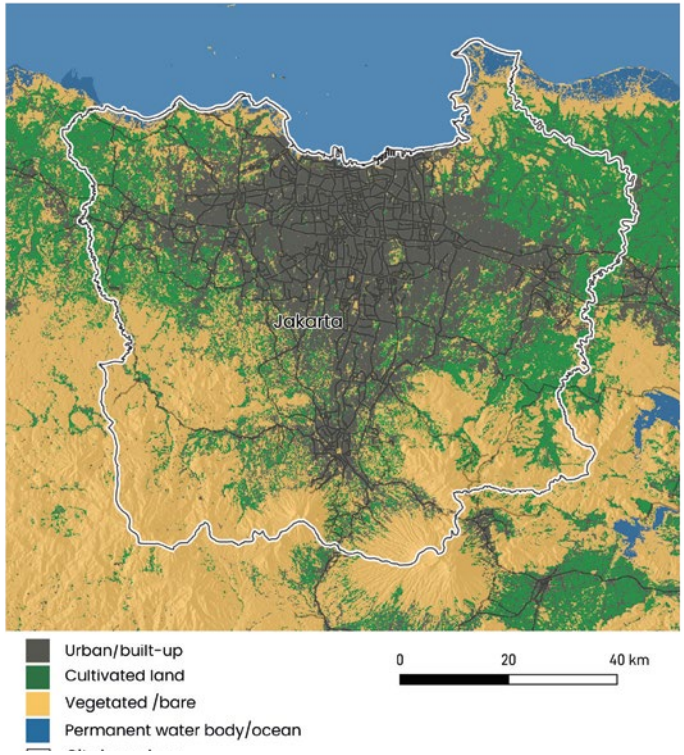
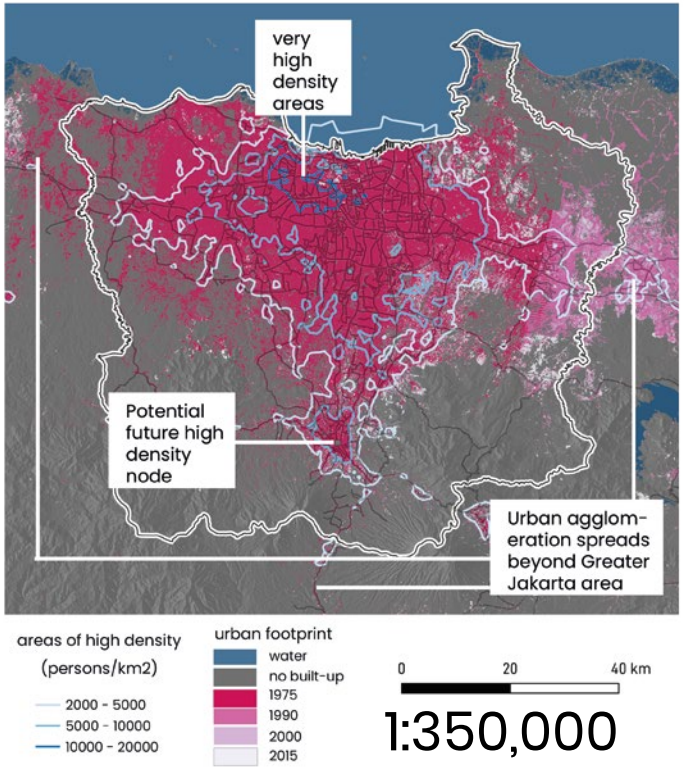
External drivers

The landcover and urbanisation maps illustrate some key external drivers that shape the food system in Jakarta. These include the use of land and indications of where population density and growth are most intense, highlighting the relationship cities have with food production, and suggesting areas of higher vulnerability during crises that affect the food system

Landcover 2015



Urbanisation trends



Jakarta is Indonesia's largest city, the nation's capital, and one of the world's largest metropolitan areas by population. Around a third of the population, c. 9 million people, live outside the formal, Greater Jakarta Metropolitan area. The city is located on Jakarta Bay, the Java Sea, to the north and the city has sprawled east and west along the coast, as well as south into West Java. The city is under threat from the sea a combination of subsidence and storm surges with around a quarter of the population affected by the latter. Population densities reach up to 21-25,000 persons per square kilometre in the some central parts of the city.

Key spatial indicators

Indicator	Jakarta	Average, 7 cities (excl. CXB)	Average, similar size LMIC cities in the region
Population density, persons per km2	7,249	9,468	11,677
Slum population	approx. 791,613		
Total built-up area in 2015, km2	1,889.1	471.0	776.0
Total resident population in 2015	36,312,539	11,002,460	
Surface of the built-up area per person in 2015, m2	52.0	37.3	37.5
Proportion of total resident population potentially exposed to floods in 2015 (%)	2%	38%	
Proportion of cultivated land in 50km radius	28.7%	33.3%	
Cultivated land in 50km radius per 100,000 persons, km²	7.9	44	
Number of supermarkets per 100,000 persons	1.1	4.8	
GDP per capita	11,766.8	4,200.4	
Growth rate	2.2	2.4	
Proportion of population of the urban agglomeration living outside the formal boundaries of the city	33%	37%	

Food supply chains

The following table illustrates the location of the suppliers and customers of surveyed private sector entities, giving an indication of the proximity of food supply chains to the city.

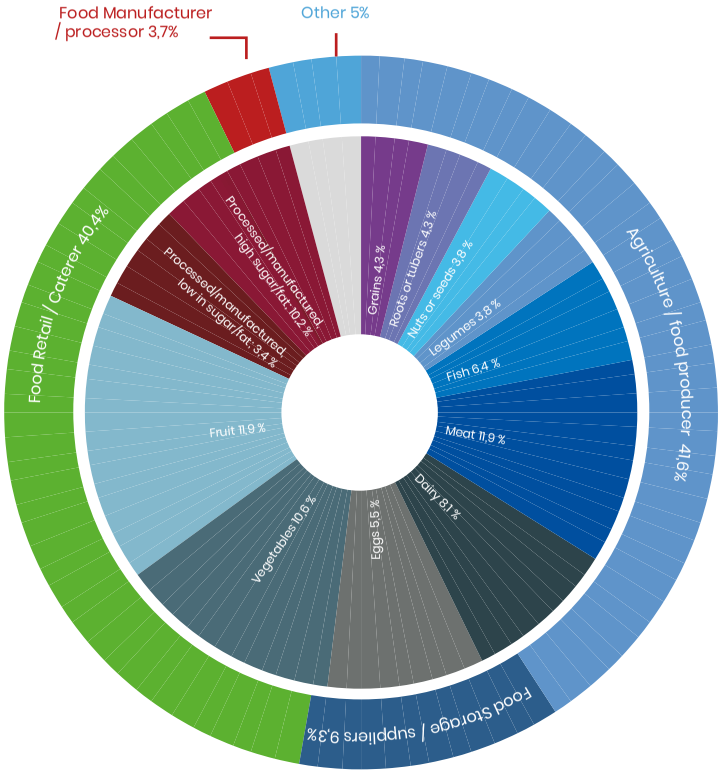
The proximity of food supply chains to the city

	Markets/ Customer locations	Supplier locations
Within the city	52.2%	46.6%
Surrounding region	22.4%	36,0 %
Other regions of the country	23.6%	15.5%
Internationally	1.9%	1.9%

Food environment

The local food system actors and the types of food available in the local market are shown in the below figure. The inner circle consists of the types of food businesses while the outer circle shows the types of food the system produces, processes or sells.

Food system actors & foods available in the local market



4. Outcomes & Pre-COVID-19 vulnerability

Nutritional status, dietary diversity and consumption of unhealthy foods

The following figures date from pre-COVID-19 and indicate vulnerabilities before the crisis, unless recent figures are available in which case a comparison between pre-COVID-19 and recent data is presented.

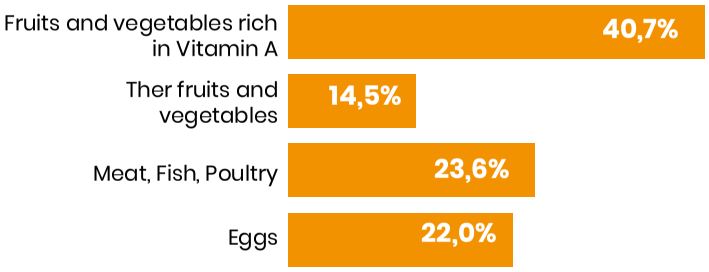
Women

Prevalence of minimum dietary diversity (MDD-W), Jakarta slums

* only data for either mother of or children 12-23 months

Children, 6-23 months

Foods consumed by breastfeeding children (6-23 months), Jakarta



Prevalence of minimum acceptable diet in Jakarta slums, children 6-23m

Children under 5 years

Proportion of wasted and stunted children, Jakarta city.

Consumption of unhealthy foods by children, Jakarta slums

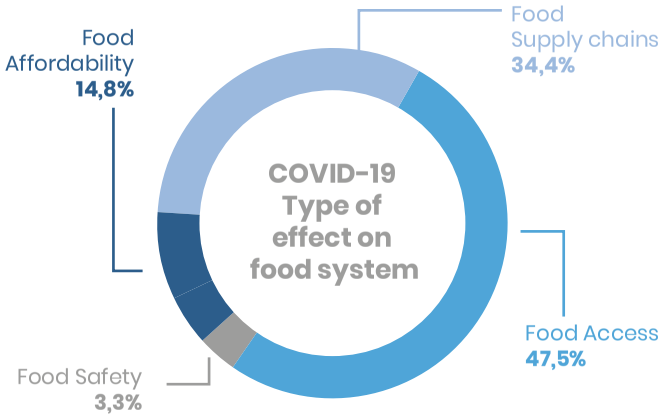
Food security

Changes in the food security levels of Jakarta's population before and during COVID-19 is presented based on the available data, using the Food Insecurity Experience Scale (FIES) and the Livelihood Coping Strategy Index (LCSI). Data using the Food Consumption Score (FCS) was not available.

Prevalence of minimum dietary diversity (MDD-W), Jakarta slums

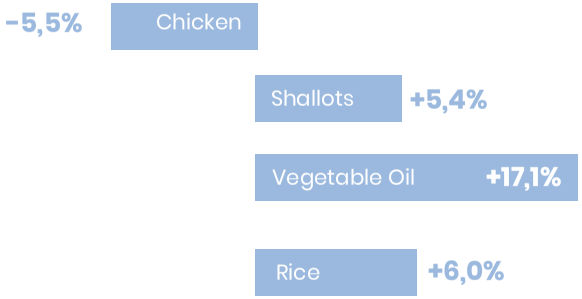
5. COVID-19 impact & response

This section explores the effects of COVID-19 on Jakarta's food system, examining supply chains, food prices and responses.

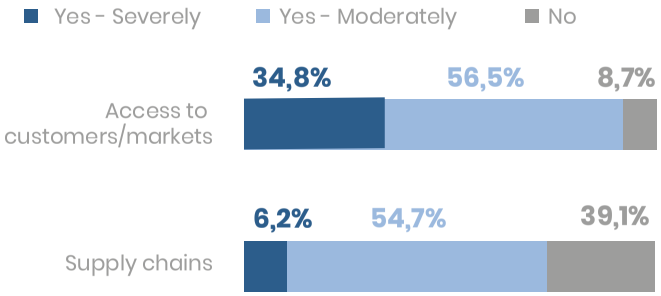


Change in food prices since COVID-19

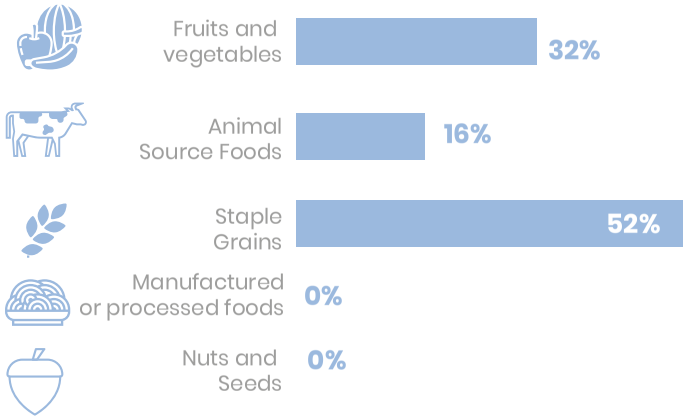
Change in food prices from November 2019 to November 2020 on four selected food items



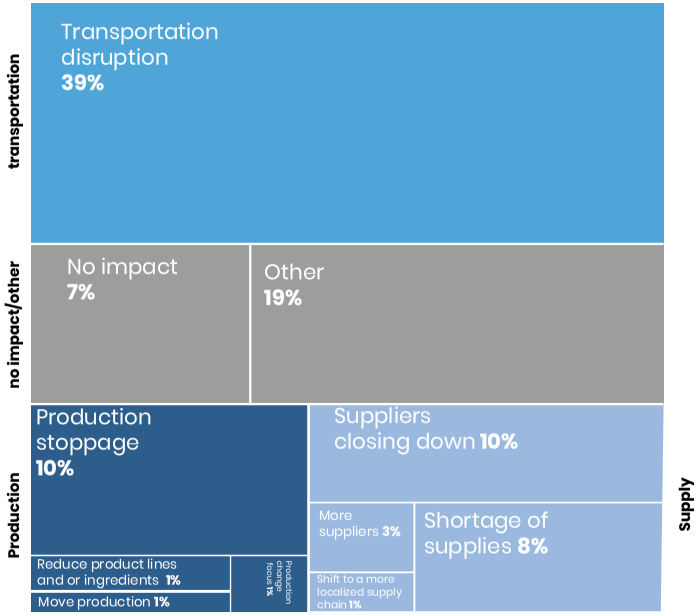
Extent of disruption of the COVID-19 pandemic on markets and supply chains



Foods that were short in supply



Effects of COVID-19 on company supply chains



Proportion of surveyed businesses whose income decreased between 25% and 50%

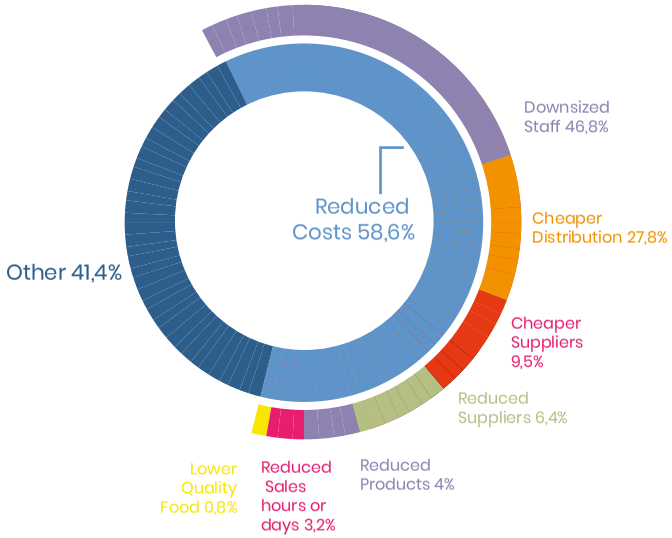
Data Sources

MDD-W REC UNICEF 2018 for Pre-COVID-19; Indonesia Urban Survey (SDFU) 2020 for during COVID-19.
Foods consumed by breastfeeding children (6-23 months) Secondary analysis of the DHS 2017
Minimum acceptable diet REC UNICEF 2018 for Pre-COVID-19; SDFU 2020 for during COVID-19.
Consumption of unhealthy foods by children Indonesia Urban Survey (SDFU) 2020
Proportion of wasted and stunted children Food Systems Dashboard, 2018. Stunting prevalence is classified as low and wasting prevalence as high by WHO standards.
Prevalence of moderate or severe food insecurity (Food Insecurity Experience Scale) REC UNICEF 2018 for pre-COVID; SDFU 2020 for during COVID
Livelihoods coping strategy index (LCSI) Indonesia Urban Survey (SDFU) 2020
Monthly food prices WFP VAM
Sections Food supply chains, Food environment, COVID-19 impact and response Dikoda 2021

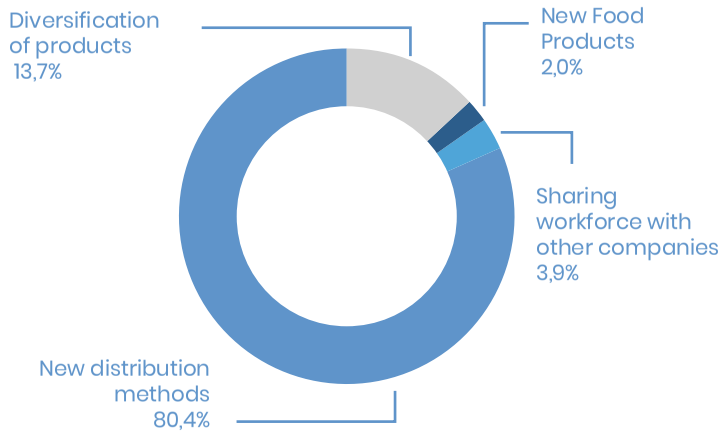
Responses and coping mechanisms

Impacts of COVID-19 on the food system are mitigated by responses by development partners and the government and by adaptations taken by food companies to changing conditions. This section illustrates some of these adaptations and responses, highlighting possible vulnerabilities and opportunities presented by the crisis

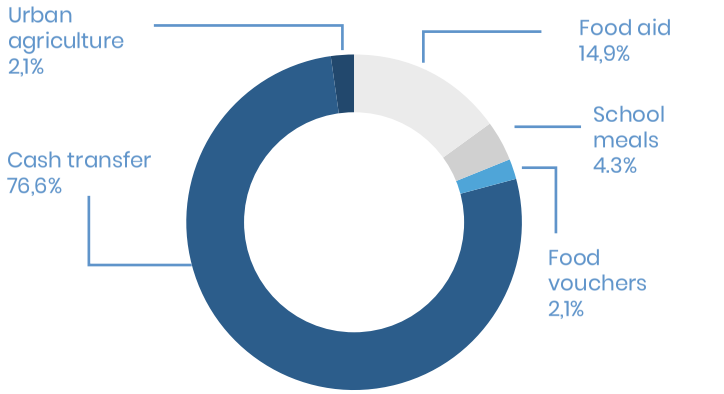
Private sector's methods to cope with lower income with breakdown of reduced costs



Other Methods of Adaptation by companies during COVID-19

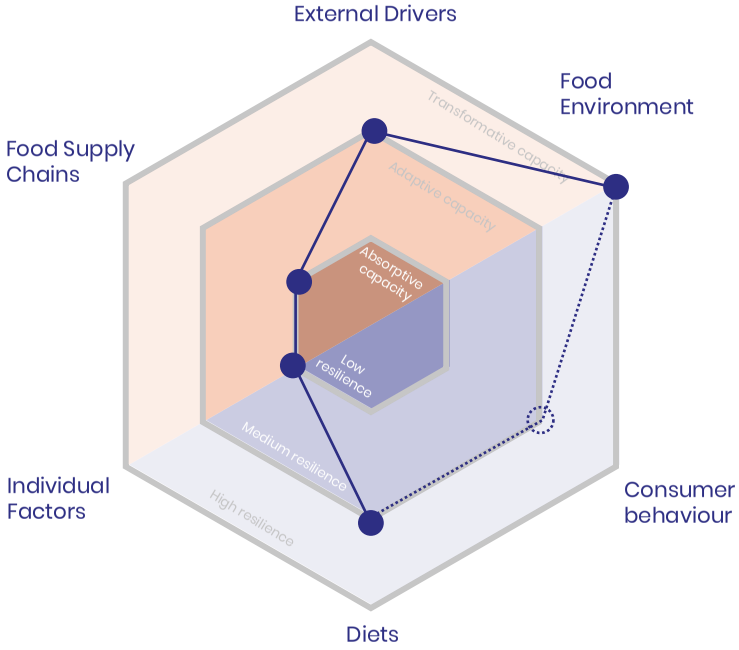


Response by Development Partners to food Insecurity



Typology

The typology contains one core indicator for each dimension, giving an indication to the food system's vulnerability and resilience in the face of COVID-19. No indicator was chosen for consumer behaviour.



Methods and data sources

The brief describes the city's food system based on the Food Systems Framework presented in the report, with focus on available data and components that are likely to be impacted by COVID-19. All data is on city level unless indicated otherwise. Sources for the city brief include primary and secondary data and are listed after each figure or table. DHS data has been disaggregated to strata level to obtain figures specific to the city. Dikoda surveys took place in March 2021 and were carried out on governance, NGO and private sector stakeholders. : The development of the typology and the full survey methodology is detailed in the report.
Key spatial indicators apart from slum population are from 2015 because data was consistently available across cities.

Population density, persons per km2	Calculated using 21.8% as a proportion of the urban population in Indonesia (SDFU 2020) of total population
Slum population	Slum census 2014
Cultivated land in 50km radius, km2	Calculated using GIS spatial analysis techniques by Dikoda using Copernicus Global Land Service data (2019) Buchhorn, M. et al. Copernicus Global Land Service: Land Cover 100m: collection 3: epoch 2019: Globe 2020. Accessed Feb 2020
Cultivated land in 50km radius per capita, km2	Copernicus as above
Number of markets/supermarkets per 100,000 persons	Calculated using GIS and OPenStreetMap data for each city