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COVID-19: Economic and Food Security Implications (4th Edition)

WFP Vulnerability Analysis and Mapping (VAM) Unit - Indonesia Country Office

Contact: Saidamon.Bodamaev@wfp.org and Alika.Tuwo@wfp.org



Preface

Nine months since the first case of COVID-19 was identified in Indonesia, the effects of the pandemic are continuing to unfold. The scope of its impact on the economy, livelihoods, food security and nutrition is still evolving. Inequities related to employment, income earning, and gender are increasing.

Although positive signs of recovery have begun, full economic recovery is likely to take a long time. The lockdowns, that restricted non-essential socio-economic activities and movement in order to contain the virus, have limited the opportunities to work and earn an income, and restricted access to services. This has put pressure on the most vulnerable populations to afford basic needs. The decline in household purchasing power, due to job loss and income reduction has definitely affected access to food.

This fourth COVID Bulletin^[1] provides a snapshot of the pandemic's impact on the economy and food security in Indonesia including:

- Update on government social protection support for vulnerable groups to reduce impact of the crisis;
- Update on macroeconomic indicators in the third and early fourth quarter of 2020;
- Overview of recent trends in food security, including constraints in food supply chains;
- Review of gender inequities, highlighting the extent of socio-economic impacts faced by Indonesian women based on the latest UN Women survey and Government data;
- Analysis on availability of strategic food commodities and national and sub-national price trends.

The analysis team would like to thank Statistics Indonesia, the Ministry of National Development Planning (BAPPENAS), the Food Security Agency of the Ministry of Agriculture, the Ministry of Trade and the Indonesian Market Traders Association (IKAPPI) for providing additional data and information.

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Analysis Team:

WFP: Saidamon Bodamaev
Alika Dibyanta Tuwo
Kautsar F. Tandipanga

FAO: Dewi Fatmaningrum

UN Women: Sara Duerto Valero

^[1] Previous updates are available at: <https://www.wfp.org/countries/indonesia>

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Key Messages & Recommendations

Key Messages

Economic and Employment Trends

- **The Indonesian GDP continued to contract for a second quarter in a row due to the pandemic, signifying the first recession in two decades. In quarter 3, the national GDP shrank by 3.5% on a year- on-year basis.** In comparison to Q2 2020, the economy has grown by 4.7%, indicating a positive move towards recovery. On a quarter-to-quarter basis, all economic sectors have experienced positive growth. The Ministry of Finance estimated that the annual 2020 growth would be in the range of -0.6% to -1.7%, while the IMF revised its projections from -0.3% to -1.5%, the World Bank projected a deeper contraction at -2.0%, and the ADB revised its growth forecast from -1% to -2.2%.
- **The annual inflation rate increased to 1.6% in November 2020, recording an increase for the third consecutive month following consistent decline since March 2020. However, this may not necessarily indicate recovering purchasing power.** The increase has been primarily driven by rising food prices due to the start of the wet season. The recent relaxation of social and travel restrictions combined with the end-year holiday season are likely to have contributed to higher, albeit still low, consumer spending.
- **The employment status of over 29 million people, or 14% of the working-age population (15 – 64 age group) has been affected by the pandemic.** Of this total, 62% (18 million) are male. In August 2020, the national unemployment rate stood at 7%, (9.8 million unemployed workers). This represents an increase of 2.7 million persons in comparison to August 2019 which had an unemployment rate of 5.4%. Coupled with increasing underemployment (from 6.4% to 10.2%) and part-time employment (from 22.5% to 26%), as well as declining wages (-7%) between August 2019 and August 2020, the pandemic is likely to push more vulnerable people into poverty.
- **Both male and female employment were impacted by the pandemic, albeit in different ways.** Between February and August 2020 men were more likely to become unemployed, to temporarily not work, or to experience reduced working hours. Women were more likely to exit the labour force.
- **The agriculture sector has served as a buffer during the pandemic, by absorbing labour released by other sectors. However, wages in agriculture are among the lowest nationally, well below the minimum cost for decent monthly living.** The number of workers in the agriculture sector increased by 2.8 million between August 2019 and August 2020, while total employment in the country decreased.
- **Many of the new poor - resulting from COVID-19 impact - are likely to live in congested urban settings.** In the urban centres the working poor are employed in the informal sector. They are the most affected by large scale social and mobility restrictions and are excluded from employment based social protection systems. The World Bank estimated that for the first time since 2006, extreme poverty (based on USD 1.9 per day) is likely to increase from 2.7% in 2019 to 3% in 2020.

Key Messages & Recommendations

Key Messages

Impact of COVID-19 on Food Security

- **Following lower food prices during Q3 2020 due to weakened purchasing power, the prices of most strategic commodities have increased since October 2020, with the exception of rice.** Variability in price levels and movements across regions indicate weak spatial integration for some commodities, with Maluku and Papua generally reporting the highest price levels.
- **The World Bank's High Frequency Monitoring of COVID-19 Impacts** in Indonesia indicated that 22% of households reported an improvement in food supplies between May 2020 and August 2020. Food shortages were more likely to occur among households that experienced income shocks; **13% of households reported worsening food shortages.**
- **Supplies for 10 strategic food commodities - rice, eggs, chicken meat, beef, vegetable oil, sugar, shallots, garlic, chilies - are expected to meet domestic demand until the end of the year.** Beef and garlic supplies will be partially met through imports. Despite sufficient food availability at the national level, geographic variations in subnational production levels, and consumption patterns need to be accounted for. Timely imports and domestic redistribution from net producing to net consuming regions are needed to maintain food price stability.
- **A WFP and Government joint study revealed that challenges remain in the supply chain of nutritious yet highly perishable food items,** including due to poor post-harvest handling, limited availability and use of cold chain facilities, and high logistics costs. Additional bottlenecks have emerged due to movement restrictions aimed to limit the spread of the virus.
- **The current wet season, exacerbated by higher-than-normal rainfall in some areas due to La Niña, brings additional threats to food production,** by increasing the risk of harvest loss and damage during storage and distribution. This may result in supply shocks, food price volatility, and reduced income of farmers.
- **According to Statistics Indonesia (BPS) rice production in 2020 is expected to reach 31.6 million tons, exceeding 2019 levels by 1% (0.3 million tons).** The rice stock at the end of the year is expected to reach approximately 7 million tons, according to the Ministry of Agriculture. The continued La Niña effect may create challenge in reaching the target.
- **The newly passed Omnibus Law opens opportunities to stabilize domestic supplies and prices through relaxation of food imports.** It needs to be accompanied by policies to boost competitiveness of domestic food production, to ensure that both producers and consumers benefit from it.

Key Messages & Recommendations

Key Messages

Government Investments to Mitigate Pandemic Impact

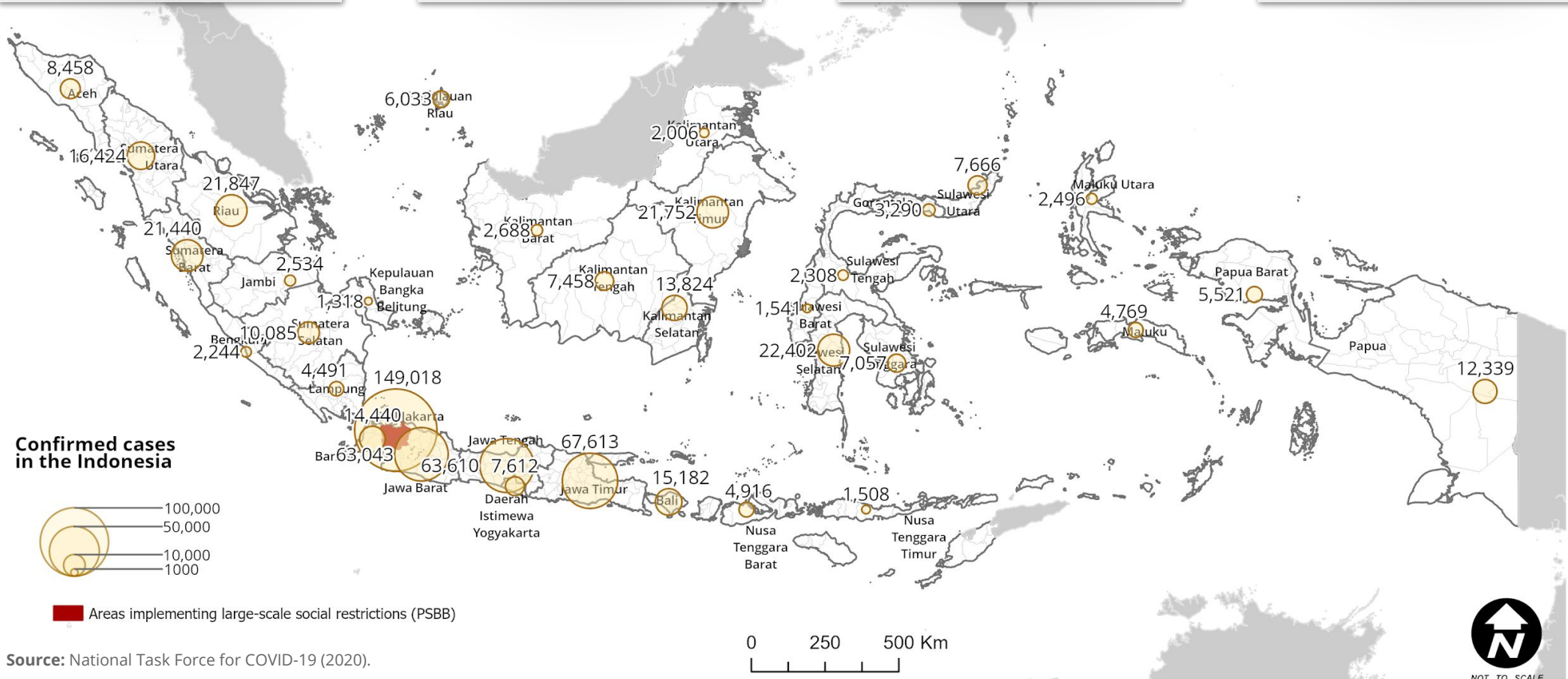
- **Although the Government has expanded public programme support, disbursement progress across sectors has been mixed.** The disbursement rate of the Government's National Economic Recovery (PEN) Programme (IDR 695.2 trillion or close to US\$50 billion) as of November remained at 62%, driven by insufficient health sector spending (41.2%). Yet, the disbursement rate for social protection programmes has reached 88.9%.
- **Coverage of existing government social protection programmes has expanded.** A recent World Bank survey revealed that **households in the Bottom 40% welfare status were hit the worst** by the economic impacts of the pandemic. Nearly 90% of the Bottom 40% have received at least one form of social assistance.
- **Several economic stimulus policies and programmes have been instituted.** This includes: granting fiscal stimulus, relaxing the payment due date for credits, and relaxing/simplifying agricultural imports. A specific supply chain fiscal stimulus package was introduced to improve cold storage infrastructure and accelerate the use of E-commerce platforms.

Key Messages & Recommendations

Recommendations

- **Invest in the use of near real time data to inform pandemic response decision making.** The investment in and utilization of real-time monitoring to track emerging impacts of the pandemic is critical to enable decision makers to design relevant interventions. Reducing the long-term impact of the pandemic requires evidence-based policies across multiple sectors. In addition to enhancing the Government's timely interventions in food markets accessible market information can guide farmers' production decisions.
- **Robust and inclusive social protection remains critical to mitigate the impact of the COVID-19 pandemic on access to food and levels of consumption.** Rising unemployment due to the pandemic is likely to continue resulting in reduced purchasing power, especially in urban settings. Social protection programmes have great potential to enhance purchasing capacities and reduce the risk of food insecurity and malnutrition among vulnerable groups. This is especially the case for workers in the informal sector currently not reached by existing social protection programmes.
- **The value of cash transfers in food assistance programmes should provide access to a diverse diet that meets minimum requirements of macro and micro nutrients; not only sufficient calories.** The design of the transfer modality must aim to ensure that targeted beneficiary groups have access to diverse, balanced and nutritious food. Utilization of data and monitoring with respect to food prices, particularly for micronutrient-rich fruits and vegetables should be ensured to inform policy and programme decisions.
- **Improving the functionality of commercial supply chains and domestic storage capacity has the potential to increase food availability and price stability, which becomes more important during times of crises, such as the current pandemic.** Expansion of innovative partnerships between sub-national governments and the private sector should be explored. The adoption of digital supply chains to better sync supply and demand, investing in cold chain infrastructure for distributing and storing perishable food products, as well as building up improved localised storage capacity to store excess supplies of rice, grains, etc. can facilitate the absorption and storage of produce as well as stabilize prices for producers and consumers.
- **Climate shocks have the potential to exacerbate pandemic impact. Thus, anticipatory actions to reduce and mitigate climate risks, including those resulting from La-Niña are recommended.** Such measures can address the impact of La Niña on food production and farmers' incomes. They also protect consumers, especially those who are already negatively impacted by the pandemic.
- **Regular monitoring of local level food stocks is necessary to ensure sufficient availability on a month-to-month basis.** The projected rice supply in 2020 is sufficient to meet national consumption demands due to favourable production and harvest conditions. However, information on all food stock levels should be made available to support the decision-making of supply chain actors. Identifying current bottlenecks is a first step to enhance the performance and sustainability of the country's food system and to build resilience in the face of disasters and crises. Ensuring smooth distribution of domestically produced food from producing regions to consumer areas is also important to prevent local deficits and reduce regional variations in food prices.

2. Development of COVID-19 Cases in Indonesia - 10 December 2020



Source: National Task Force for COVID-19 (2020).

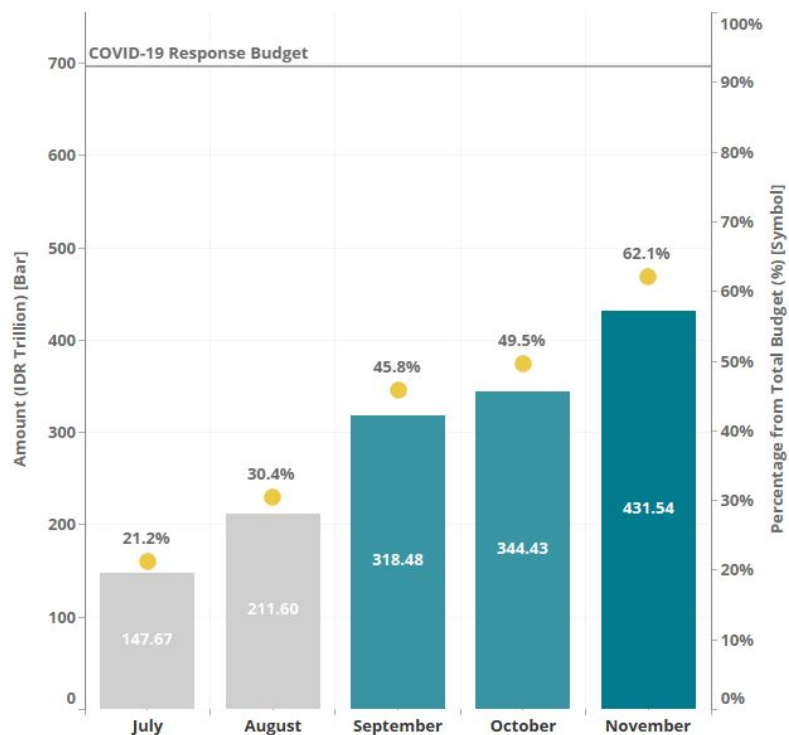
As of 10 December 2020, the number of confirmed COVID-19 cases in Indonesia reached 598,933 persons with the death toll at 18,336 people. The highest number registered in DKI Jakarta - 149,018 cases and the lowest in Bangka Belitung Islands - 1,318 cases. As of 8 November 2020, the COVID-19 fatality per confirmed case was recorded at 3.3%, higher than the global average at 2.47%^[1,2]. Since 19 August 2020, the time of the production of previous, the 3d Update, the number of confirmed cases increased by 4 times (453,988 new cases).

3. Updates on Government Response

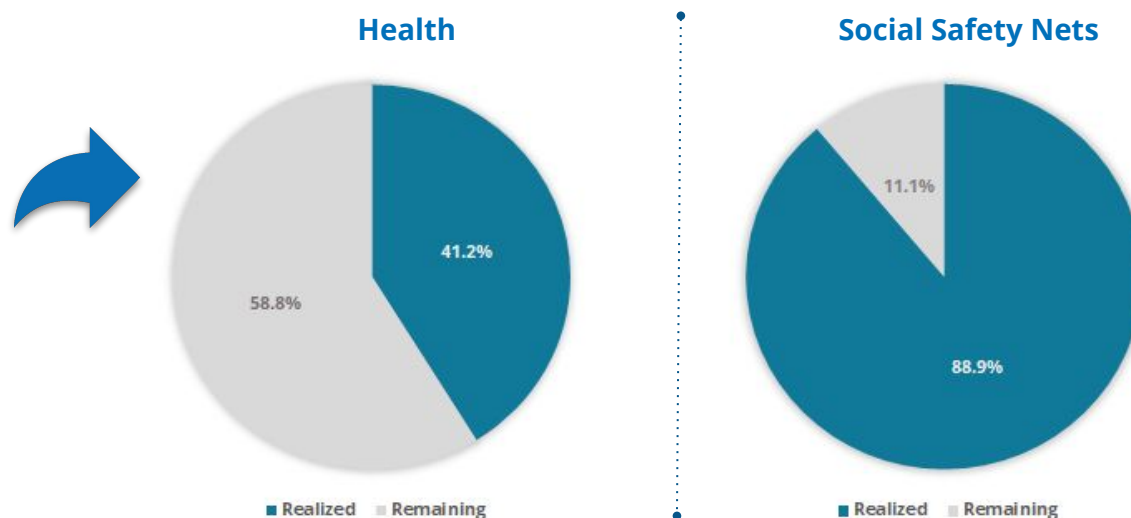
3.1. Fiscal Stimulus for Economic Recovery and Social Protection

COVID-19 Response Budget Realization Progress

Source: Ministry of Finance - Data as of 25 November 2020



The Government continued to mitigate the impact of COVID-19 through the National Economic Recovery (PEN) programme, including health sector interventions, social protection and safety net schemes, incentives for businesses and small and medium enterprises (SMEs), as well as budget allocations through line ministries and subnational governments. However, expenditure of government earmarked COVID funds (IDR 695.2 trillion/USD 49.6 billion [8]), as of November 2020 remained low at 62%.



Government expenditure was primarily driven by the expansion, and the increase in transfer value of social protection programmes including SEMBAKO and Program Keluarga Harapan (PKH). As of the end of November 2020, the disbursement rate for the social protection schemes was 88.9%, with disbursement for PKH and SEMBAKO reaching 98.2% and 95.3%, respectively[3].

The Ministry of Finance has identified challenges in scheme implementation including; targeting accuracy, benefit adequacy and suitability, and disbursement mechanisms [4]. The primary design concerns of the SEMBAKO and the Jabodetabek Food Assistance schemes is the inability of beneficiaries to select the types and quality of food products which they receive or purchase, and the time and place for accessing benefits. Infrastructure constraints complicate disbursement of PKH and SEMBAKO benefits in rural and remote areas resulting in time-delays and higher costs for rural beneficiaries in accessing benefits[5].

In November, utilization of health sector funds for the COVID-19 response remained low at 41.2%, as the total value of the package was increased by IDR 9.7 trillion for a total value of IDR 97.26 trillion (about USD 6.9 billion). Given the risk of undisbursed funds in 2020, the Ministry of Finance in November allocated the remaining health budget to its reserve fund for the national vaccination programme in 2021 [6].

The Government has allocated IDR 372.3 trillion (about USD 26.4 billion) to the 2021 National Economic Recovery programme[7].

3. Updates on Government Response

3.2. Agricultural and Food Policy in Response to the COVID-19 Pandemic (1)

Food System Activities Amidst the COVID-19 Pandemic



Potential Impacts of the Pandemic

- Disrupted supply chain
- Disrupted distribution
- Reduced purchasing power
- Unstable food prices
- Increased food losses and waste
- Reduced access of producers to market
- etc.



Supply Chain			
Importation		Distribution (Storage, Transport, Wholesaling/Retailing)	Consuming (Cooking & Eating)
Production (Planting, Fishing, Animal Breeding, Harvesting)	Processing and Packaging		
	Direct Supply Chain		
<ul style="list-style-type: none"> • Fiscal Stimulus • Relaxing payment due date for credit • Cash transfer, both conditional and unconditional (for farmers) • Improved farmers' access to agricultural inputs and finance • Relaxing/simplifying agricultural import • Local purchases of food for humanitarian purposes 	<ul style="list-style-type: none"> • Fiscal Stimulus • Keeping the nutritional/local supply chain moving for agricultural inputs and produce are exempt from restrictions • Improving of cold storage infrastructure for perishable food • Accelerating the uses of E-commerce platform • Developing local food hubs/reorganising food distribution in favour of local sources 	<ul style="list-style-type: none"> • Supporting household/community garden for fruits, vegetables, and herbs for food consumption (<i>Program Pekarangan Pangan Lestari</i>) • Cash transfer, both conditional and unconditional (Wage subsidy, <i>Program Keluarga Harapan/ Family Hope Program</i>) • Non-cash food transfer (SEBAKO Programme) 	

Source: WFP revisualization based on Bappenas presentation material, September 2020

In response, the Government instituted several policies and programmes including granting fiscal stimulus, relaxing payment due date for credits, and relaxing/simplifying agricultural imports. To provide direct supply chain support, a specific fiscal stimulus was provided to improve cold storage infrastructure and accelerate the use of E-commerce platforms.

To support consumers, the programmes provided cash and non-cash transfers and supported the community garden programme - Program Pekarangan Pangan Lestari (P2L) (*see the next page*).

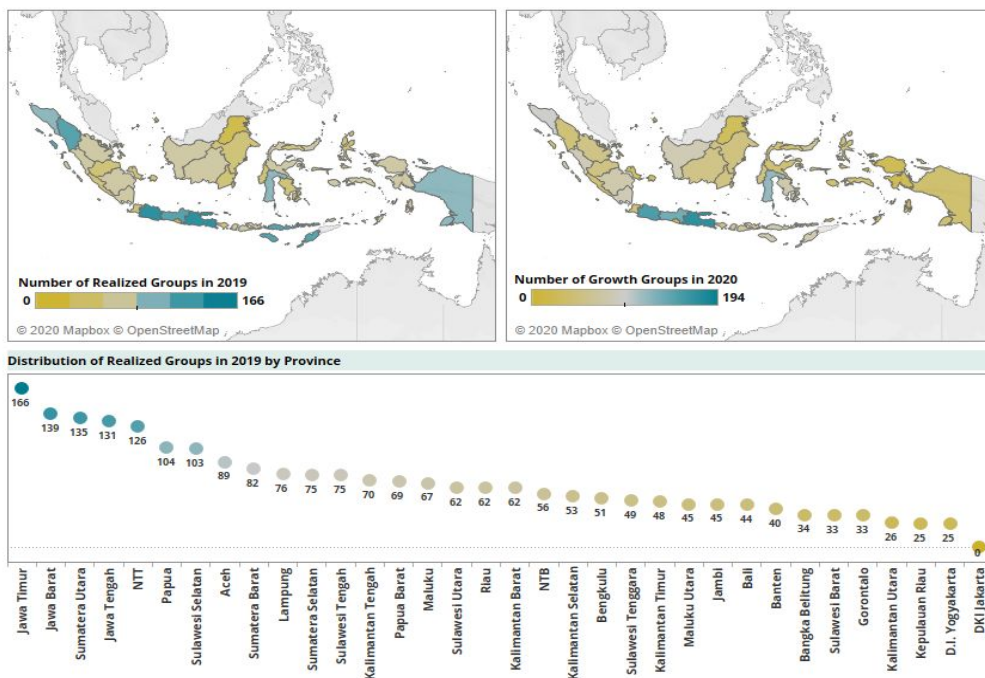
The cash and non-cash transfers aim to maintain the purchasing power, especially among the most vulnerable.

Although the Gross Domestic Product (GDP) from the agriculture sector continued to grow in the first three quarters of 2020, there were significant disruptions elsewhere in the food system. Decreased demand of goods and services for food and agricultural products, particularly from restaurants, catering services, and hotels, and disruptions in the supply chain were unavoidable. According to Statistics Indonesia (BPS) data, the GDP of transportation, storage, export, and import sectors has contracted in 2020 compared to the previous year. Refer to page 12 for detailed GDP information.

3. Updates on Government Response

3.2. Agricultural and Food Policy in Response to the COVID-19 Pandemic (2)

Spatial Distribution of P2L Program 2019-2020



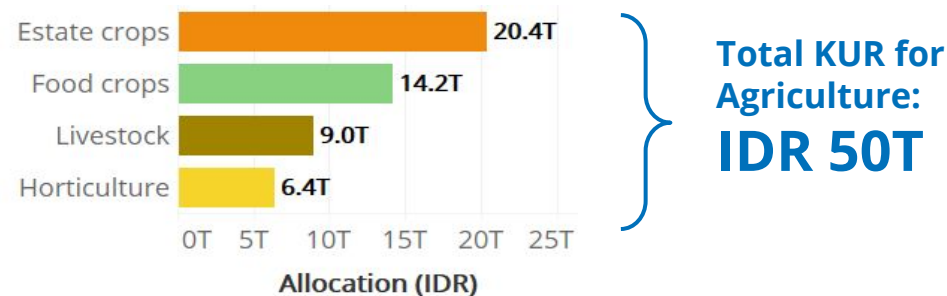
Source: Food Security Agency (BKP) - Ministry of Agriculture

The Ministry of Agriculture has also taken action to mitigate the impact of the COVID-19 pandemic on food security and food producers through, among others, the *Pekarangan Pangan Lestari* (P2L) and *Kredit Usaha Rakyat* (KUR) programmes.

Since 2010, the Sustainable Reserve Food Garden (P2L), managed by the National Food Security Agency (BKP) has provided support to improve household food security and income through family/community farming that utilizes gardens and non-productive lands. As part of the pandemic response the Government increased the targeted number of beneficiary groups from 2,300 to 3,876. Most of the new beneficiaries reside in East Java, West Java, and Central Java^[9,10]. The programme aims to support households' access to nutritious food and provide alternative employment opportunities for unemployed workers^[11]. Selected communities, women and youth farmer groups have received support to develop seedling nurseries, demonstration plots, planting of crops and post-harvest handling and marketing.

Source: Food Security Agency (BKP) - Ministry of Agriculture

Kredit Usaha Rakyat (KUR) Allocation by Sub-sectors, 2020 in IDR trillion



To boost the micro, small and medium businesses, the *Kredit Usaha Rakyat* (KUR) (People's Credit Business), provided loans to individual farmers, members of farmer Joint Business Groups (KUBE), Farmer Group Associations (Gapoktan), and agribusinesses. The financing facility mechanism supports farm enterprises in food crops, plantations, livestock, as well as other agricultural support services and product marketing. In 2020, the Government through the Ministry of Agriculture has allocated IDR 50 trillion (about USD 3.6 billion) for the different sub-sectors.

As of end of November 2020, the disbursement was 99.4% or IDR 49.7 trillion, disbursed to 1.79 million debtors. This is a significant increase compared to the previous year, where the range of agriculture sector allocation was between IDR 7 to 8 trillion^[12,13].

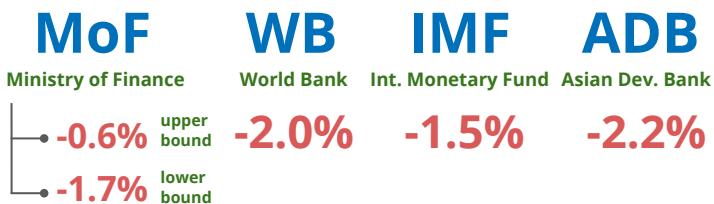
There are 45 financial institutions, including small-scale unit banks, supervised by the Financial Service Authority (OJK), and financial cooperatives, that can disburse credit at low-interest rates. The KUR beneficiaries can receive funds amounting from IDR 50 million to IDR 500 million (about USD 3,500 to 35,000), depending on the type of business, with an interest rates of 6% per year (decreased from previously 7%) up to five years. As a comparison, in October 2020 the market interest rate for working capital loans in commercial banks was 9.3% per year^[14], while for micro credit it was 12.1%^[15].

Source: Technical Guidance of KUR for Agriculture 2020, Ministry of Agriculture.

4. Updates on Macro-Economic Impacts

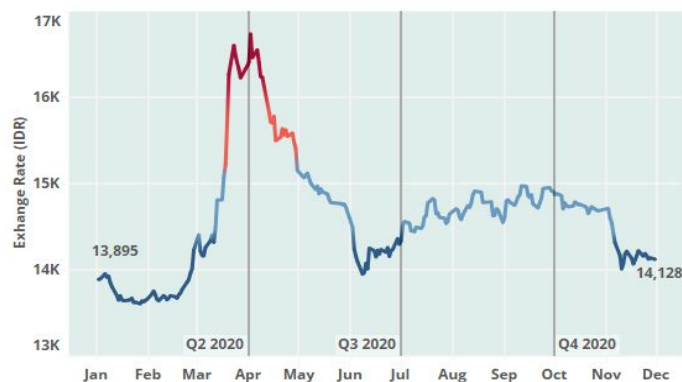
4.1. Growth Projections, Inflation and Exchange Rate

2020 GDP Growth Forecast [Updated]



The Ministry of Finance (MoF), the World Bank, the International Monetary Fund (IMF), and the Asian Development Bank (ADB) have revised their projection for Indonesia's GDP growth in 2020. MoF estimates the annual 2020 to be negative, in the range of -0.6% to -1.7%. The IMF revised its projections from -0.3% to -1.5%, the World Bank projects a deeper contraction at -2.0%, while the ADB revised its growth forecasts from -1% to -2.2%.

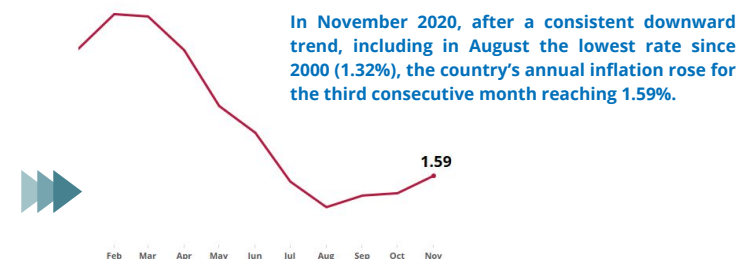
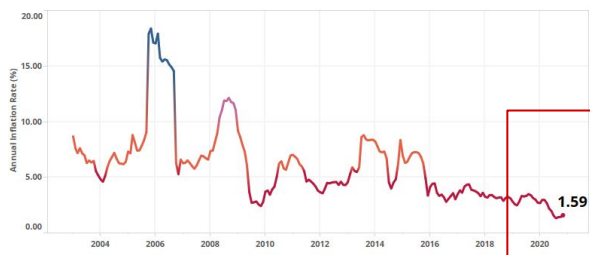
IDR-USD Exchange Rate: as of 30 November 2020



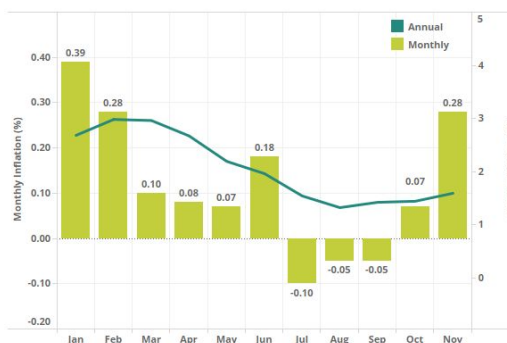
IDR to USD Exchange Rate

The Indonesian Rupiah (IDR) strengthened against the US Dollar (USD) in November 2020. A stronger currency is favourable for imports, making imported goods, including imported food items, more affordable for domestic consumers. As of end of November 2020, the exchange rate was recorded at IDR 14,128, approaching levels recorded in early January 2020.

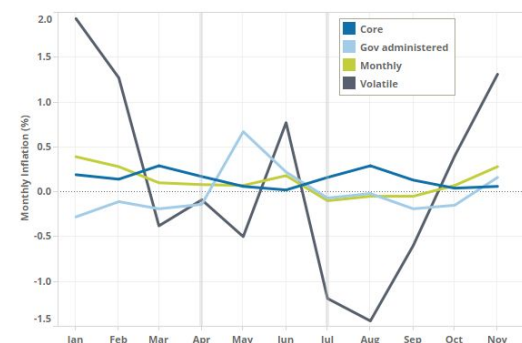
Annual Inflation Rate : Long-term Trend



2020 Annual and Monthly Inflation Rate



Monthly Inflation Rate by Inflation Type



Inflation Rate Development

The annual inflation in November 2020 reached 1.59%, recording the third consecutive increase after a constant decline since March 2020—mostly driven by increases in the prices of food, beverages, and tobacco. Monthly inflation was recorded at 0.28% in November 2020, up from 0.07% in October 2020, after months of deflation between July (-0.10%) to September 2020 (-0.05%). Core inflation, a better indicator of household purchasing power, was recorded at 1.67% in year-on-year (y-o-y) terms—a historical low—or 0.06% month-to-month. This is still much lower than the volatile foods component of inflation (1.3%), an indicator which is more sensitive to shocks due to harvests, natural disturbances, and developments in domestic and international food prices.

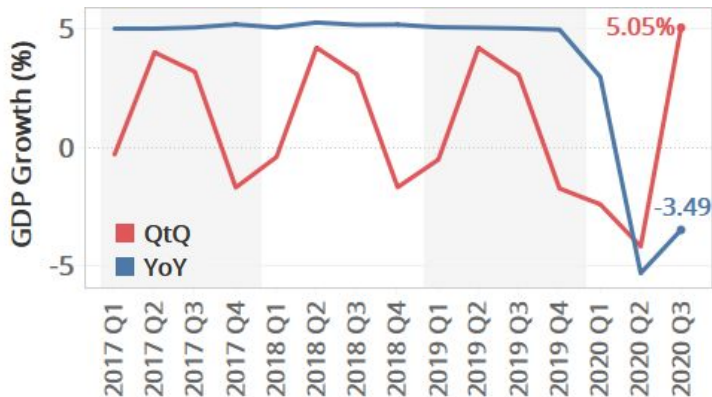
The Institute for Development of Economics and Finance (INDEF), has cautioned against interpreting the rising inflation in October and November 2020 as a signal of household purchasing power recovery. Rather it is an effect of rising food prices; a typical trend during high rainfall when supply and distribution channels are under pressure [16,17,18,19,20,21]. Yet the alleviation of COVID-19 social and mobility restrictions in recent months, coupled with recent and upcoming end-of-year holidays has likely encouraged greater consumer spending compared to previous months [22,23,24].

4. Updates on Macro-Economic Impacts

4.2. GDP Growth in Q3 2020

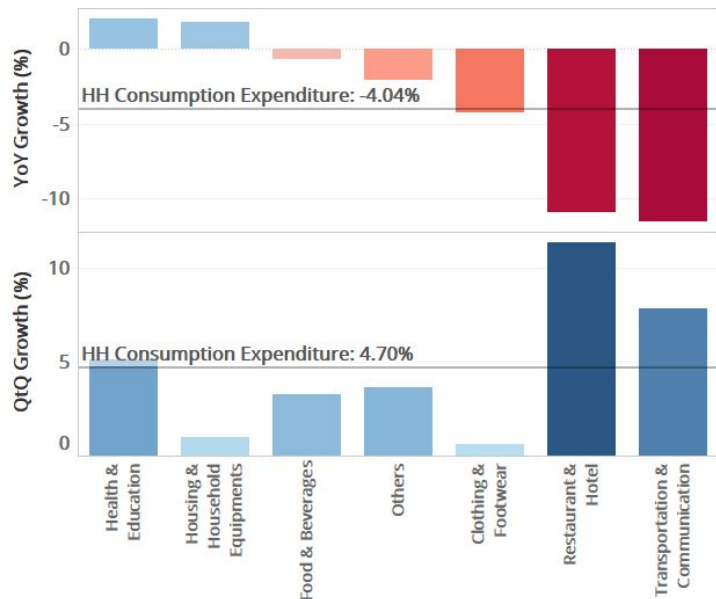
Quarterly GDP Growth (%)

Year-on-Year and Quarter-to-Quarter, 2017 Q1 - 2020 Q3



Household Consumption Expenditure Growth (%)

Year-on-Year and Quarter-to-Quarter, 2020 Q3



Source: Statistics Indonesia (2020)

The Indonesian GDP continued to contract for the second quarter in a row, signifying the first recession in two decades. The national GDP shrank by 3.49% on a year-on-year (Y-o-Y) basis in Q3 2020 but grew by 4.7% compared to Q2 2020 [25]. At 57.3% household consumption expenditure continued to contribute to the bulk of the Indonesian GDP. Although, household consumption shrank by 4.04% in Y-o-Y terms it showed improving trends by growing 4.7% compared to the previous quarter. In quarter-to-quarter (Q-t-Q) terms, all household spending components experienced positive growth, ranging from 0.6% (clothing and footwear) to 11.4% (restaurants and hotels). The primary factor driving this increase was the alleviation of COVID 19 related restrictions allowing business operations to continue with proper health protocols in place in an effort to sustain the economy [26,27,28].

In Q3 2020, 10 out of 17 economic sectors continued to contract compared to the previous year; but compared to the Q2 2020 all sectors recorded positive growth—a positive signal towards recovery.

Transportation and storage, along with accommodation, food, and beverages, were the worst-hit sectors. In comparison with Q3 2019 they shrank by 17% and 12%, respectively. However, both sectors also benefited from the loosening of social and movement restrictions, as the sectors recorded the highest growth compared to Q2 2020, at 24% and 15%, consecutively. As the pandemic persists - and with it the continuation of work-from-home and distance learning policies - the health and social services sector, along with the information and communication sector experienced the highest positive growth in Q3 2020, at 15% and 11% in Y-o-Y terms, respectively. The agricultural sector continued to grow by 2.2% Y-o-Y and 1% Q-t-Q as the country has started to enter the second major rice harvesting season of the year.

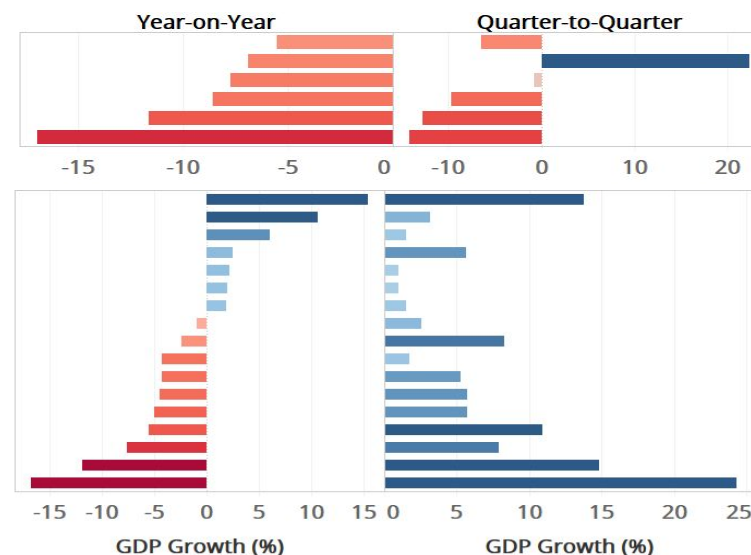
GDP Growth by Expenditure Category and Sector (%), 2020 Q3

Expenditure Category

- Household Consumption Expenditure
- Government Consumption Expenditure
- LNPRT Consumption Expenditure
- Gross Fixed Capital Formation
- Exports
- Imports

Sector

- Health and Social Services
- Information and Communication
- Water, Waste, and Recycling
- Education Services
- Agriculture, Forestry, and Fishery
- Real Estate
- Government, Defense, and Social Insurance
- Financial and Insurance Services
- Electricity and Gas
- Mining and Excavation
- Manufacturing Industry
- Construction
- Trade and Automotives
- Other Services
- Company Services
- Accommodation, Food, and Beverages
- Transportation and Storage



4. Updates on Macro-Economic Impacts

4.3. Labor and Employment

The COVID-19 pandemic has affected 29.1 million people, or 14.3% of the working-age population. The majority of this group reside in urban areas (69.6%) and are male (62%). Over 2.6 million people lost employment, 0.8 million exited the labour force, 1.8 million are temporarily not working and 24 million had to work with reduced working hours (National Labour Force Survey - SAKERNAS August 2020^[30]).

According to a World Bank survey, the employment situation in August 2020 has improved in comparison to May 2020. This indicates positive signals^[29]. In early May, a quarter of the households' main income earners stopped working, but by August more than 75% of those temporary unemployed resumed work, following the reopening of economic activities in June. Nonetheless, 6% of respondents who were working in May, stopped working in August. The dynamic situation and the re-tightening of social distancing measures in some areas in September may have had further affected employment.

Impact of the COVID-19 pandemic on the working-age population, August 2020



Key trends identified from SAKERNAS August 2020 include:

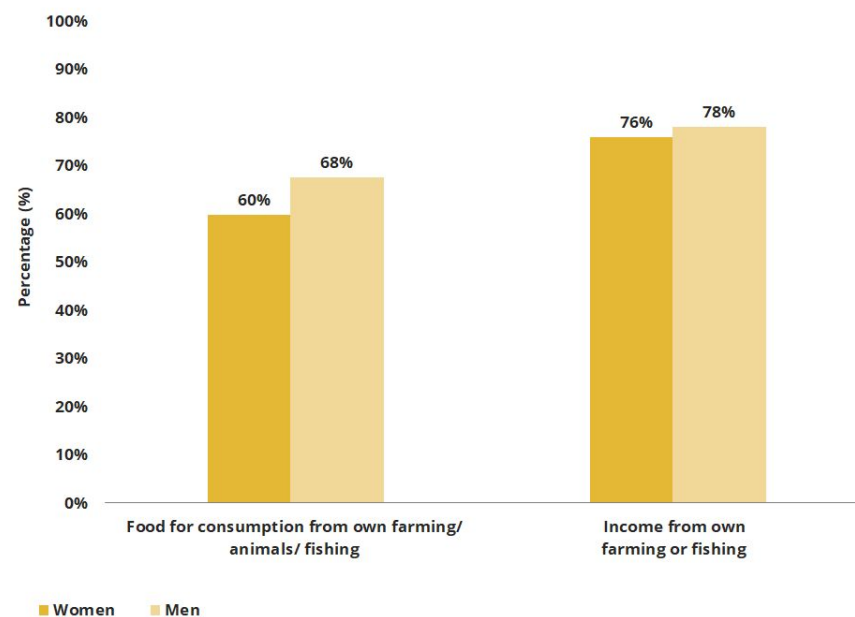
- Rising unemployment:** In August 2020, 7% of the working-age population was unemployed, corresponding to 9.8 million people, an increase of 2.7 million compared to the August 2019 figure of 7.1 million with an unemployment rate of 5.2%. Unemployment is rising faster in urban (from 6.3% to 9%) compared to rural areas (from 3.9% to 4.7%). Regionally, although DKI Jakarta reported the highest unemployment rate (11%), Bali reported the highest increase in unemployment, from 1.6% in August 2019 to 5.6% in August 2020 due to the negative impact of the pandemic on the tourism sector^[31].
- Rising informal employment:** The proportion of workers employed in the informal sector increased from 56% in August 2019 to 60.5% in August 2020. The sharpest increase was observed for unpaid/family workers. The decline in formal employment was primarily driven by the reduction of workers holding permanent labour/employee status.
- Shifts in main employment sector structure:** From August 2019 to August 2020 the proportion of total workers employed in agriculture increased from 27.5% to nearly 30%, translating to an increase by 2.8 million workers. During the same period the proportion of persons employed in the manufacturing sector slightly decreased from 14.3% to 13.6%, equivalent to a reduction by 1.7 million workers^[32].
- Reductions in working hours:** The proportion of full-time workers (working at least 35 hours per week) declined from 71% in August 2019 to 63% in August 2020. Concurrently, the proportion of part-time workers increased from 23% to 26%, while the proportion of underemployed workers increased from 6% to 10%. In total, 24 million workers experienced reduced working hours due to the pandemic.
- Declining wages:** The average monthly wage for both permanent labourers/employees and casual workers in August 2020 was IDR 2.5 million, nearly 7% lower than in August 2019. At IDR 2.1 million, the average wage for female workers was 19% lower compared to their male counterparts (IDR 2.6 million). Men however faced a larger decline in wages (-7.6%) compared to women (-5.2%). Bali experienced the sharpest decline in wages (-18%). Five provinces, including Bali, dropped below the provincial minimum wage^[33]. In sectoral terms, the accommodation, food and beverages sector suffered the worst decline in percentage terms (-17%)^[34].
- Decreased mobility:** The number of commuting workers decreased by 21%, from 8.9 million to 7 million workers between August 2019 and August 2020. The largest decline was observed for workers commuting to Kota Bandung (-33%), North Jakarta (-32%), and South Jakarta (-31%).

5. Gendered impacts of the pandemic in Indonesia (1)

New data released by UN Women^[i] and Statistics Indonesia^[ii] highlights the socio-economic impacts of the pandemic on Indonesian women.

- **The pandemic has back-slided the progress achieved on women's employment rates:** Prior to the pandemic, the female unemployment rate of 5.2% was at its lowest in the past 5 years (SAKERNAS August 2019). Due to the impacts of the pandemic, this rate increased to 6.5% (SAKERNAS August 2020), the highest since 2014. As a comparison, the male unemployment rate increased from 5.2% to 7.5% during the same period.
- **The pandemic has forced Indonesian women to take up part-time jobs.** SAKERNAS August 2020 data shows that female underemployment have increased by 3 percentage point to 9.3% compared to August 2019, while part-time employment have increased by 3.8 percentage point to 36% – highlighting how more female workers are participating in the job market by working part time.
- **Women employed in the informal sector have been disproportionately affected by the pandemic.** In August 2020, 65% of female workers and 57% of male workers were employed in the informal sector. The proportions of workers employed in the informal sector for each gender have both increased by 4.5 percentage points compared to figures in August 2019. Informal workers have little protection against jobs dismissal, are not eligible for paid sick leave, and do not access employment-based social protection programmes. This leaves female workers vulnerable to job loss, and/or decreased income in the context of economic uncertainties brought by the pandemic. Research conducted by UN Women confirmed that among female respondents 30% reported job loss and 38% had their working hours decreased.
- **A significant share of both men and women reported reductions in food for consumption and income derived from own agricultural production.** The UN Women survey found that a greater proportion of male respondents reported reductions in food for consumption (68%) and income (78%) from own farming/animals/fishing, compared to their female counterparts (60% and 76%, respectively). However, differences in intra-household access to a diverse and nutritious diet, often disproportionately disfavour women^[35], raising concerns about their food security especially amidst the pandemic.

Proportion of people who noted decreases in food and income from farming and fishing since the spread of COVID-19, by sex (percentage)



Source: Rapid Gender Assessment Survey on the Consequences of COVID-19 in Indonesia, UN Women (2020)

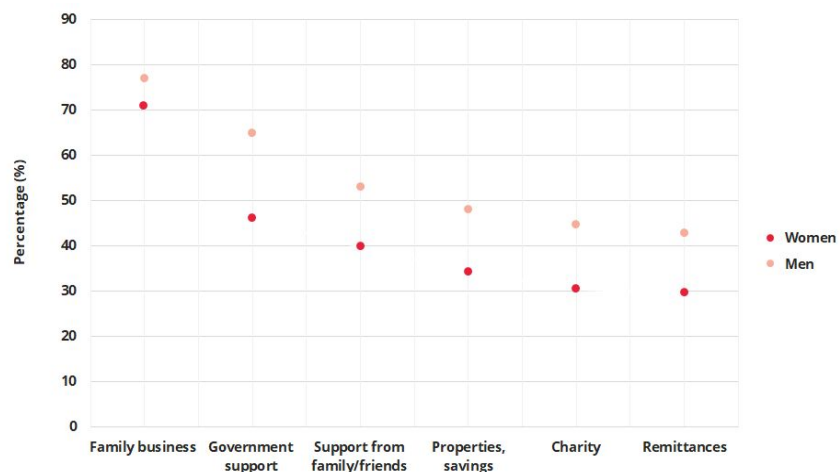
Footnote:

[i] [Rapid Gender Assessment Survey on the Consequences of COVID-19 in Indonesia, UN Women \(2020\)](#)

[ii] [SAKERNAS August 2020, Statistics Indonesia \(2020\)](#)

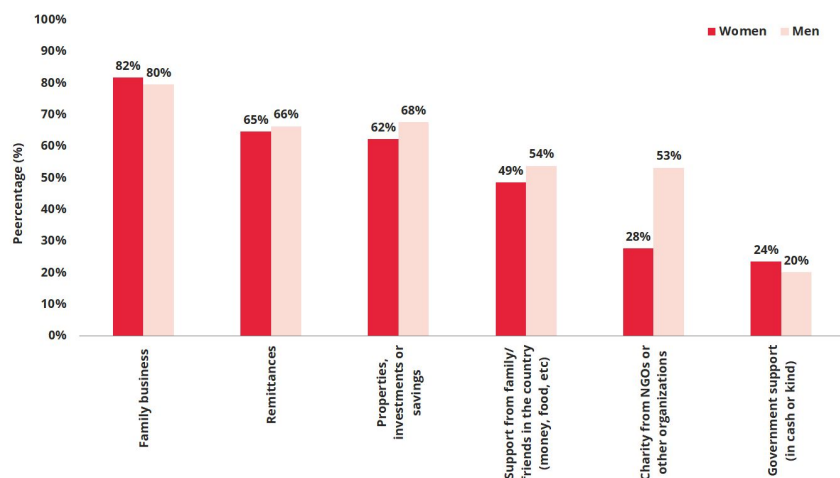
5. Gendered impacts of the pandemic in Indonesia (2)

Proportion of people who use different sources of income, by sex and type of resource (percentage)



Source: Rapid Gender Assessment Survey on the Consequences of COVID-19 in Indonesia, UN Women (2020)

Proportion of people who noted decreases in income since the spread of COVID-19, by sex and type of resource (percentage)



Source: Rapid Gender Assessment Survey on the Consequences of COVID-19 in Indonesia, UN Women (2020)

Women have experienced reductions in income across multiple sources during the pandemic. UN Women's survey has found that the pandemic has impacted the two most common sources of income for women in Indonesia—family businesses and government support. 82% women reported a decline in income from family businesses as compared to 80% men and 24% women reported reduced income from Government support, as compared to only 20% men.

Although higher proportions of men than women reported income reduction from other income sources (such as farming and fishing, remittances, relatives, and charity), the survey also found that men generally have access to a wider range of income sources compared to women.

The gendered impacts of the pandemic on employment are nuanced. In absolute terms, more working-aged men have been impacted than women in terms of their employment. However, when accounting for labour force participation by gender, the differences become smaller. Compared to the size of the respective labour forces in February 2020, 21.6% of men were impacted by the pandemic, compared to 20.4% of women, between February and August 2020.

Although a greater proportion of men (with respect to the labour force) experienced unemployment, temporarily not working, and reduced working hours, a larger proportion of women exited the labour force to take care of their households, study, or for other purposes.

SAKERNAS August 2020 data, however, indicated that the labour force participation rate of women was higher than ever, at 53.2%—an increase from 52% in August 2019. Comparatively, the labour force participation rate of men slightly declined from 83% to 82% over the same period. However, as previously mentioned, the trend was accompanied by an increase in women's participation in the informal job sector, raising concerns on the quality of jobs that were accessible to new female entrants to the labour force—taking into consideration lower female wages on average compared to those received by male counterparts .

6. Updates on Global Food Security Trends



Despite cuts to the 2020 global cereal production and stock forecasts, the expected levels are at an all-time high and are sufficient to meet global demand. FAO has amended the production forecast for 2020 to 2,742 million tons, 1.3% higher than the 2019 output^[36]. Figures for all major cereals had been revised downwards, however the level for rice is still at record-high levels of 510.3 million tons. World cereal utilization in 2020/21 is estimated to reach 2,744 million tons, while expected stocks at the close of the 2020/21 season have been corrected to 866.4 million tons, or 0.7% lower compared to the opening level. Given these figures, global stocks-to-use ratio for 2020/21 will be at 30.7%, a five-year low, but still a relatively comfortable level.

Global food prices have risen sharply in November 2020, reaching highest levels in nearly six years, driven primarily by increases in vegetable oil prices. In November 2020, the FAO Food Price Index increased by 3.9% compared to October 2020, and is 6.5% higher compared to November 2019—the largest month-on-month increase since July 2012 and highest overall level since December 2014^[37]. Oil palm prices have been on the rise for the sixth consecutive month, due to recovering global demand coupled by shrinking stock levels and lower than customary production prospects of major growers, including Malaysia and Indonesia^[38,39]. Increasing sugar prices reflect concerns over a global production shortfall due to unfavourable weather conditions. Most major cereals have experienced price increases, largely due to concerns of production prospects, except for rice, which has remained stable. In October 2020, at USD 0.74/kg, domestic wholesale rice prices in Indonesia and the Philippines were between 33% (Thailand, Myanmar, and Cambodia) to 79% (China) higher compared to other countries in the region.

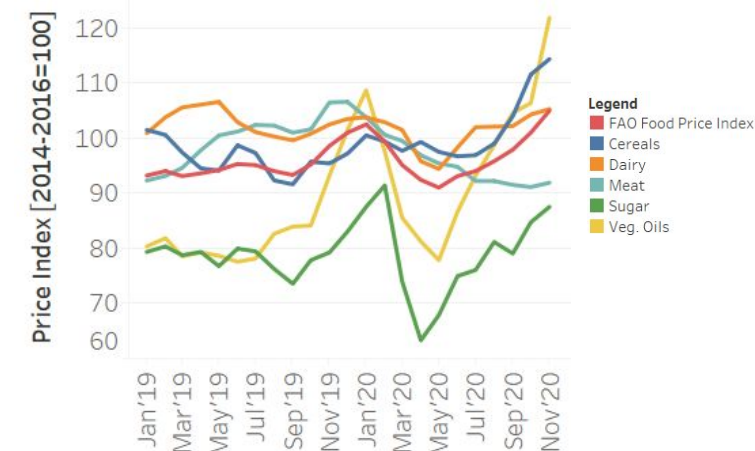


Most countries have lifted restrictions on food exports that had been imposed earlier due to the pandemic. As an effort to ensure domestic supplies, many countries had imposed restrictions on food exports in the beginning of the COVID-19 pandemic. As of 21 October 2020, there were no more countries imposing export restrictions, according to the IFPRI Export Restriction Tracker^[40]. Overall, 62 jurisdictions were reported to execute a total of 62 food and agricultural export controls since the beginning of 2020^[41]. The World Bank indicates that export restrictions may threaten food security in importing countries, and are not necessary given adequate global supplies^[42].

Income and distribution shocks due to the COVID-19 pandemic are expected to increase the number of the world's food insecure. Due to the economic downturn resulting from the pandemic, poor and vulnerable people have difficulties in affording food. [The State of Food Insecurity in the World \(SOFI\) 2020](#) report suggests that the COVID-19 pandemic may lead to an increase by 83 million to 132 million undernourished people worldwide in 2020. The World Bank also estimates that the number of extreme poor (i.e. those living under the USD 1.90/day poverty line) is likely to increase by 88 million to 115 million globally in 2020, contributing to a total of up to 150 million additional extremely poor in 2021. The new poor will likely be concentrated in countries with high pre-existing poverty rates, however middle-income countries will also be significantly affected^[43].

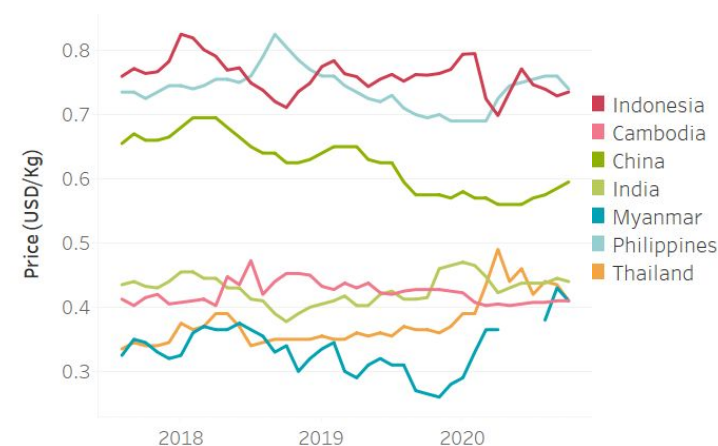


FAO Global Food Price Index
January 2019 - November 2020



Source: FAO Global Food Price Index (2020).

Wholesale rice prices in multiple countries
August 2017 - October 2020



Source: WFP calculation based on data from FAO GIEWS and PIHPS, Central Bank of Indonesia.

7. Food Availability

7.1. Food Trade

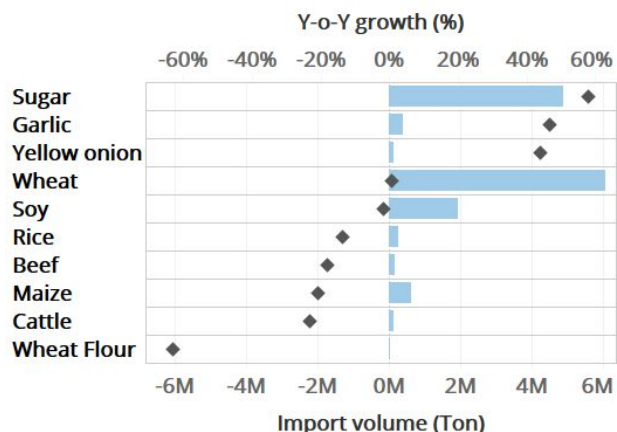
Trend in Indonesia food trade

January - September, 2019 - 2020



Import trends of selected food commodities

January - September, 2019 - 2020



Source: WFP calculation based on trade data from Statistics Indonesia (2020).

Recent trends in Indonesia food and agricultural trade

Food and agricultural trade in Indonesia continue to be more resilient compared to overall trade amidst the COVID-19 pandemic, in alignment with global trends^[44].

Exports dominated Indonesia's agriculture and food trade between January and September 2020, amounting to approximately USD 23.2 billion or 9.8% higher compared to the same period last year, faring much better compared to the country's overall exports, which contracted by 5.8%. Conversely, at USD 10.9 billion, cumulative agricultural and food imports up to September 2020 declined mildly by 1.1%, compared to January-September 2019 levels. As a comparison, the country's overall imports declined by 18%. Cereal imports comprised the bulk (21%) of agricultural and food imports between January and September 2020 but also experienced the largest decline in absolute value (USD 2.3 million) compared to the same period in 2019. More specifically, the imported volume for maize, rice, and wheat decreased by 21%, 14%, and 0.6%, while wheat flour imports declined by 63%. In fact, most traditionally imported commodities experienced a decline in import volume compared to the previous year, with the exception of sugar, garlic, and yellow onion, for which imports increased by 58%, 47%, and 44%, consecutively, due to government efforts to address price hikes of these commodities in Q1 and Q2 2020. In the first half of 2020, as reported in prior editions of this bulletin, supply chain disruptions have made imports and domestic distribution from ports to markets more challenging due to mobility restrictions to limit the spread of the pandemic.

The implications of the Omnibus Law on food and agricultural trade

The recently passed Omnibus Law recognizes food imports as a legitimate source to meet national food demand, together with domestic food production.

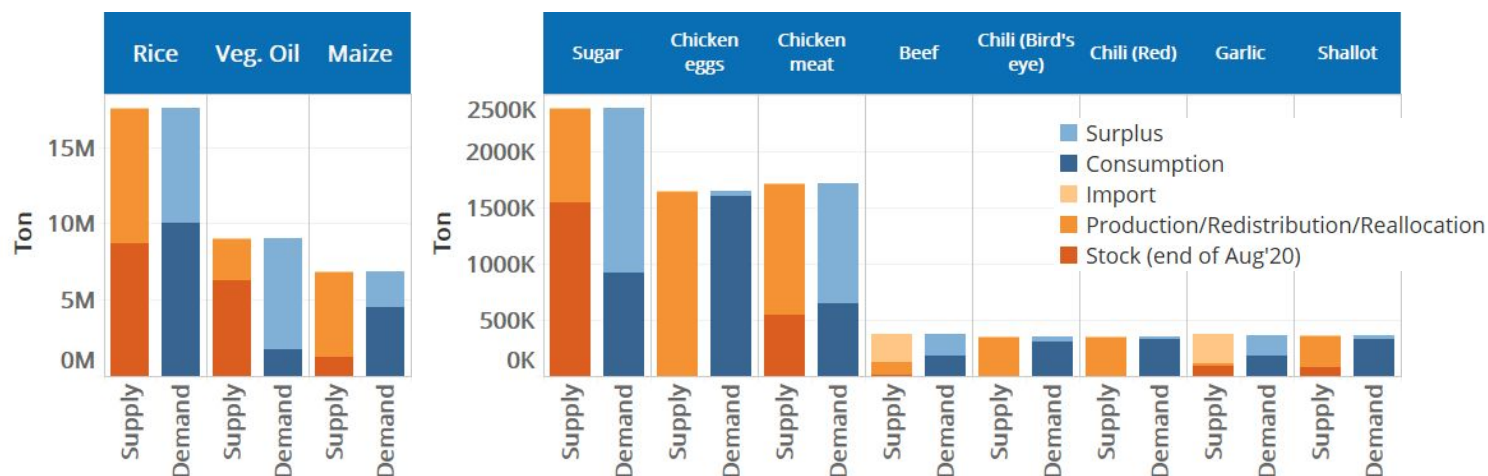
In October 2020, the Government of Indonesia passed the Law No. 11/2020 on Job Creation, or more widely known as the Omnibus Law. The new Law introduces several changes; among others, it removes prior provisions which stipulated that food imports could only be taking place in off-harvest season and when local production and national reserves are insufficient to fulfil domestic demand. Although domestic supplies are no longer explicitly prioritised, the new Law puts in place several tariff and non-tariff trade measures to protect domestic food producers and micro and small food actors^[45]. According to the Center of Indonesia Policy Studies (CIPS)^[46], timely food imports may help stabilize supplies as well as contribute to lower and less volatile food prices, particularly as the prices of certain food commodities, including rice, in Indonesia are higher than global prices, hindering the ability of poor groups - including two-thirds of smallholder farmers who are net food buyers - to afford a healthy and nutritious diet. This would be of particular importance given that the pandemic had reduced household income for many^[47]. The CIPS argues that boosting domestic agricultural productivity would be a preferable strategy to reduce reliance on imports compared to imposing import restrictions. The Omnibus Law has also relaxed regulations on seed imports, which could improve local production. However, the relaxation of food and agricultural imports should be accompanied by a more transparent and simplified licensing procedure, as well as policies to improve the competitiveness of the Indonesian agriculture.

7. Food Availability

7.2. Food Balance of Selected Commodities

Estimated national balance for selected food commodities

September - December 2020



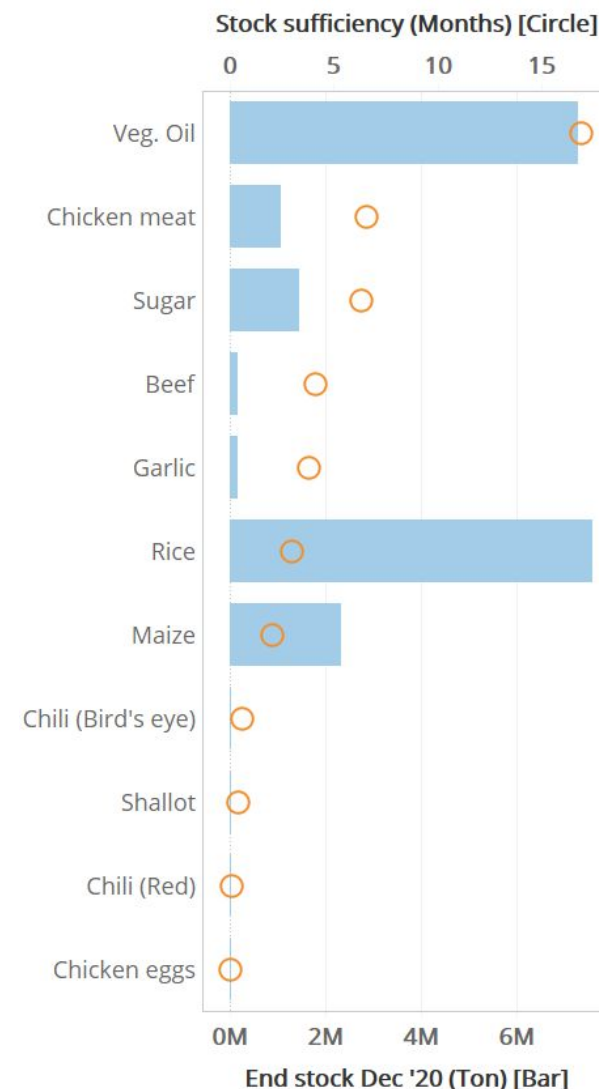
Supplies for most of the major food items are expected to meet domestic demand until the end of the year, although the government has indicated that imports would be needed for beef and garlic. Between September and December 2020, domestic production and stock levels of beef are expected to reach 130,000 tons or 71% of expected beef consumption. During this period domestic supplies of garlic are expected to reach 111,000 tons or 60% of estimated consumption. To meet the demand, 241,500 tons of beef imports and 266,000 tons of garlic imports are planned to take place during the period, according to the Ministry of Agriculture.

End-of-year stock levels should be sufficient to meet a few additional months of consumption, except for perishable food items which have short shelf-lives. The end-of-year stock for vegetable oil should be sufficient to last an additional 17 months of consumption; chicken meat and sugar stocks are enough to cover 6.6 and 6.2 months of consumption, respectively, while rice stocks are adequate to last an additional 2.8 months. Closer attention should be given to perishables, such as shallots, chilis, and chicken eggs, which have short shelf lives and hence cannot be stored for long, leaving these items at higher risk for price volatility in case of supply shocks, which would negatively impact consumers who are currently already experiencing reduced income due to the ongoing pandemic.

Despite sufficient food availability at the national level, variations in sub-national production levels and cycles as well as consumption patterns need to be accounted for. Timely imports and domestic redistribution from net producing to net consuming regions would need to be ensured to maintain food availability and price stability at the local level.

Estimated stock sufficiency for consumption

End stock December 2020



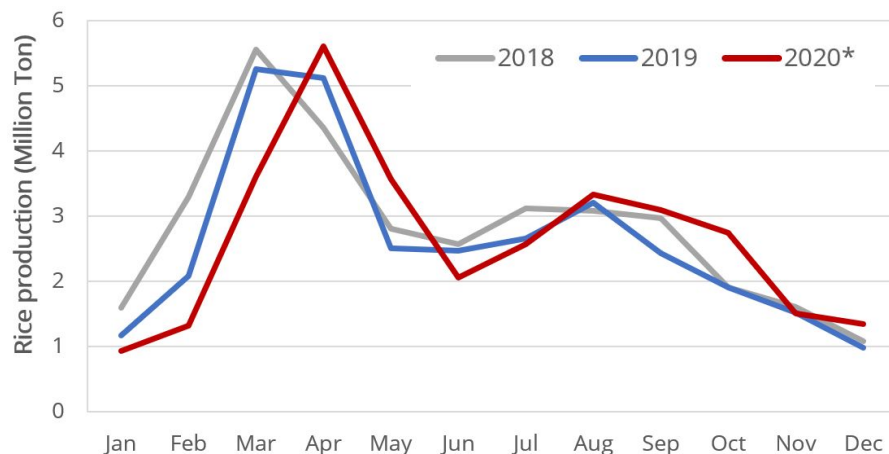
Source: WFP calculation based on the National Food Availability Prognosis (September-December 2020), Ministry of Agriculture (2020).

7. Food Availability

7.3. Rice production

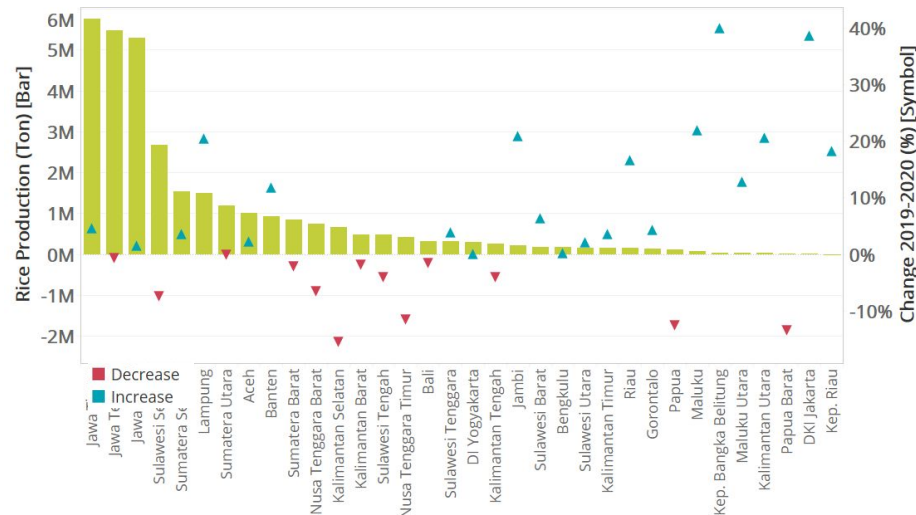
Indonesia's monthly rice production (2018-2020^[iii])

in million tons



Rice production by province (2020)

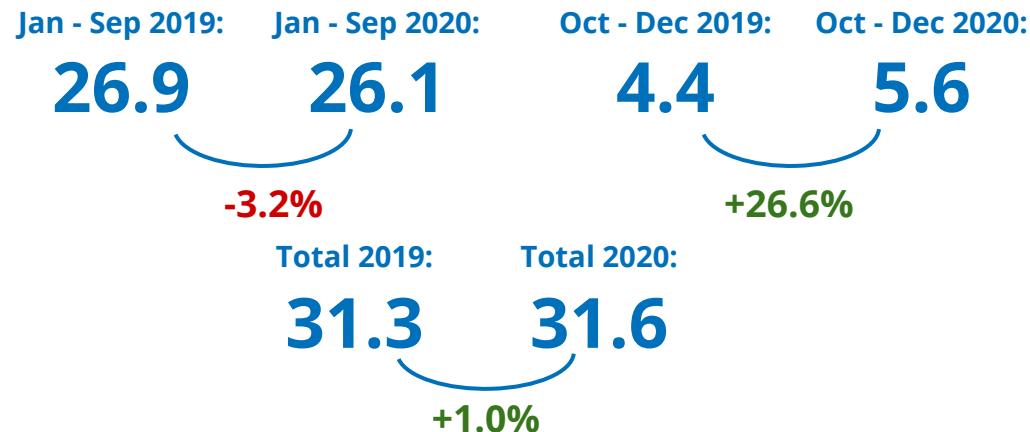
in million tons



Source: Statistics Indonesia (2020)

Footnote: [iii] Rice production figures for September 2020 is still temporary figure, while October to December 2020 figures are production potential figures, according to Statistics Indonesia.

Rice production (2019-2020), in million tons



Indonesia's rice production in 2020 is expected to reach 31.6 million tons, exceeding 2019 levels by 1% (0.3 million tons)^[48]. Although rice production between January and September 2020 (26.1 million tons) is expected to be 3.2% lower than the same period last year, the October-December 2020 expected production (5.6 million tons) will more than offset the earlier shortfalls. Statistics Indonesia cautions that the ongoing La Niña effects may threaten the attainment of these figures. East Java, Central Java, West Java, and South Sulawesi remain the country's main rice producers, contributing to 61% of national production, although production in South Sulawesi is projected to decrease by 7% compared to 2019 due to heavy rainfall and floods^[49].

To boost domestic rice production during the pandemic, the Ministry of Agriculture has made efforts to accelerate rice planting through the Acceleration of Land Processes and Rice Planting Movement (GPOT), along with the provision of financial assistance for seedlings, agricultural machinery, People's Business Credit (KUR), agricultural insurance, and extension services^[50].

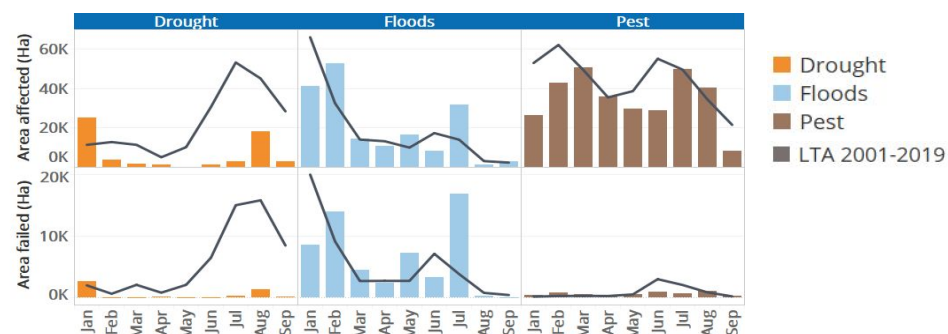
End-of-year stocks for rice are expected to reach approximately 7 million tons, according to the Ministry of Agriculture^[51]. This amount would be sufficient to cover 2.8 months of additional consumption. However, Statistics Indonesia noted that regional differences in rice production patterns and timelines need to be considered and that rice stocks need to be evaluated based on periodical figures (i.e. monthly) instead of cumulative annual figures to ensure sufficient local availability on a month-to-month basis^[52].

7. Food Availability

7.4. Hazards Affecting Rice Cultivation

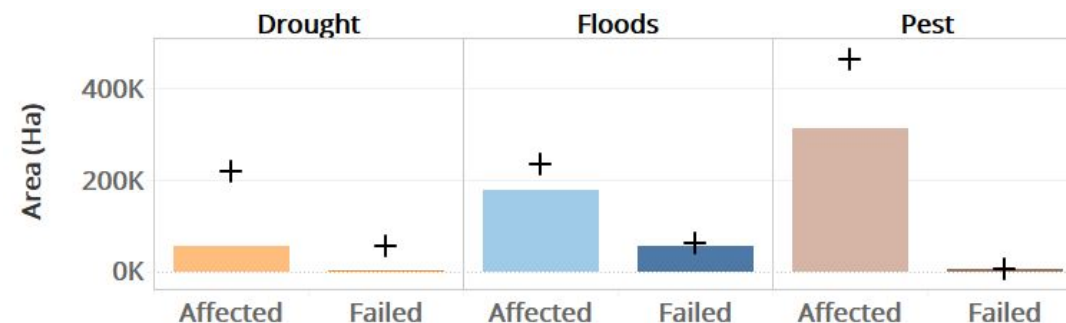
Monthly area of paddy crop affected and failed by Hazard

January - September, 2020 vs Long-Term Average (LTA) 2001 - 2019



Area of paddy crop affected and failed by Hazard

January - September 2020 vs LTA 2001 - 2019



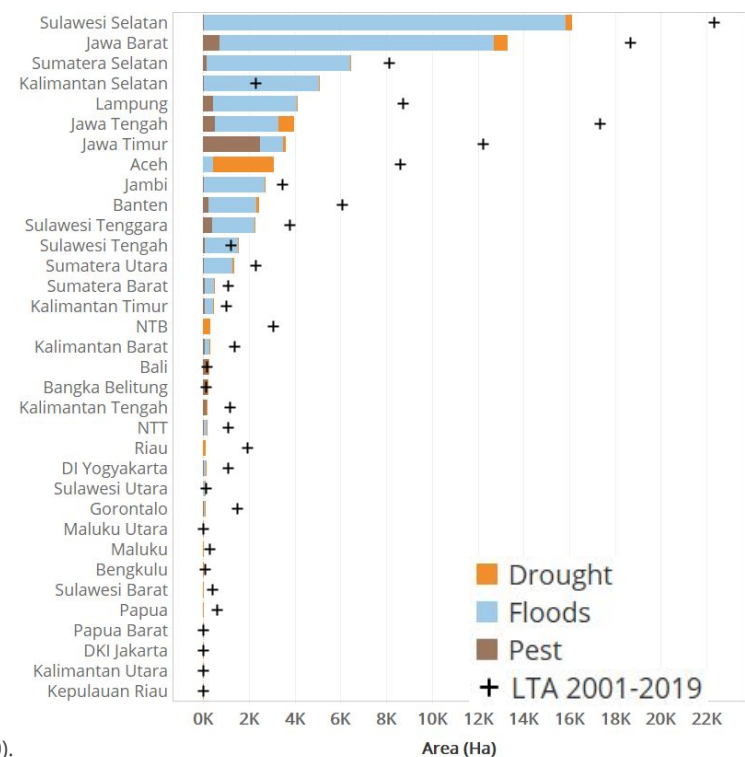
Between January to September 2020, the percentage of paddy field area experiencing crop failure or affected by droughts, floods, and pests decreased compared to the 2001-2019 long-term average (LTA). During the period, 550,200 ha of paddy fields were affected by either drought, floods, or pests; of which 12.5% (68,600 ha) suffered from crop failure. Compared to the LTA, the total area affected by these hazards was 40% lower, whereas total area suffering from crop failure was 47% lower.

The decline was primarily driven by the reduction in area affected (-74%) or failed (-91%) due to drought, which can be explained by higher rainfalls during the dry season in 2020. However, in comparison to the LTA, the areas affected by floods and pests decreased by 23% and 33% respectively. As a comparison, drought events were more rampant in the 2019 dry season where many rice producing regions experienced lower than usual rainfall.

The Government has cautioned that the ongoing La Niña, which will be reaching its peak in December 2020 - January 2021, may threaten agriculture and rice production. According to the Meteorological, Climatological, and Geophysics Agency (BMKG), the La Niña effect might lead to a 20-40% increase in monthly accumulated rainfall, increasing the likelihood of floods and landslides. However, the impact of La Niña varies across the geography of Indonesia. The Government has emphasized the importance of disseminating early-warning weather and disaster information to regions for faster response and to reduce losses. An insurance scheme for crops and fishery to anticipate potential losses arising from disasters is reported to be under development [53,54,55,56].

Crop failure by Province

January - September 2020 vs LTA



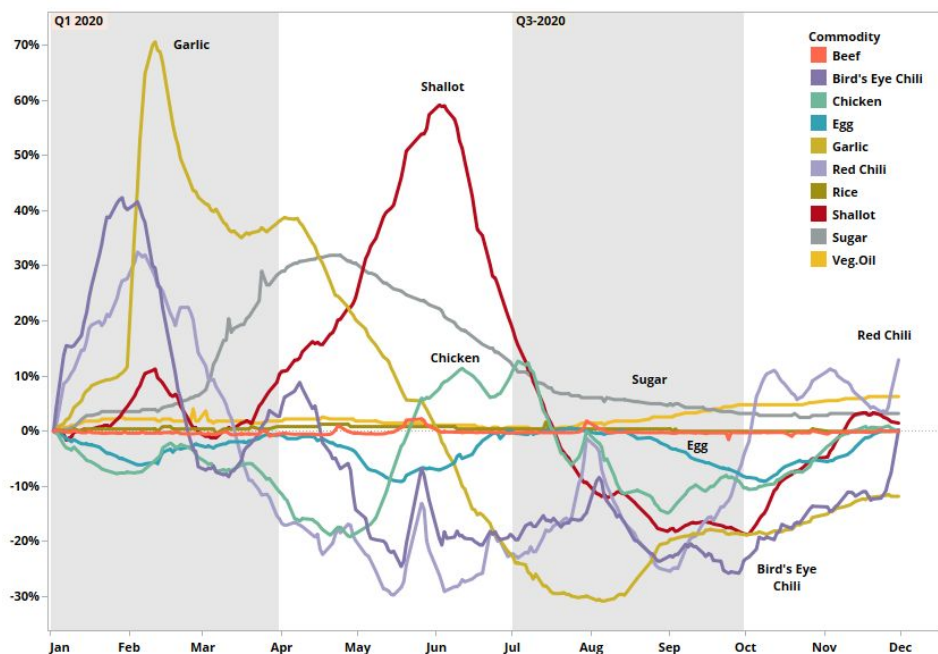
Source: WFP calculation based on data from the Database of Climate, Pests, and Climate Change Impacts, Ministry of Agriculture (2020).

8. Food Access

8.1. Economic Access: National-level Daily and Monthly Price Development

Daily Food Price Development (%)

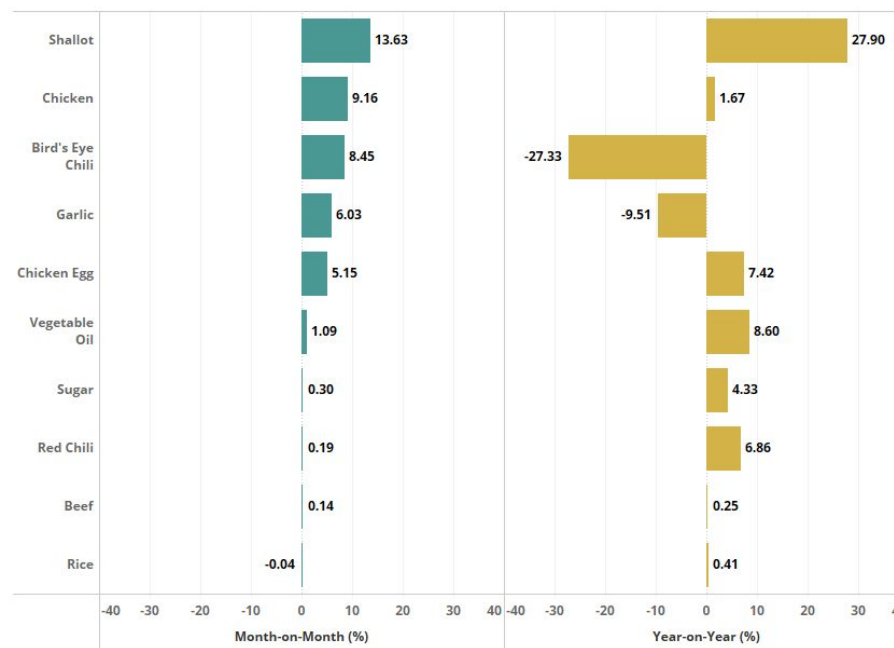
Baseline: Price on 1 January 2020



Following a period of low food prices in Q3 2020, the prices of many strategic food commodities rose in October 2020. According to Statistics Indonesia, poultry products, such as chicken meat and chicken eggs, as well as horticultural products, such as garlic and shallots, observed a significant price fall in Q3 2020, becoming the prime contributors to deflation from July to September 2020. The overall weak demand, resulting from decreased purchasing power due to the ongoing pandemic shock contributed to the low Q3 food prices [57,58]. However, the onset of the wet season in October 2020 triggered an increase in prices due to lower production levels, higher incidence of pests and diseases, and higher damage for some commodities (shallots, chilies, chicken meat and eggs). This reportedly was exacerbated by decreased commodity production driven by fears of low farmgate prices [59,60,61]. The Ministry of Agriculture order to breeders to cull millions of

November 2020 Monthly Price Change (%)

Month-on-Month (MoM) and Year-on-Year (YoY)

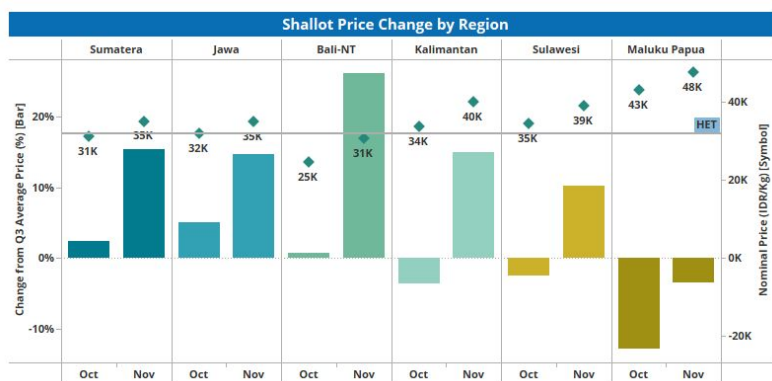
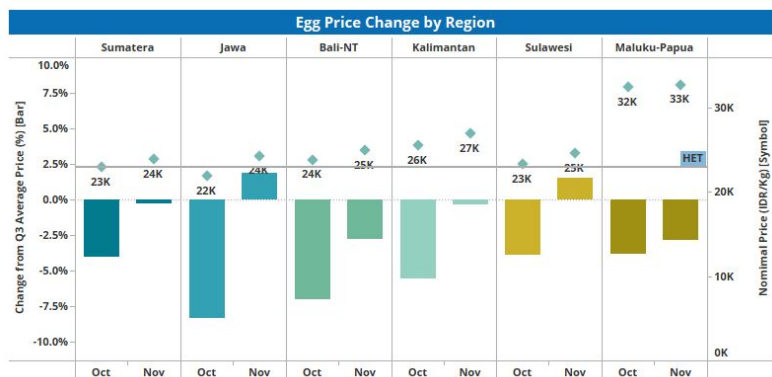
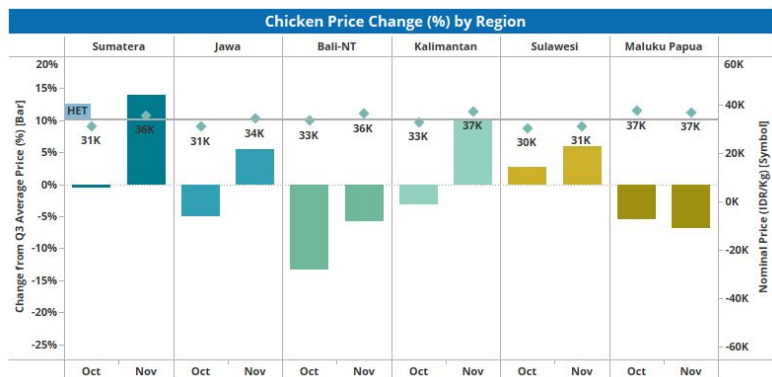


chicken and reduce hatching eggs to reduce oversupply has contributed to the falling prices throughout 2020 [62,63,64]. The alleviation of social and movement restrictions, coupled with holiday celebrations, as well as the inclusion of eggs in food assistance packages have been estimated to increase the demand for food items, contributing to a price increase [65,66,67,68]. The rise in food prices was the primary driver of rising inflation in October and November 2020 [69,70].

In November 2020, the prices of all strategic commodities, except rice, increased compared to October 2020. The prices of strategic commodities are also higher compared to November 2019, with the exception of garlic and bird's eye chili. Five commodities experienced a price increase of more than 5% between October and November 2020: shallots (17%), chicken meat (9%), bird's eye chilli (8.5%), garlic (6%), and chicken eggs (5%).

8. Food Access

8.2. Economic Access: Regional Variations in Food Prices

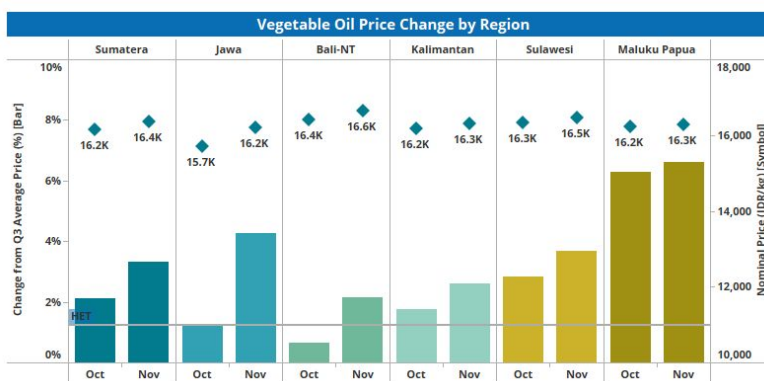


With the onset of the wet season in October 2020 the prices of most food commodities have begun to rise compared to levels in Q3 2020 — however the trend is not consistent at the subnational level and differs across commodities. The price of vegetable oil in October and November 2020 has consistently increased across all regions compared to levels observed in Q3 2020, exceeding the retail price ceiling (HET), and with little regional variation in price levels (ranging between IDR 16,200/kg and IDR 16,600/kg in November 2020). This rise has been indicated to be driven by soaring global crude palm oil prices [71].

In comparison, the price movement patterns and the price levels of other commodities were more varied across regions, a potential indication of weak spatial market integration that may be caused by logistics inefficiency as well as high post-harvest and processing costs, among others [72].

Despite reported price declines for some commodities, food prices in Maluku and Papua remained among the highest and exceeded the retail price ceiling (HET) for chicken meat, chicken eggs, shallots, and vegetable oil. Although the prices for chicken meat, chicken eggs, and shallots in Maluku and Papua declined compared to Q3 2020, prices for chicken eggs and shallots were higher by 40% compared to the prices of the same in Jawa, the main producer of eggs and shallots.

A study by WFP (see page 26) identified the high logistics costs to Eastern Indonesia as a critical point in the chicken eggs supply chain, contributing to higher prices.



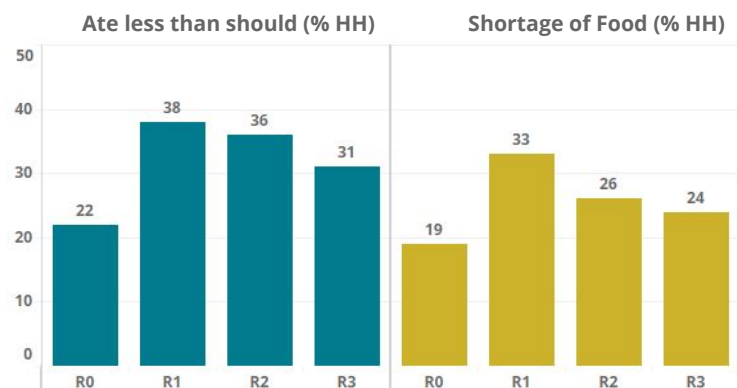
Note: Baseline = monthly average price in Q3 2020

Source: WFP calculation based on data from PIHPS, Central Bank of Indonesia (2020).

8. Food Access

8.3. Economic Access: Household Access to Food

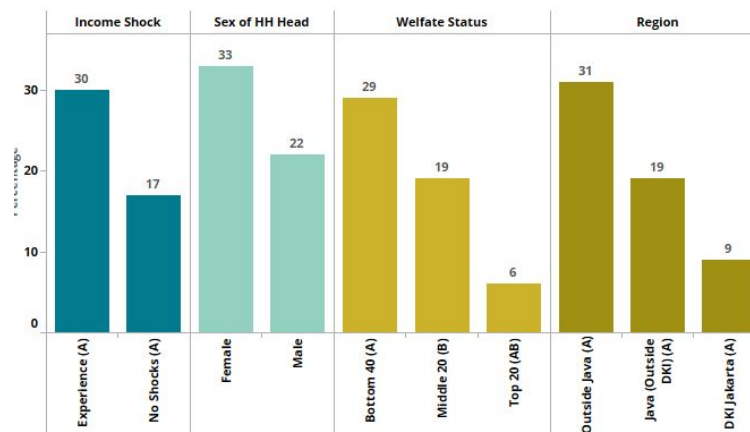
Development of Food Insecurity Prevalence (%HH)



Change in Food Shortage Prevalence (%HH)



Food Shortage Prevalence by HH's Characteristics (%HH)



Note: Differences between categories labeled with the same letter (e.g. A, B, AB) were found to be statistically significant, eg. the difference in the prevalence of food shortages between the Bottom 40 households and the Top 20 households was statistically significant, but the difference between the Bottom 40 and the Middle 20 was not statistically significant.

Source: World Bank (2020).

The World Bank's High Frequency Monitoring of COVID-19 Impacts in Indonesia ^[73] provided insights regarding the development of household food security as the pandemic progressed.

The prevalence of households experiencing food shortages and eating less declined between May 2020 to August 2020, or between the first and third round of the survey. During this period, the proportion of households reporting having experienced food shortages declined from 33% to 24%, while those reporting to eat less dropped from 38% to 31%, as large-scale social restrictions were loosened and economic activities resumed in June 2020. In August 2020, the severity of household food shortages returned to pre-COVID-19 levels, except for Bottom 40% household, in urban areas and outside of Java.

In Round 3, the proportion of households experiencing food shortages are significantly higher among those undergoing income shocks, those with lower education, and residing outside of DKI Jakarta. Although the proportion of households experiencing income reduction is comparable across the welfare distribution, households in the bottom 40% welfare group reported significantly higher incidences of food shortages (29%) than the middle 20% (19%) and top 20% (6%). Poor and near-poor households are thus more vulnerable to shocks, including those induced by the pandemic; this may lead to deteriorating household food security status, signifying the importance of ensuring that these populations have access to social protection programmes.

From a gender perspective, compared to the previous months, in August, households with female breadwinners were more likely to experience income reductions (53%) compared to households with male breadwinners (46%); female-headed households (33%) were also more likely to undergo food shortages than male-headed households (22%), although the difference were not statistically significant.

The survey revealed that nearly a quarter of households (22%) reported an improvement in the severity of food shortages. However, 13% of households experienced increasing food shortages from Round 1 to Round 3. The situation may continue to evolve as regions loosen and retighten mobility restrictions in response to the development of the pandemic. In terms of social protection, almost 90% of the Bottom 40% households reported to have received support from at least one scheme. Still 10% of households in the Bottom 40% who have experienced income shocks do not yet have access to social protection schemes. However, no significant relationship between household food security status and receipt of social protection transfers have been reported.

The World Bank estimated that extreme poverty (based on USD1.9 per day poverty line) in the country is likely to increase, for the first time since 2006, from 2.7% in 2019 to 3% in 2020.

8. Food Access

8.4. Physical Food Access: COVID-19 Impacts on Traditional Markets

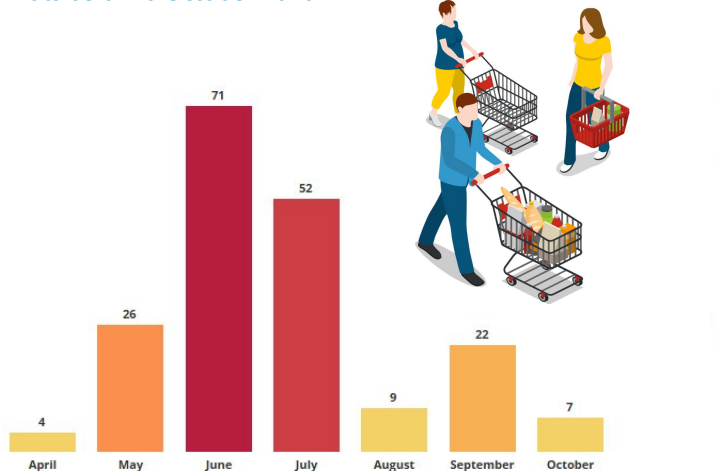
Number of Market Temporarily Closed by Province

Data as of 10 October 2020



Number of New Market Closure Case by Month

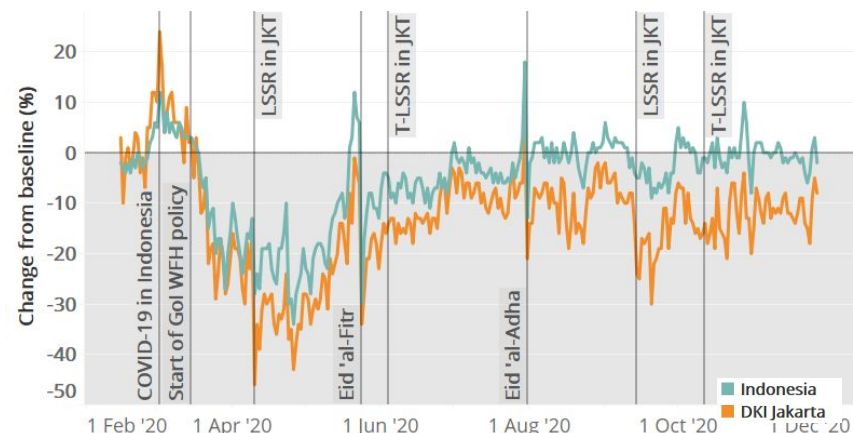
Data as of 10 October 2020



National Mobility Change in Grocery & Pharmacy Areas (%)

Change compared to baseline (3 January - 6 February 2020)

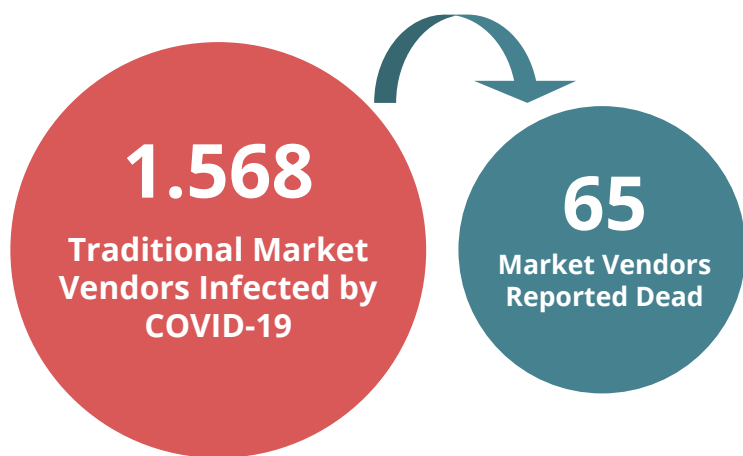
As of 27 November 2020



Source: Google Mobility data (2020).

Number of Market Vendors Infected by COVID-19

Data as of 9 November 2020



Source: Indonesian Market Traders Association (IKAPPI)

Traditional Market Temporary Closure

Based on data by the Indonesian Market Traders Association (IKAPPI), most of the new cases of traditional market closure occurred between May and July 2020. However, in September 2020, the number of new cases seemed to rise again.

At least 38 new cases of traditional market closure were reported between August and October 2020. The number of vendors diagnosed positive for COVID-19 was the main reason for closure in order to contain the spreading of the virus in the markets.

As of 10 October 2020, IKAPPI reported 193 traditional markets across Indonesia which had experienced temporary closure. The highest number was in DKI Jakarta (55 markets), followed by Central Java (44 markets) and East Java (29 markets).

Mobility Change in Grocery and Pharmacy Areas

People's mobility in reaching grocery and pharmacies have returned to near baseline (3 January to 6 February 2020) levels, averaging at 0.6% below the baseline in November 2020, based on Google Mobility data. However, mobility in DKI Jakarta is still much lower than at national level, with a mean of -11% below the baseline in November 2020. The transitional large-scale social restrictions in DKI Jakarta have been extended to 21 December 2020, as cases continue to surge in the capital [74].

9. Food Producers

The agricultural sector has served as a shock-absorber during the pandemic, by absorbing labour from other sectors. The World Bank's High-Frequency COVID-19 Monitoring Survey (Round 3) indicated that 21% of surveyed individuals that were working in August had changed jobs since the beginning of the pandemic. Among those working in August, 36% were working in the agriculture sector, compared to 32% in May, and 19% pre-pandemic. The majority of those who stopped working during the pandemic were wage labourers, many wage labourers also shifted to farm businesses [75]. The August 2020 National Labour Survey (SAKERNAS) also reported an increase in the proportion of workers being employed in the agricultural sector, from 27.5% in August 2019 to 30% in August 2020, and an increase of 2.8 million, while the overall number of the working population across all sectors decreased by nearly 300,000 [76].

However, wages in the agricultural sector are among the lowest. The sector recorded the second lowest monthly wages among permanent labourers and employees in August 2020 (IDR 1.9 million), or 31% lower than the mean across all sectors (IDR 2.8 million), with the wages of female labourers being 37% lower (IDR 1.2 million) than their male counterparts (IDR 2.1 million) [77]. The monthly income of agricultural casual workers (IDR 1.1 million) [78] and self-employed workers (IDR 1.3 million) were lower than their counterparts working in the manufacturing and services sector [79]. In November 2020, casual workers in agriculture were paid a daily rate of IDR 55,848, lower by nearly 40% compared to daily construction workers (IDR 90,807) [80]. Overall, wages in the sector do not meet the inflation-adjusted minimum decent living requirements (approximately IDR 2.1 million per month in 2019)[iv] [81, 82]. During the pandemic, a reduction in income reported in agriculture compared to other sectors, the proportion of income reduction relative to pre-pandemic levels for those experiencing it was the second worst (-46%) after the transportation, storage, and communication sector (-50%) [83].

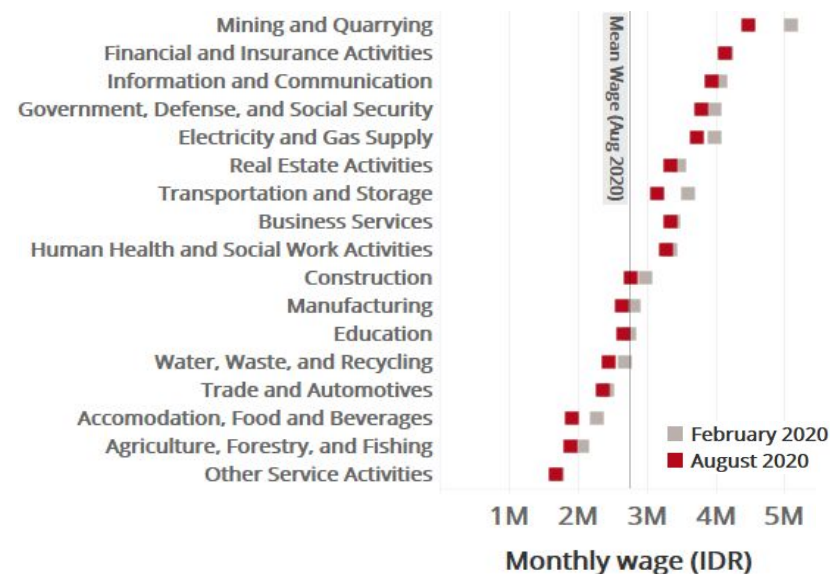
On a positive note, farmers' terms-of-trade (ToT)[v] continued to increase for the sixth consecutive month in November 2020, implying further improvements in their purchasing power. The farmers' ToT increased by 0.6% to 102.9 between October to November 2020, as overall, prices received by farmers for their products increased faster (1%) compared to input prices (0.2%) and living costs (0.5%) during the month. In terms of regional variation, Riau province recorded the highest farmers' ToT (127.3), while Bali recorded the lowest ToT (92.6). The estate crop sector reported the highest ToT at 110, while livestock still reported ToT values below 100, at 98.3. Increases in the prices of oil palm, rubber, chilies and shallots contributed to an increase in ToT of estate crops (2.2%) and horticulture (2%) [84].

Footnote:

[iv] The estimation of the 2019 minimum costs of decent living is based on the 2015 value[85], adjusted for inflation[86].

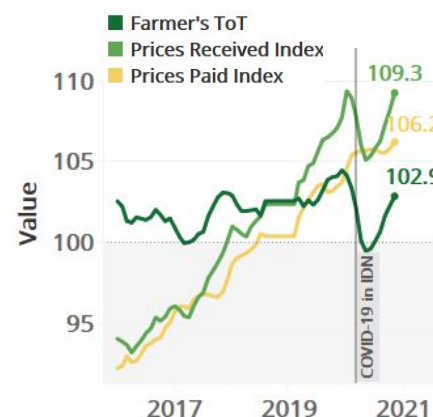
[v] Please see the Methodology section for more details on the Farmer's ToT concept.

Monthly Wages of Permanent Laborers and Employees, by Sector February 2020 vs. August 2020

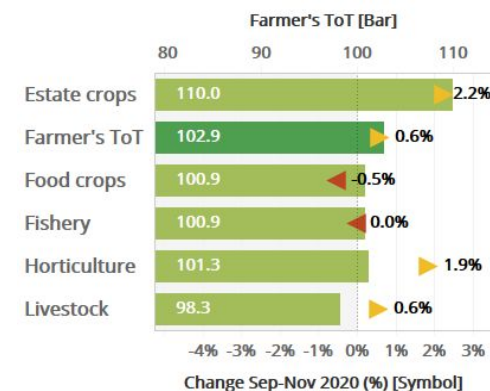


Source: SAKERNAS August 2020, Statistics Indonesia (2020).

Farmer's Terms-of-Trade (ToT) and Price Indices (2018=100) January 2016 - November 2020



Change in Farmer's ToT (%) by Sub-sector, Sep - Nov 2020



Source: WFP calculation based on data from Statistics Indonesia (2020).

10. Food Supply Chain: Ensuring the Availability of Essential Commodities

During the current pandemic, and going forward, ensuring both physical and economic access to essential commodities would help boost consumer consumption of fruits, vegetables and protein-rich commodities. There have been concerns that commercial supply chain disruptions during the pandemic would hinder the availability and distribution of essential goods, including food items.

WFP, jointly with the Coordinating Ministry for Human Development and Cultural Affairs (Kemenko, PMK) conducted a study on the current status of commercial supply chains of essential goods in order to recommend actions on how to achieve sufficient availability of items considered essential during a pandemic and strengthen the effectiveness of supply chain systems. The study was conducted by experts in system thinking and agriculture supply chain and engaged more than 500 resource persons in more than 20 focus group discussions and two webinars. It found that during the COVID-19 pandemic a shift took place in the type of goods considered essential. A case study was conducted to identify generic and specific strategies that ensure the availability of three indicative goods - chicken eggs, oranges and hand sanitizer - as representative items of a wider range of food and non-food items that became essential or more essential during the pandemic.

The steps to build strategic recommendations to ensuring the availability of goods that became essential during the COVID-19 pandemic are illustrated:



The strategic recommendations include the use of a supply chain perspective, risk analysis for mapping plausible events, enhancement of the legal framework of monitoring and collaboration mechanism, establishment of a digital network for information sharing and establishment of a triggering unit in the relevant Coordinating Ministries to ensure that supply chain analysis is carried out accordingly.

In the case of food commodities, using chicken eggs and oranges as indicative goods, effective supply chains are crucial in ensuring timely and sufficient product availability as well as price stability across the country during a pandemic, particularly when demand for different items fluctuates within the year and the production capacity is not equally distributed across the regions. Seasonality of production may bring an additional challenge for certain items, as peak harvest periods differ by regions and knowing where to source the items from, to which markets, at which time of the year is crucial to maintain a constant local supply of goods and thus help to achieve more stable prices. Some problems are common among food supply chains, including the poor post-harvest handling that affect product quality; the limited availability and utilization of cold chain infrastructure that have contributed to food losses and quality degradation; and high logistics costs particularly for inter-island trade.

The study also found that Government-to-Government (G2G) and Business-to-Government (B2G) collaborations have helped smoothen inter-provincial trade, while the rise of e-commerce start-ups, such as TaniHub and e-Tanee, has helped to digitize the supply chain, thereby supporting synchronization of supply and demand, and making it more effective and efficient. It has also given examples of how the use of cold chain infrastructure and adoption of good post-harvest practices could help improve product quality and reduce losses. *The full report from this study will be published by end of December 2020.*

11. Nutrition: Monthly Minimum Cost for Decent Living

In October 2020, the Ministry of Manpower (MoM) released a new regulation to base the calculations of the Monthly Minimum Cost for Decent Living (MoM Regulation No. 18/2020) and used it to inform minimum wage calculations. The new regulation stipulated 64 decent living components, of which 13 components are related to food.

Monthly Quantities of Food Items Referenced in Monthly Minimum Cost for Decent Living (KHL) and Balanced Nutrition Guidelines (PGS)

Food item	KHL ^a	PGS ^b
Rice	10 kg	7.2 kg ^c
Meat, medium fat	0.75 kg	1.05 kg
Fish	1.2 kg	1.2 kg
Eggs	1 kg	1 kg
Tempe/ Tofu	4.5 kg	6 kg
Vegetable	7.5 kg	9 kg
Fruit	4.5 kg	4.5 kg
Milk powder	1 kg	1 kg
Oil	1.2 kg	1.2 kg
Sugar	1.2 kg	1.2 kg
Flour	3 kg	3 kg
Water	57 L	
Coffee	75 g	
Tea	1 box	
Spices	15%	

Overall, the composition and amount of food items used as reference in the regulation provided more than sufficient amounts of energy and protein for an adult male. Ministry of Health (MoH) Regulation No. 28/2019 stipulated that the determination of the food cost component for the minimum wage calculations should be based on the principles of adequate and balanced nutrition, using the average nutritional adequacy of males and females aged 19-55. The food package outlined in the Decent Living Requirements regulation provide 2,728 kcal and 81 g of proteins a day, higher than the amounts needed by an adult male (2,500 kcal and 65 g of protein).

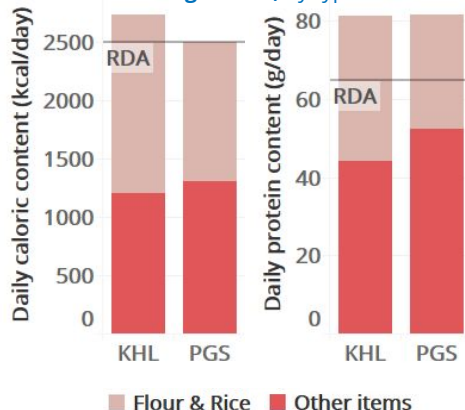
The new regulation recommends a reduction in the amount of sugar and cooking oil from the previous regulations, which is a step in the right direction towards a healthier diet. At 40 g/day each, the daily amount of sugar and cooking oil stipulated in the regulation is still within the recommended amount, not exceeding the upper limit of 50 g/day for sugar and 67 g/day for oil.

Nutrition-wise, tweaks could be made to further improve the quality of the diet. Rice, as the main country's staple, is a cost-effective source of calories and protein. However, the average Indonesian typically consumes 6.4 kg of rice monthly. Therefore, 10 kg of rice and another 3 kg of another carbohydrate source (e.g. flour), as the MoM Regulation No. 18/2020 proposes, could be considered higher than recommended and may increase the risk of diabetes and obesity. To reduce the food package caloric content while maintaining protein levels, the source of carbohydrate could be reduced in lieu of increased animal- and plant-based proteins. There is value in increasing the reference amount of animal-based proteins, a good protein source and other nutrients (e.g. iron, zinc, vitamin B12) with higher bioavailability to prevent micronutrient deficiency.

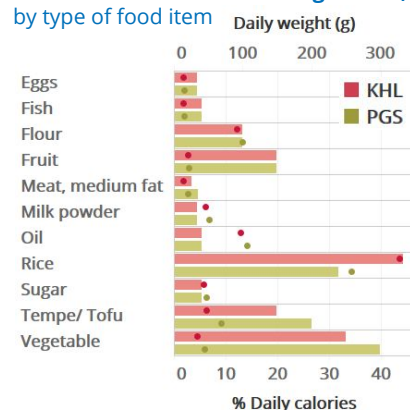
Note: ^a MoM Regulation No. 18/2020; ^b Alternative based on MoH Regulation No. 41/2014 and 28/2019; ^c Considering the average Indonesian's daily consumption of rice based on SUSENAS Mar 2019.

Using a higher reference value for animal-based proteins for the calculation of the minimum wage could help make these items, which are typically more costly, more accessible to workers and their families. Although the daily reference value for fruits had been reduced from 250 g to 150 g, overall the total amount of fruits (150 g) and vegetables (250 g) in the new regulation still meet the minimum daily amount of 400 g/day recommended by WHO. However, the Balanced Nutrition Guidelines (MoH Regulation No. 41/2014) recommends that adults consume 200 g of fruits and 300 g of vegetables daily. Improving the quality standard of the food items could be another option to ensure that the decent living requirements is more nutrition-sensitive—for example by using fortified food items (cooking oil, flour, and rice) as reference. Ultimately, however, the discretion to choose which food items to purchase are at the hands of the consumer; thus efforts to improve the dietary patterns of the population through regulation would need to be accompanied by a behavioural change from the consumer side to choose a healthier diet.

Daily Caloric and Protein Content of Food Package in KHL Regulation and Alternative based on PGS Regulation, by type of food item



Daily Quantities and Caloric Contribution of Food Package in KHL Regulation and Alternative based on PGS Regulation, by type of food item



The WFP Indonesia Country Office is currently conducting a **Fill the Nutrient Gap study** which aims to identify the barriers to a healthy and nutritious diet in Indonesia, as well as determine the most cost-effective food combination to meet a household's dietary requirements. The study is planned to be released in the first quarter of 2021.

Note: Please see Methodology section for more details on the calculation for this analysis.

Methodology

Analyses of price indices. The percentage changes of these quarterly price indices indicate the extent to which recent price changes can be considered normal or abnormal as compared to the relevant reference period (i.e. the previous quarter, the preceding year, or the baseline period) (World Food Programme, 2014):

“Quarterly change from previous quarter” is calculated as a percentage change of the latest available quarterly nominal price from the previous quarter. “Quarterly change from last year” or “Year-on-Year change” is calculated as a percentage change of the latest available quarterly nominal price from the same quarter in the previous year.

Food trade. The calculation of the agricultural and food trade figures includes the following 2-digit Harmonized System (HS codes) for the following categories: Live animals (01), Meat (02), Fish and crustaceans (03), Dairy products (04), Edible vegetables (07), Edible fruits, nuts (08), Coffee, tea, spices (09), Cereals (10), Milling products (11), Oilseeds (12), Lac, gums, resins (13), Fats, animal and vegetable (15), Meat and fish preparations (16), Sugars (17), Cocoa (18), Cereal, flour, starch (19), Vegetable and fruit preparations (20), Misc. edible preparations (21), Beverages (22).

Poor population. The poor population is determined by comparing the per capita expenditure to the poverty line of a given location. Individuals whose per capita expenditure falls below the poverty line are defined as poor. The calculations in this report used the provincial urban and rural poverty lines from Statistics Indonesia (BPS).

Reference: <https://sirusa.bps.go.id/sirusa/index.php/indikator/196>

Farmers’ Term of Trade (ToT). ToT is a comparison between the price index received by farmers (It) with the price index paid by farmers (Ib) which is expressed as a percentage. In concept, NTP states the level of exchangeability of goods (products) produced by farmers in rural areas for goods services needed for household consumption and for purposes in the agricultural production process. ToT also expresses farmer’s welfare. ToT > 100 means that the farmer has a surplus. Farmers’ income increases greater than their expenditures, thus the level of farmer welfare is better than the previous level.

Reference: <https://sirusa.bps.go.id/sirusa/>

Google Mobility Data. The Community Mobility Report aims to provide an analysis of what changes have occurred as a result of implementing policies to fight COVID-19. The report maps movement trends over time by geography, across categories of places such as retail and recreation, grocery stores and pharmacies, parks, public transport hubs, workplaces, and residential areas.

The data show how visits and length of stay at different places change compared to a baseline. These changes were calculated using the same kind of aggregated and anonymized data used to show popular times for places in Google Maps.

Reference: <https://www.google.com/covid19/mobility/>

World Bank’s High Frequency Monitoring. WB’s High-frequency monitoring survey is a 5-rounds panel survey, interviewing about 4,000 households for 20-30 minutes each. It is conducted every 3-4 weeks for the first 3 months and every 3 months for the following 6 months. The sampled households were drawn from Urban Perception Survey (2018), Rural Poverty Survey (2019), and Digital Economy Survey (2020) across 40 districts and 35 cities in 27 provinces. Stratification used are divided into explicit (5 regions:DKI Jakarta, Java Non-DKI Jakarta Rural, Java non-DKI Jakarta Urban, Outside Java Rural, and Outside Java Urban) and implicit (sex and education of the head of households). Sample distribution of the survey and Indonesia’s National Socio-Economic Survey (Susenas) is very similar across each stratification of interest, confirming confidence in the representativeness of the survey sample.

Reference:

https://www.dropbox.com/s/lnwcy6sxec1qtsI/Indonesia%20HiFy%20COVID-19%20Round%203%2020.09.30_%20ANU.pdf?dl=0

UN Women’s Rapid Gender Assessment Survey on the Consequences of COVID-19 in Indonesia. From April to July 2020, UN Women collected a SMS-delivered, web-based Rapid Gender Assessment Survey on the Consequences of COVID-19 in Indonesia, that was rolled out to randomly selected cellphone users under Indosat Ooredoo cellular provider. The questionnaire is comprised of 16 questions that follows international classification and statistical standard aimed to capture relative changes since the Covid-19 pandemic, disaggregated by sex. The survey is collected in 8 other countries in Asia and Africa and their result is comparable across countries. The Indonesia data profile has 1,266 sample size with ages between 10 and 79 years.

Reference:

https://data.unwomen.org/sites/default/files/inline-files/Report_Counting%20the%20Costs%20of%20COVID-19_English.pdf

Commercial Supply Chain Strategy for Indonesia Essential Goods during the COVID-19 Pandemic. Between July to December 2020, WFP supported the Coordinating Ministry of Human Development and Culture, in a study to support the development of a strategy to enhance the effectiveness of commercial supply chains to ensure the availability of essential goods during the COVID-19 Pandemic. The study was conducted by experts in system thinking and agriculture supply chain and engaging more than 500 resource persons in more than 20 FGDs and two webinars. Detailed findings will be published in a separate report.

Minimum Cost for Decent Living. The caloric and protein composition calculations had been conducted based on the monthly amount of food items stipulated in the Ministry of Manpower (MoM) Regulation No. 18/2020 on Minimum Cost for Decent Living and proposed food composition based on the Ministry of Health (MoH) Regulation No. 41/2018 on Balanced Diet and MoH Regulation No. 28/2019 on Recommended Dietary Allowance for Nutrition. The caloric and protein composition for the selected food items were obtained from the Ministry of Health Food Composition Database. See next slide for the calculated figures.

Methodology

Minimum Cost for Decent Living Analysis (continued from previous slide)

Caloric and protein composition of food items referred in the Ministry of Manpower (MoM) Regulation No. 18/2020 on Minimum Cost for Decent Living and proposed food composition based on the Ministry of Health (MoH) Regulation No. 41/2018 on Balanced Diet and MoH Regulation No. 28/2019 on Recommended Dietary Allowance for Nutrition

Food item	KHL ^a					PGS ^b				
	Monthly weight g	Daily weight g	Daily calories kcal	% to daily calorie	Daily protein g	Weight g	Daily weight g	Daily calories kcal	% to daily calorie	Daily protein g
Rice	10,000	333.3	1,190.0	43.6	28.0	7,200	240.0	856.8	34.3	20.2
Meat, medium fat	750	25.0	50.3	1.8	4.7	1,050	35.0	70.4	2.8	6.6
Fish	1,200	40.0	50.0	1.8	8.5	1,200	40.0	50.0	2.0	8.5
Eggs	1,000	33.3	51.3	1.9	4.1	1,000	33.3	51.3	2.1	4.1
Tempe/ Tofu	4,500	150.0	172.5	6.3	18.7	6,000	200.0	230.0	9.2	24.9
Vegetable	7,500	250.0	125.0	4.6	-	9,000	300.0	150.0	6.0	
Fruit	4,500	150.0	75.0	2.7	-	4,500	150.0	75.0	3.0	
Milk powder	1,000	33.3	170.0	6.2	8.2	1,000	33.3	170.0	6.8	8.2
Oil	1,200	40.0	353.6	13.0	-	1,200	40.0	353.6	14.2	
Sugar	1,200	40.0	157.6	5.8	-	1,200	40.0	157.6	6.3	
Flour	3,000	100.0	333.0	12.2	9.0	3,000	100.0	333.0	13.3	9.0
TOTAL			2,728.3	100.0				2,497.7	100.0	
					44.2					52.3
					81.2					81.5

Note: ^a MoM Regulation No. 18/2020; ^b Proposed alternative based on MoH Regulation No. 41/2014 and MoH Regulation No. 28/2019; ^c Considering the average Indonesian's daily consumption of rice based on SUSENAS Mar 2019. Tea, coffee, and spices are not included in the table.

Source: WFP calculation based on MoM Regulation No. 18/2020, MoH Regulation No. 41/2014, MoH Regulation No. 28/2019.

Protein content per 100 g of food items

Food item	Protein content g
Beef, medium fat	18.8
Fish, mackerel	21.3
Egg	12.4
Tempe	14.0
Tofu	10.9
Milk powder	24.6
Uncooked rice	8.4
Flour	9.0

Source: Indonesia Food Composition Database, Ministry of Health.

Caloric content of food items

Food item	Caloric value kcal / g
Rice	3.6
Meat, medium fat	2.0
Fish	1.3
Eggs	1.5
Tempe/tofu	1.2
Vegetable	0.5
Fruit	0.5
Milk powder	5.1
Oil	8.8
Sugar	3.9
Flour	3.3

Additional Note: On 26 October 2020, the Ministry of Manpower released MoM Circular No. M/11/HK.04/2020 on the Establishment of the 2021 Minimum Wage during the COVID-19 Pandemic which recommends that regional heads set the 2021 minimum wage equal to the 2020 level ^[87], instead of referring to the MoM Regulation No. 18/2020, which had been expected to be released earlier in the year to allow time for the calculation for the nominal value of the minimum wage based on the new minimum costs of decent living components ^[88]. According to the ministry, the circular had been issued to account for the economic impacts of the pandemic, following consultations with labour unions, businesses, governments, experts and practitioners ^[89]. The MoM Regulation No. 18/2020 will be used to guide the establishment of the 2022 minimum wage ^[90]. The establishment of the 2021 minimum wage is at the discretion of subnational governments, and six provinces have decided to increase the level of the minimum wage for 2021 ^[91].

Data and References

COVID-19 Cases Data - Indonesia

- Development of COVID-19 Cases, National Task Force for COVID-19
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Government Policies and Response

- Ministry of Finance (MoF)
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Macroeconomic Data

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 - Ministry of Finance:
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- IDR-USD Exchange Rate 2020, Bank Indonesia (BI)
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- Food Export Policy Tracker, International Food Policy Research Institute (IFPRI)
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- Rice Production, Statistics Indonesia (BPS)
<https://www.bps.go.id/pressrelease/2020/10/15/1757/luas-panen-dan-produksi-padi-pada-tahun-2020-mengalami-kenaikan-dibandingkan-tahun-2019-masing-masing-sebesar-1-02-dan-1-02-persen-.html>
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- Database for Climate, Pests, and Impact of Climate Change, Ministry of Agriculture (MoA)
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Food Prices

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- Center for Information of Strategic Food Prices (PIHPS), Bank Indonesia (BI)
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<https://www.panganku.org/id-ID/beranda>