19         | 48.79         | 5,074.31         | 60.01         | 4,951.13         | 48.55         | 4,272.07         | 47.23         |
| a. Paid labour                           | 2,282.09         | 16.83         | 1,701.36         | 20.12         | 1,663.09         | 16.31         | 1,456.44         | 16.10         |
| b. Unpaid labour                         | 1,946.97         | 14.36         | 2,776.71         | 32.84         | 2,497.37         | 24.49         | 2,274.25         | 25.14         |
| c. Agriculture services                  | 2,386.13         | 17.60         | 596.24           | 7.05          | 790.67           | 7.75          | 541.38           | 5.99          |
| 5. Land rents/estimated land rents       | 3,472.36         | 25.61         | 1,204.78         | 14.25         | 1,792.48         | 17.58         | 2,613.33         | 28.89         |
| 6. Land tax (PBB)/estimated PBB          | 80.10            | 0.59          | 48.37            | 0.57          | 58.28            | 0.57          | 76.25            | 0.84          |
| 7. Loan interest/estimated loan interest | 35.48            | 0.26          | 16.90            | 0.20          | 44.47            | 0.44          | 10.90            | 0.12          |
| 8. Retribution/collection/due            | 78.30            | 0.58          | 23.46            | 0.28          | 42.19            | 0.41          | 52.85            | 0.58          |
| 9. Insurance premium                     | 1.77             | 0.01          | 3.58             | 0.04          | 1.30             | 0.01          | 1.36             | 0.02          |
| 10. Rent/estimated rent of equipment     | 398.81           | 2.94          | 236.57           | 2.80          | 230.03           | 2.26          | 208.44           | 2.30          |
| 11. Depreciation                         | 211.39           | 1.56          | 163.91           | 1.94          | 155.42           | 1.52          | 179.17           | 1.98          |
| 12. Fuel                                 | 127.90           | 0.94          | 107.96           | 1.28          | 132.57           | 1.30          | 113.46           | 1.26          |
| i. Oil (BBM)                             | 123.43           | 0.91          | 104.66           | 1.24          | 128.42           | 1.26          | 106.37           | 1.18          |
| ii. Gas (BBG)/LPG                        | 4.47             | 0.03          | 3.30             | 0.04          | 4.15             | 0.04          | 7.09             | 0.08          |
| 13. Others                               | 176.09           | 1.30          | 166.73           | 1.97          | 168.04           | 1.65          | 114.25           | 1.26          |
| <b>C. Revenue</b>                        | <b>4,955.54</b>  | <b>0.37</b>   | <b>2,284.08</b>  | <b>0.27</b>   | <b>4,188.39</b>  | <b>0.41</b>   | <b>1,228.46</b>  | <b>0.14</b>   |
| <b>D. Benefit to Cost Ratio (C/B)</b>    | <b>0.37</b>      |               | <b>0.27</b>      |               | <b>0.41</b>      |               | <b>0.14</b>      |               |

Source: BPS (2018).

**Table A2: Harvested Area Size, Production, and Rice Productivity Based on Provinces (2018-2019)**

| PROVINCE                | Harvested Area Size, Production, and Rice Productivity Based on Provinces |                     |                      |             |                     |                     |
|-------------------------|---|---------------------|----------------------|-------------|---------------------|---------------------|
|                         | Harvested Area Size (Ha)  |                     | Productivity (Ku/Ha) |             | Production (Ton)    |                     |
|                         | 2018  | 2019                | 2018                 | 2019        | 2018                | 2019                |
| Aceh                    | 329,515.8   | 310,012.5           | 56.5                 | 55.3        | 1,861,567.1         | 1,714,437.6         |
| North Sumatra           | 408,176.5   | 413,141.2           | 51.7                 | 50.3        | 2,108,284.7         | 2,078,901.6         |
| West Sumatra            | 313,050.8   | 311,671.2           | 47.4                 | 47.6        | 1,483,076.5         | 1,482,996.0         |
| Riau                    | 71,448.1  | 63,142.0            | 37.3                 | 36.6        | 266,375.5           | 230,874.0           |
| Jambi                   | 86,202.7  | 69,536.1            | 44.4                 | 44.6        | 383,045.7           | 309,932.7           |
| South Sumatra           | 581,574.6   | 539,316.5           | 51.5                 | 48.3        | 2,994,191.8         | 2,603,396.2         |
| Bengkulu                | 65,891.2  | 64,406.9            | 43.8                 | 46.0        | 288,810.5           | 296,472.1           |
| Lampung                 | 511,940.9   | 464,103.4           | 48.6                 | 46.6        | 2,488,641.9         | 2,164,089.3         |
| Bangka Belitung Islands | 17,233.6  | 17,087.8            | 26.5                 | 28.6        | 45,724.7            | 48,805.7            |
| Riau Islands            | 375.9   | 356.3               | 29.2                 | 32.3        | 1,097.0             | 1,150.8             |
| DKI Jakarta             | 673.4   | 622.6               | 72.8                 | 54.0        | 4,899.1             | 3,359.3             |
| West Java               | 1,707,253.8   | 1,578,835.7         | 56.5                 | 57.5        | 9,647,358.8         | 9,084,957.2         |
| Central Java            | 1,821,983.2   | 1,678,479.2         | 57.6                 | 57.5        | 10,499,588.2        | 9,655,654.0         |
| DI Yogyakarta           | 93,956.5  | 111,477.4           | 54.8                 | 47.9        | 514,935.5           | 533,477.4           |
| East Java               | 1,751,191.7   | 1,702,426.4         | 58.3                 | 56.3        | 10,203,213.2        | 9,580,933.9         |
| Banten                  | 344,836.1   | 303,731.8           | 48.9                 | 48.4        | 1,687,783.3         | 1,470,503.4         |
| Bali                    | 110,978.4   | 95,319.3            | 60.1                 | 60.8        | 667,069.1           | 579,320.5           |
| West Nusa Tenggara      | 289,242.6   | 281,666.0           | 50.5                 | 49.8        | 1,460,338.8         | 1,402,182.4         |
| East Nusa Tenggara      | 218,232.9   | 198,867.4           | 41.2                 | 40.8        | 899,935.9           | 811,724.2           |
| West Kalimantan         | 286,476.0   | 290,048.4           | 27.9                 | 29.2        | 799,715.2           | 847,875.1           |
| Central Kalimantan      | 147,571.7   | 146,144.5           | 34.9                 | 30.4        | 514,769.1           | 443,561.3           |
| South Kalimantan        | 323,091.2   | 356,246.0           | 41.1                 | 37.7        | 1,327,492.4         | 1,342,861.8         |
| East Kalimantan         | 64,961.2  | 69,707.8            | 40.5                 | 36.4        | 262,773.9           | 253,818.4           |
| North Kalimantan        | 13,707.0  | 10,294.7            | 32.9                 | 32.4        | 45,063.5            | 33,357.2            |
| North Sulawesi          | 70,352.6  | 62,020.4            | 46.5                 | 44.8        | 326,929.7           | 277,776.3           |
| Central Sulawesi        | 201,279.2   | 186,100.4           | 46.1                 | 45.4        | 926,978.7           | 844,904.3           |
| South Sulawesi          | 1,185,484.1   | 1,010,188.8         | 50.2                 | 50.0        | 5,952,616.5         | 5,054,167.0         |
| Southeast Sulawesi      | 136,673.8   | 132,343.9           | 39.4                 | 39.3        | 538,876.1           | 519,706.9           |
| Gorontalo               | 56,631.6  | 49,010.0            | 47.6                 | 47.2        | 269,540.4           | 231,211.1           |
| West Sulawesi           | 65,303.8  | 62,581.5            | 48.5                 | 48.0        | 316,478.4           | 300,142.2           |
| Maluku                  | 29,052.1  | 25,976.9            | 40.0                 | 37.8        | 116,228.9           | 98,254.8            |
| North Maluku            | 13,412.8  | 11,700.5            | 36.6                 | 32.4        | 49,047.1            | 37,945.6            |
| West Papua              | 7,767.0   | 7,192.2             | 32.2                 | 41.6        | 24,967.1            | 29,943.6            |
| Papua                   | 52,412.0  | 54,131.7            | 42.6                 | 43.5        | 223,119.4           | 235,339.5           |
| <b>INDONESIA</b>        | <b>11,377,934.4</b>   | <b>10,677,887.2</b> | <b>52.0</b>          | <b>51.1</b> | <b>59,200,533.7</b> | <b>54,604,033.3</b> |

Source: BPS (2020).

**Table A3:** Availability of Food Commodities (April 2020)

| No | Province                | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) |
|----|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|    |                         | Rice                  | Corn                  | Chilli                | Cayenne Pepper        | Shallot               | Garlic                | Sugar                 |
| 1  | Aceh                    | 93,606                | 26,724                | 1,022                 | 554                   | 25,596                | (434)                 | (4,713)               |
| 2  | North Sumatra           | 47,285                | 2,681                 | 6,974                 | (2,179)               | 21,734                | (2,091)               | 17,874                |
| 3  | West Sumatra            | 148,071               | 17,387                | 4,779                 | (326)                 | 31,008                | 1,477                 | (4,851)               |
| 4  | Riau                    | (28,659)              | (486)                 | (1,063)               | (1,432)               | 28,782                | (1,151)               | (6,080)               |
| 5  | Jambi                   | 14,999                | 1,082                 | 1,670                 | 99                    | 31,514                | (482)                 | (3,153)               |
| 6  | South Sumatra           | 283,735               | 23,191                | 423                   | (1,430)               | 34,876                | (1,625)               | 14,302                |
| 7  | Bengkulu                | 51,292                | 4,866                 | 4,953                 | 415                   | 26,022                | (264)                 | (1,744)               |
| 8  | Lampung                 | 301,493               | 186,019               | 916                   | (1,271)               | 30,848                | (1,911)               | 143,751               |
| 9  | Bangka Belitung Islands | (14,979)              | (1,107)               | (175)                 | (218)                 | 37,142                | (241)                 | (1,286)               |
| 10 | Riau Island             | (21,658)              | (1,544)               | (518)                 | (577)                 | 37,202                | (441)                 | (2,020)               |
| 11 | DKI Jakarta             | 12,695                | (8,016)               | (3,633)               | (3,373)               | 44,267                | (1,850)               | (9,251)               |
| 12 | West Java               | 1,100,608             | (934)                 | (1,616)               | (7,831)               | 41,542                | (5,088)               | (43,354)              |
| 13 | Central Java            | 872,953               | 19,456                | 11,931                | 2,806                 | 20,389                | 14,741                | (30,385)              |
| 14 | DI Yogyakarta           | 60,403                | 1,945                 | (564)                 | (646)                 | 23,647                | (916)                 | (3,428)               |
| 15 | East Java               | 1,533,697             | 103,137               | 148                   | 42,903                | (18,861)              | (7,400)               | (34,949)              |
| 16 | Banten                  | 529,020               | (126,751)             | (3,762)               | (3,771)               | 34,994                | (1,990)               | (11,279)              |
| 17 | Bali                    | 28,809                | (6,370)               | (810)                 | 1,377                 | 26,211                | (369)                 | (3,861)               |
| 18 | West Nusa Tenggara      | 250,807               | 596,954               | 348                   | 1,551                 | 32,364                | (67)                  | (4,571)               |
| 19 | East Nusa Tenggara      | 68,404                | 258,743               | (1,347)               | (878)                 | 47,140                | (486)                 | (4,823)               |
| 20 | West Kalimantan         | 85,087                | 2,265                 | (1,394)               | (578)                 | 56,012                | (763)                 | (4,465)               |
| 21 | Central Kalimantan      | 20,899                | 1,685                 | (661)                 | (98)                  | 40,595                | (548)                 | (2,350)               |
| 22 | South Kalimantan        | 89,999                | 16,286                | (424)                 | (78)                  | 32,655                | (666)                 | (3,734)               |
| 23 | East Kalimantan         | 19,653                | (1,833)               | (730)                 | (363)                 | 43,726                | (820)                 | (3,205)               |
| 24 | North Kalimantan        | (2,754)               | (27)                  | (109)                 | 8                     | 77,477                | (119)                 | (620)                 |
| 25 | North Sulawesi          | 23,287                | 21,517                | (268)                 | 1,265                 | 37,289                | 3,982                 | (2,198)               |
| 26 | Central Sulawesi        | 57,568                | 36,564                | (126)                 | 766                   | 42,558                | (385)                 | (2,696)               |
| 27 | South Sulawesi          | 673,567               | 130,472               | (1,280)               | (655)                 | 28,945                | (725)                 | (7,775)               |



| No           | Province           | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) | Surplus/deficit (Ton) |
|--------------|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|              |                    | Rice                  | Corn                  | Chilli                | Cayenne Pepper        | Shallot               | Garlic                | Sugar                 |
| 28           | Southeast Sulawesi | 26,298                | 30,976                | (445)                 | 10                    | 43,987                | (258)                 | (2,365)               |
| 29           | Gorontalo          | 12,316                | 107,644               | (368)                 | 725                   | 54,167                | (133)                 | 19,843                |
| 30           | West Sulawesi      | 18,262                | 29,866                | (164)                 | (71)                  | 24,265                | (174)                 | (1,205)               |
| 31           | Maluku             | (3,275)               | 2,851                 | (187)                 | 32                    | 59,851                | (321)                 | (1,563)               |
| 32           | North Maluku       | (10,972)              | 259                   | 153                   | 165                   | 69,758                | (168)                 | (1,095)               |
| 33           | West Papua         | (9,253)               | (602)                 | (167)                 | 20                    | 49,321                | (219)                 | (862)                 |
| 34           | Papua              | 20,853                | (707)                 | (865)                 | (568)                 | 90,439                | (710)                 | (2,968)               |
| <b>Total</b> |                    | <b>6,354,115</b>      | <b>1,474,192</b>      | <b>12,641</b>         | <b>26,353</b>         | <b>1,307,462</b>      | <b>(12,614)</b>       | <b>(11,079)</b>       |

Source: Coordinating Ministry for Economic Affairs (2020).

Note: Deficits highlighted with red shading.

**NOTES:**



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