



# The Market Monitor

## Trends and impacts of staple food prices in vulnerable countries

This bulletin examines trends in staple food and fuel prices, the cost of the basic food basket and consumer price indices for 68 countries in the first quarter of 2018 (January to March).<sup>1</sup> The maps on pages 6–7 provide analysis at sub-national level.

### Global Highlights

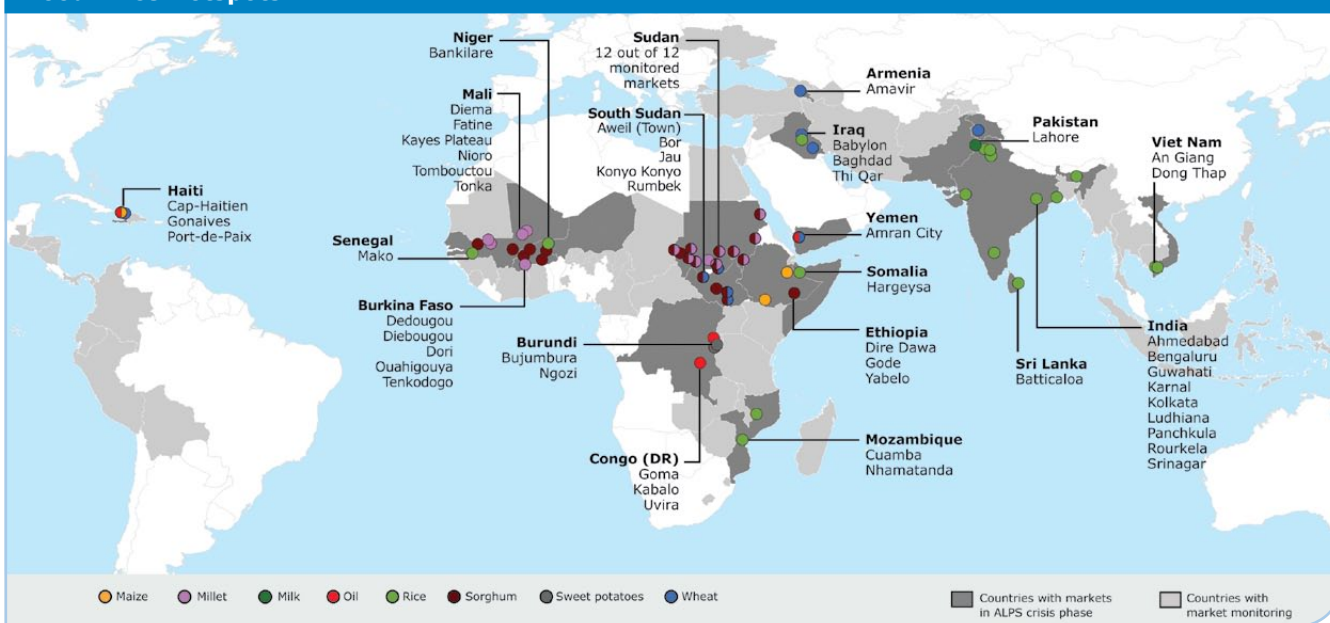
- In Q1-2018, the FAO cereal price index rose by 8.6 percent from Q1-2017, while the global food price index declined by 2 percent year-on-year.
- The real price<sup>2</sup> for wheat was 22 percent above Q1-2017 levels: crops suffered dryness in the United States and cold weather in Europe and the Commonwealth of Independent States, leaving production forecasts open to a downward revision.<sup>3</sup> World ending stocks remain at record levels.
- The real price for maize was 6 percent higher than last quarter but stable compared to Q1-2017. Overall favourable crop conditions offset mixed production outcomes in the southern African regions, leading to firm world supplies.
- The real price of rice increased by 14 percent from Q1-2017, with a slight contraction of stocks in exporting countries and increased buying interest from importing countries.
- In Q1, the real price of crude oil increased by 5 percent from the previous quarter following an agreement on extensive production cuts in major oil-producing countries.

#### CHANGES OF REAL PRICES

Quarterly Change	Maize	Wheat	Rice	Note: Comparison to
q1-2018 vs. q4-2017	6%	3%	4%	Fourth quarter in 2017
q1-2018 vs. q1-2017	0%	22%	14%	Same quarter in 2017
q1-2018 vs. q1-2008		-60%		Global wheat price peak in 2008
q1-2018 vs. q2-2008	-46%		-57%	Global maize and rice price peak in 2008

- The cost of the basic food basket increased severely (>10%) in Q1-2018 in five countries: Bangladesh, Central African Republic, Rwanda, the Sudan and Yemen. High increases (5–10%) were seen in Indonesia, Iraq, Myanmar, South Sudan, Turkey and Viet Nam. In the other monitored countries, the change was moderate or low (<5%).
- Price spikes, as monitored by ALPS, were detected in 19 countries, particularly in Burkina Faso, Haiti, Mali, Sudan, Sri Lanka, South Sudan and the Sudan (see the map below).<sup>4</sup> These spikes indicate crisis levels for the two most important staples in each country, which could be maize, milk, millet, oil, rice, sorghum, sweet potatoes or wheat.

#### Food Price Hotspots



1. Data were collected and collated by WFP country offices and are available at <http://foodprices.vam.wfp.org>. Additional data sources are FAO Food Price Index, FAO/GIEWS Food Price Data and Analysis Tool, and World Bank prices on 20 April 2018.

2. Nominal prices are adjusted by the [US Consumer Price Index](#).

3. [AMIS Market Monitor, Issue 56, March 2018](#).

4. A market is designated as a hotspot if prices for the country's two most important caloric contributors reached ALPS crisis level during Q1-2018, and they did not return to normal levels by the end of the quarter. Note that for some markets/countries, prices are monitored but the price series may not necessarily qualify for ALPS calculation (see the [Price Forecasts & Alerts website](#) for details).

# Price trends and impacts by region (Change from last quarter)

**Impact Codes (q/q)** ■ Low (< 0%) ■ Moderate (0-5%) ■ High (5-10%) ■ Severe (> 10%)

## Latin America and Caribbean

**Hotspots:** The impact of staple food price changes on the cost of the basic food basket in Q1-2018 was moderate in **Ecuador, Haiti, Honduras, Nicaragua, Panama and Peru**; and low in the other countries.

• **Staple commodity prices:** In **Honduras**, roads were closed to prevent turmoil from spreading during the elections; this delayed the distribution of red bean supplies from producing areas, triggering speculative behaviour: bean prices rose by 11 percent in Q1-2018 even though the harvest continued into January. In **Nicaragua**, bean prices were in line with post-harvest trends, increasing from Q4-2017 (+13%) but at similar levels to Q1-2017. Cereal prices fell from Q4-2017 in **Bolivia** (-13% maize), **Colombia** (-1% maize; -7% rice) and **Dominican Republic** (-2% rice) reflecting ample regional supplies. In **Haiti**, the price of local rice rose significantly from Q4-2017 in most departments hit by the 2017 hurricanes (+18% Centre; +6% Ouest; +6% Sud; +8% Sud-Est) and was on average 23 percent higher than in 2017 because of a severe lack of rainfed paddy fields.

• **Fuel prices:** Quarterly fuel prices edged up in **Nicaragua** and **Honduras** (+3.8% gasoline; +5.5% diesel) in response to the increase in the reference price for West Texas Intermediate crude oil after damage by Hurricane Irma slowed petroleum refining in the southern United States. In **Colombia**, the introduction of a green tax in January saw prices rise significantly from 2017 (+10% gasoline; +7.4% diesel).

• **Purchasing power:** In **Venezuela**, year-on-year (y/y) headline inflation spiralled at nearly 9,000 percent as the country continued to finance its fiscal deficit by printing money. In January, the elimination of the subsidized foreign exchange rate for importing food and medicines – the DIPRO – and the devaluation of the bolivar by over 99 percent exacerbated the shortage of food, fuel and other essential goods. In **Haiti**, the national currency

rebounded by 4 percent from Q1-2017 against the US dollar after the government announced that the gourde would be the only currency for in-country transactions in the attempt to protect foreign reserves; y/y changes in the CPI remained high (+13% CPI; +12% food CPI).



## Southern Africa

**Hotspots:** The impact of staple food price changes on the cost of the basic food basket in Q1-2018 was moderate in **Zimbabwe**; and low in the other countries.

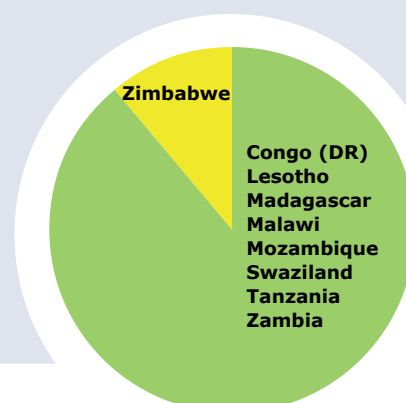
• **Staple commodity prices:** In **Tanzania**, maize prices dropped from Q4-2017 (-17%) as the harvest was underway in northern bimodal regions and favourable production forecasts moderated price expectations for the upcoming 2018 seasons; prices were also down from the record high levels reached in Q1-2017 (-52%). A new maize export ban in **Malawi** helped ease maize prices from Q4-2017 (-12%) and last year (-52%). **Mozambique** saw imported food prices ease from Q1-2017 thanks to a stronger currency (-6% rice; -33% vegetable oil). The price of local crops also declined from last year, reflecting better availability (-57% maize; -19% wheat flour); nevertheless, unfavourable production forecasts generated localized price increases for maize in Tete (+30%) and Zambezia (+17%) compared to Q4-2017. In the **Democratic Republic of the Congo**, although the harvest

season in central Katanga and imports from Zambia brought maize prices down slightly from Q4-2017 (-2%), disruptions to production and trade raised the cost of main staples in Sud Kivu over the same period (+12% wheat flour; +14% palm oil).

• **Fuel prices:** Quarterly fuel prices rose in **Mozambique** (+5.9% diesel) and **Tanzania** (+9.5% gasoline; +13% diesel) as the cap prices for liquid fuels were revised upwards.

• **Purchasing power:** After abandoning the dollar peg in early January, the central bank of **Angola** devalued the national currency by nearly 19 percent from Q4-2017, in a bid to reduce the difference between the official and black market exchange rates; rising import costs sustained y/y headline inflation, which remained high (+22%). High y/y inflation continued to hit the **Democratic**

**Republic of the Congo** (+49%) because of high government spending and currency depreciation. In **Malawi**, headline inflation met the central bank's single-digit target (+9.9% q/q; +8.6% y/y); nevertheless, the food CPI was markedly higher than last quarter (+18%) and monetary authorities have warned of a major risk of rising national prices in the coming months, driven by potential shortfalls in 2018 cereal production.



## Central and Eastern Africa

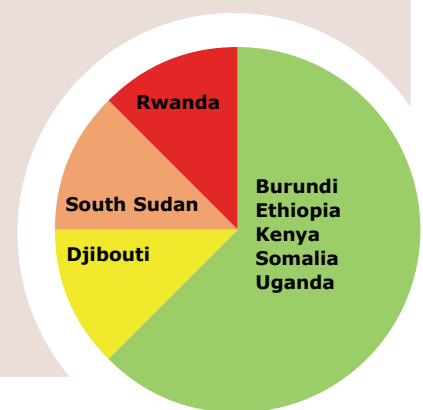
**Hotspots:** The cumulative impact of staple food price changes on the cost of the basic food basket in Q1-2018 was severe in **Rwanda**; high in **South Sudan**; moderate in **Djibouti**; and low in the other countries.

• **Staple commodity prices:** In **Rwanda**, bean prices rose by 19 percent as lower-than-average production from the ongoing harvest came under pressure from increasing demand in Uganda. By contrast, cereal crops from the January/February harvest allowed local markets to meet cereal demand, causing a 10 percent fall in the quarterly price for maize. Continuous local currency depreciation heavily influenced the quarterly price for imported sorghum in northern states of **South Sudan** (+25% in Northern Bahr El Ghazal; +51% Warrap; +160% Western Bahr El Ghazal), where a poor sorghum harvest reduced the availability of local crops, increasing the demand for imports while trade flows were disrupted by conflict. The price of sorghum substitutes such as wheat flour also soared, rising by over 50 percent from Q4-2017 in the same areas. The **ALPS** indicator flagged nearly all monitored markets at *crisis* level for beans, sorghum and

oil. In **Ethiopia**, prices remained well above their Q1-2017 levels for all main staples, including maize (+27%), pasta (+20%) and sorghum (+37%). In **Kenya**, cross-border trade flows with Uganda and Tanzania topped up maize stocks and eased prices from Q4-2017 even after the end of the harvest in Nyanza (-7%) and Rift Valley (-2%); there were seasonal maize price increases in north-eastern (+3%) and coastal areas (+9%).

- **Fuel prices:** In **South Sudan**, fuel prices dropped from last quarter (-8.2% gasoline; -35% diesel) as fuel availability slowly improved, but prices remained far above those recorded in Q1-2017 (+129% gasoline; +55% diesel).
- **Purchasing power:** Currency depreciation did not stop in **South Sudan** during Q1-2018: the pound has fallen by nearly 41 percent since Q1-2017 on the official currency market and it was half its value on the parallel one; y/y hyperinflation (+117% CPI)

persists because of soaring import costs. In **Ethiopia**, the 17 percent devaluation of the official exchange rate from Q1-2017 did not reduce the spread from the black market rate, which also depreciated by 19 percent during the same period. Y/y inflation remained high (+15% CPI; +20% food CPI) under the pressure of rising import costs and growing shortages of foreign currency.



## West Africa

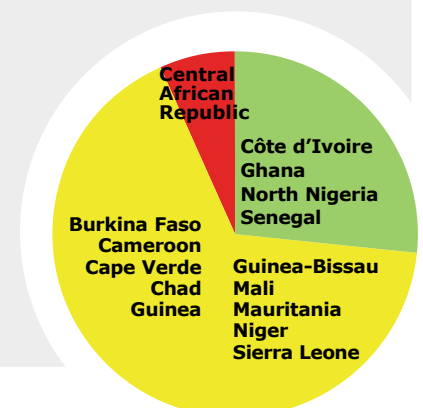
**Hotspots:** The impact of staple food price changes on the cost of the basic food basket in Q1-2018 was severe in the **Central African Republic**; moderate in **Burkina Faso, Cameroon, Cape Verde, Chad, Guinea, Guinea-Bissau, Mali, Mauritania, Niger** and **Sierra Leone**; and low in the other countries.

• **Staple commodity prices:** The progressive reduction in area planted in conflict zones of the **Central African Republic** is curtailing stocks and shrinking the purchasing power of rural households. The price of cassava shot up since Q4-2017 (+28%) as households use it as a substitute for more expensive cereals, such as maize (+39% from Q4-2017). In **Mauritania**, the failure of 2017 sorghum production accelerated the depletion of stocks, driving prices up by 30 percent from last quarter and pushing them to **ALPS** *crisis* level in Tentane and Magta-lahjar. **Mali** saw a seasonal price increase from Q4-2017 for millet (+3%), maize (+3%) and sorghum (+5%) after the end of the harvest season. The average price for imported rice fell thanks to currency appreciation and the local rice harvest; nevertheless, security incidents continued to slow down trade to central regions, triggering

a localized 10 percent price rise for rice imports in Segou. **Guinea-Bissau** has seen a 20 percent increase in the price of imported rice since Q4-2017 because of the upward trend of rice quotations in the country's major trade partners in Asia. In **Chad**, household cereal stocks began to decline in Q1-2018 after the November harvest, increasing pressure on local markets: prices rose markedly in low production areas such as Hadjer Lamis (+10% millet; +17% maize) and where an increased influx of refugee from the Sudan added to local demand, such as in Ouaddai (+27% sorghum; +15% millet).

- **Fuel prices:** In **Nigeria** the upward revision of reference fuel prices after the increase in landed costs discouraged private imports, which are needed to complement local production: quarterly fuel prices rose significantly as a result (+28% gasoline; +11% diesel).

• **Purchasing power:** Although **Nigeria's** currency gained 5 percent against the US dollar from Q4-2017, higher fuel prices and an increasing food CPI (+18% y/y) sustained y/y headline inflation (+14%) well above the national target. In the **Gambia**, political instability since early 2017 has undermined foreign investor confidence, reducing the demand for the national currency as well as foreign reserves: the official value of the dalasi has declined by 8 percent since Q1-2017.



## Middle East, North Africa and Central Asia

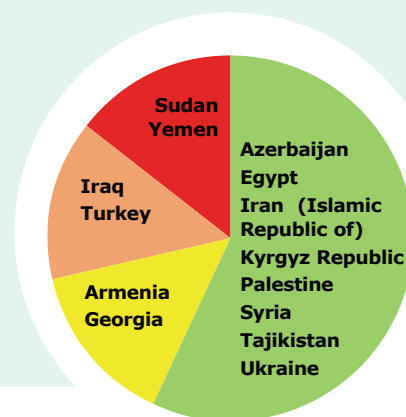
**Hotspots:** The impact of staple food price changes on the cost of the basic food basket in Q1-2018 was severe in the **Sudan and Yemen**; high in **Turkey and Iraq**; moderate in **Armenia and Georgia**; and low in the remaining countries.

• **Staple commodity prices:** The prices of main cereals skyrocketed from Q4-2017 across all states of the **Sudan** (+57% sorghum; +43% millet) and reached **ALPS crisis** level in all monitored markets. Demand for cereals has increased steadily since January as households use them as substitutes for imported products; meanwhile, cereal supplies shrank in 2017 after farmers switched to more profitable crops. In **Yemen**, the recent re-opening of entry points for imports failed to provide relief to local food markets because severe damage to trade infrastructure, persistent insecurity and soaring transport costs prevent regular supply flows. Additional taxation at customs, increasing reliance on parallel exchange rate markets and speculative stock withholding were further burdens on the price of all staples compared to last quarter (+10% wheat; +12% sugar; +11% oil; +14% rice). In besieged areas of **Syria**, the conflict has pushed some traders to close their businesses and supplies are barely reaching local markets, with consequent price hikes from Q4-2017 in Aleppo (+68% sugar; +39% oil). Although prices in the Damascus area were relatively

stable in Q1-2018, continued air bombing devastated markets in eastern Ghouta, reducing market access and food availability to a minimum. The WFP Syria country office reports that bread prices in this area were nearly 30 times higher than in the rest of the governorate in January. Wheat flour prices followed mixed trends in **Iraq**, rising in Erbil (+31%), Qadissiya (+52%) and Kerbala (+11%) but decreasing elsewhere. In **Turkey**, the impact of currency depreciation on wheat and dairy import costs continued to drive up the quarterly nominal price for locally processed staples such as bread (+8%) and pasteurized milk (+13%). Food prices generally eased from Q4-2017 in **Egypt** (-4% pasta; -2% rice; -6% sugar) and **Tajikistan** (-9% sugar; -4% oil; -1% maize; -2% bread) as national currencies came back on track after recent steep depreciation.

• **Fuel prices:** In **Yemen**, fuel remained scarce and prices soared from Q1-2017 (+45% gasoline; +70% diesel). **Armenia** saw repeated fuel price hikes from Q4-2017 (+8.4% gasoline; +13% diesel) following an increase in excise tax on fuels.

• **Purchasing power:** Inflation spiralled in the **Sudan** (+27% q/q; +50% y/y), mostly triggered by the central bank's decision to devalue the pound and align it with the parallel market rate. The removal of subsidies for wheat – a widely consumed and mostly imported product – aggravated imported food inflation in January. Y/y inflation was also high in **Ukraine** (+13%), driven by changing food prices (+17%). **Iran's** national currency lost 11 percent of its value in Q4-2017 under the pressure of lower availability of foreign currency and the concerns about the country's competitiveness on export markets.



## Asia

**Hotspots:** The impact of staple food price changes on the cost of the basic food basket in Q1-2018 was severe in **Bangladesh**; high in **Indonesia, Myanmar and Viet Nam**; moderate in **Afghanistan, Cambodia, Pakistan, the Philippines and Thailand**; and low in the other countries.

• **Staple commodity prices:** The large-scale floods that hit **Bangladesh** in 2017 severely damaged agricultural infrastructure and paddy fields in north-western regions, reducing output: rice prices rose sharply in these areas from Q4-2017 (+33% Dhaka; +45% Khulna; +33% Rajshahi) because of dwindling local stocks. Basmati rice prices in **Pakistan** were much higher than last year in Balochistan (+48%) because of repeated production failures. In **Indonesia**, below-average rice supplies and rising prices during the harvest season (+5% from Q4-2017) led the government to open the country to imports. The price of emata rice was also on the rise from Q4-2017 in **Myanmar** (+5%); national authorities are supporting

the expansion of the export market while sustaining farmers by introducing minimum reference prices and tighter quality controls.

• **Fuel prices:** In **Pakistan**, fuel prices rose (+12% gasoline; +14% diesel) after national authorities revised cap prices upwards to follow the rising international quotation for crude oil.

• **Purchasing power:** Q/q inflation was low or negative in most countries of the region. In **Bangladesh**, the upward trend of rice prices caused by supply shortages was one of the main drivers of the 7 percent increase in the food CPI from Q1-2017. In **Sri Lanka**, y/y food inflation decelerated from the previous

quarter falling back to single digits (+7.2%) and helping to reduce y/y headline inflation to 5 percent. In **Thailand** the national currency appreciated steadily (+11% y/y) in response to a growing influx of foreign capital encouraged by attractive interest rates.



## Consumer Price Index and Exchange Rates

Region	Country	Quarterly and Yearly Changes in Q1-2018 (January to March)					
		Quarter-on-Quarter			Year-on-Year		
		General CPI	Food CPI	Currency (LCU/USD)	General CPI	Food CPI	Currency (LCU/USD)
Latin America and Caribbean	Bolivia	0.73%	0.78%	-0.01%	2.84%	3.33%	0.11%
	Colombia	1.50%		4.52%	3.40%		2.11%
	Costa Rica	0.90%	1.28%	-0.23%	2.41%	2.29%	-2.79%
	Dominican Republic	1.14%	2.29%	-2.66%	3.59%	4.79%	-4.55%
	Ecuador	0.35%	0.59%		-0.15%	-0.77%	
	El Salvador	0.34%			1.19%		
	Guatemala	0.46%		-0.40%	4.33%		0.91%
	Haiti	2.24%	2.05%	-2.58%	12.57%	12.47%	4.06%
	Honduras	1.44%	1.74%	-0.30%	4.42%	4.64%	-0.57%
	Nicaragua	1.66%	0.85%	-1.34%	4.99%	4.55%	-5.02%
	Panama	0.48%		0.00%	0.45%		0.00%
	Peru	0.49%		0.19%	0.93%		1.47%
Venezuela			-99.95%	8900.00%*		-99.95%	
Southern Africa	Angola	3.99%		-18.94%	21.68%		-18.95%
	Congo (DR)			-1.56%	48.85%*	49.9%*	-20.57%
	Lesotho		3.05%	13.88%		6.71%	10.61%
	Madagascar			-0.36%			-0.24%
	Malawi	9.92%	17.97%	0.18%	8.56%	10.29%	0.30%
	Mozambique	1.95%		-0.67%	3.27%		16.29%
	Namibia	1.95%		13.88%	3.54%		10.93%
	Swaziland			13.93%			10.74%
	Tanzania	2.33%	4.15%	-0.47%	3.97%	5.45%	-1.07%
	Zambia	2.93%	3.48%	2.06%	6.46%	5.00%	0.25%
Zimbabwe	0.86%			3.08%			
Central and Eastern Africa	Burundi	-2.70%	-6.10%	-0.65%	0.71%	-2.92%	-3.98%
	Djibouti		4.60%	0.18%		2.75%	0.36%
	Ethiopia	2.83%	0.41%	-2.02%	14.73%	19.61%	-17.35%
	Kenya	3.01%		1.48%	4.57%		1.44%
	Rwanda	-1.73%	-5.09%	-1.68%	-0.91%	-6.89%	-4.23%
	Somalia			-1.03%			-4.66%
	South Sudan	18.22%		-1.51%	116.74%		-40.73%
	Uganda	-0.08%	-3.97%	-0.44%	1.72%	2.04%	-1.48%
West Africa	Benin	-0.66%	-4.22%	5.31%	1.43%	0.64%	16.07%
	Burkina Faso	-0.52%	2.59%	5.31%	1.95%	3.50%	16.07%
	Cameroon			3.66%			11.55%
	Cape Verde	0.28%	0.70%	4.33%	0.92%	0.54%	15.40%
	Central African Republic			3.66%			11.55%
	Chad			3.66%			11.55%
	Côte d'Ivoire	0.52%		5.31%	0.03%		16.07%
	Gambia			-1.02%			-8.21%
	Ghana	3.39%	4.51%	-0.06%	10.45%	7.10%	-1.46%
	Mali	-1.05%	-3.29%	5.31%	2.10%	2.21%	16.07%
	Mauritania	-0.34%	10.56%	0.54%	2.65%	3.97%	1.02%
	Niger		0.40%	5.31%		6.27%	16.07%
	Nigeria	2.26%	2.38%	4.80%	14.24%	17.51%	1.64%
	Senegal	-0.40%	1.11%	5.31%	0.70%	1.77%	16.07%
Middle East, North Africa and Central Asia	Algeria	0.41%		0.65%	2.54%		-3.65%
	Armenia	4.23%	8.65%	0.35%	3.12%	4.23%	0.98%
	Azerbaijan	-1.47%	4.33%	-0.19%	5.31%	5.72%	4.96%
	Egypt	0.64%	0.44%	0.33%	14.93%	13.90%	0.73%
	Georgia	1.54%	0.65%	4.47%	3.22%	4.00%	5.14%
	Iran	2.65%		-4.33%	8.34%		-11.31%
	Iraq			-0.96%			-0.16%
	Jordan	2.16%	0.16%	-0.04%	3.73%	0.15%	-0.07%
	Kyrgyzstan	1.77%		1.16%	3.15%		1.27%
	Lebanon	0.88%	1.83%	-0.14%	5.04%	3.52%	-0.12%
	State of Palestine	-0.60%	-0.96%		-1.14%	-3.49%	
	Sudan	27.30%		-54.82%	50.47%		-56.10%
	Syrian Arab Republic			-0.01%			0.00%
	Tajikistan	-0.41%	7.58%	-0.12%	-0.15%	5.82%	-9.68%
	Turkey	2.82%		-0.27%	10.28%		-3.11%
	Ukraine			-1.07%	13.2%*	17.3%*	-0.78%
	Yemen			-0.02%			-0.03%
	Asia	Afghanistan	0.61%	1.83%	-0.74%	2.85%	3.14%
Bangladesh		1.20%	1.08%	-0.50%	5.76%	7.33%	-3.90%
Cambodia				0.75%			-0.02%
India		-0.27%	-1.93%		4.59%	3.59%	3.99%
Indonesia		1.35%	4.16%	-0.30%	3.28%	3.53%	-1.72%
Laos				0.27%			-1.05%
Myanmar				1.86%			1.72%
Nepal				0.47%			4.59%
Pakistan		-0.02%	-2.49%	-4.39%	3.82%	3.15%	-5.78%
Philippines		1.85%	2.62%	-1.26%	3.82%	5.03%	-2.95%
Sri Lanka		0.07%	-3.77%	-0.86%	4.80%	7.17%	-2.56%
Timor-Leste		1.27%	0.92%		1.75%	1.23%	
Thailand		-1.09%		4.34%	-2.21%		11.24%
Vietnam		1.14%		-0.10%	2.82%		-0.13%

Source: Trading Economics.

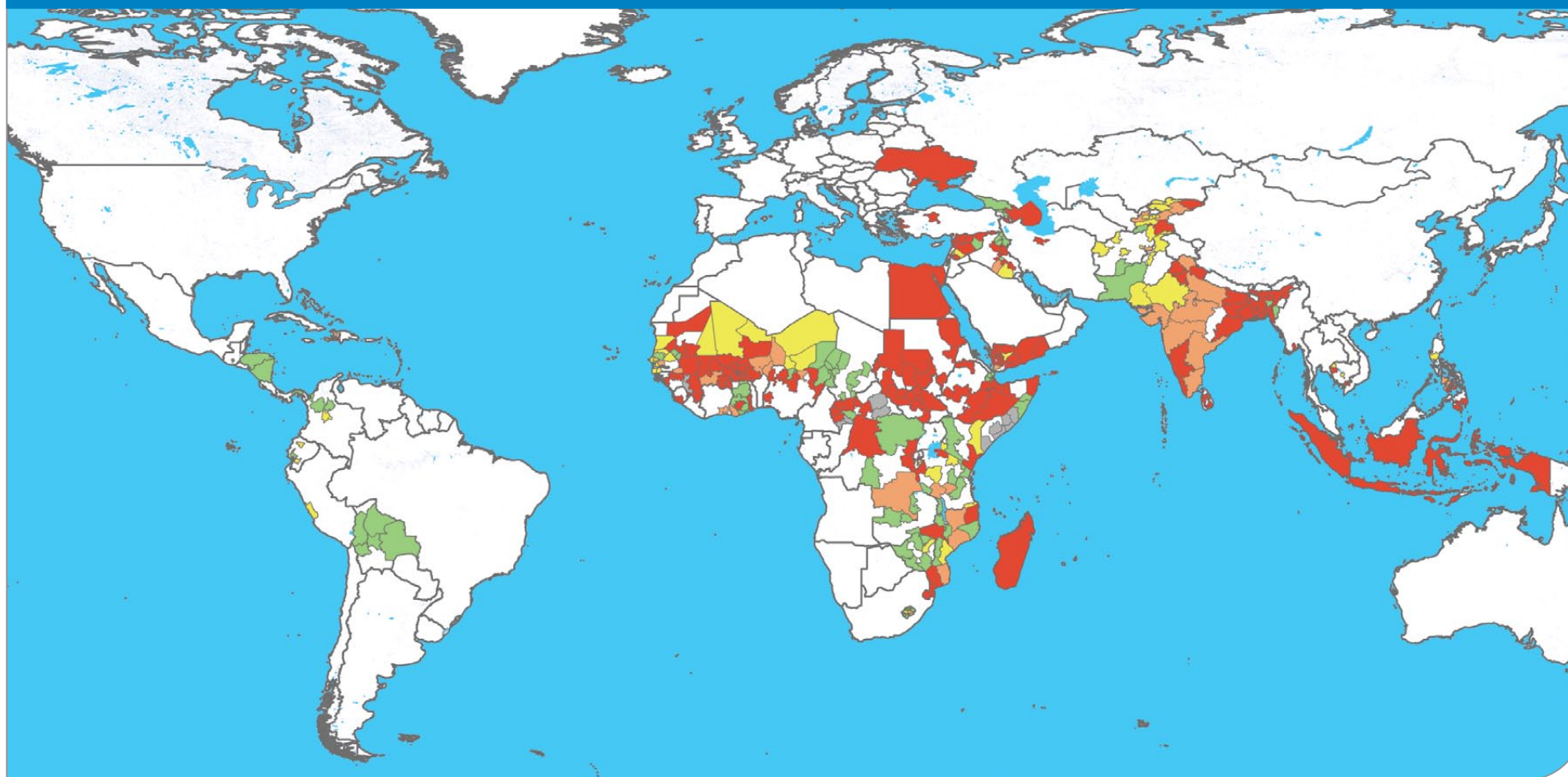
### Notes:

- The calculation of quarterly changes uses averages of indices.
- A negative value in the exchange rate indicates the depreciation of the national currency.

\* Where indices were not available, y/y changes are not based on quarterly average but on the inflation rate of the last month available.







# Impact of staple commodity price changes on the cost of the basic food basket

**Q1-2018** (January to March) vs. **Q1-Baseline** (Average January to March)



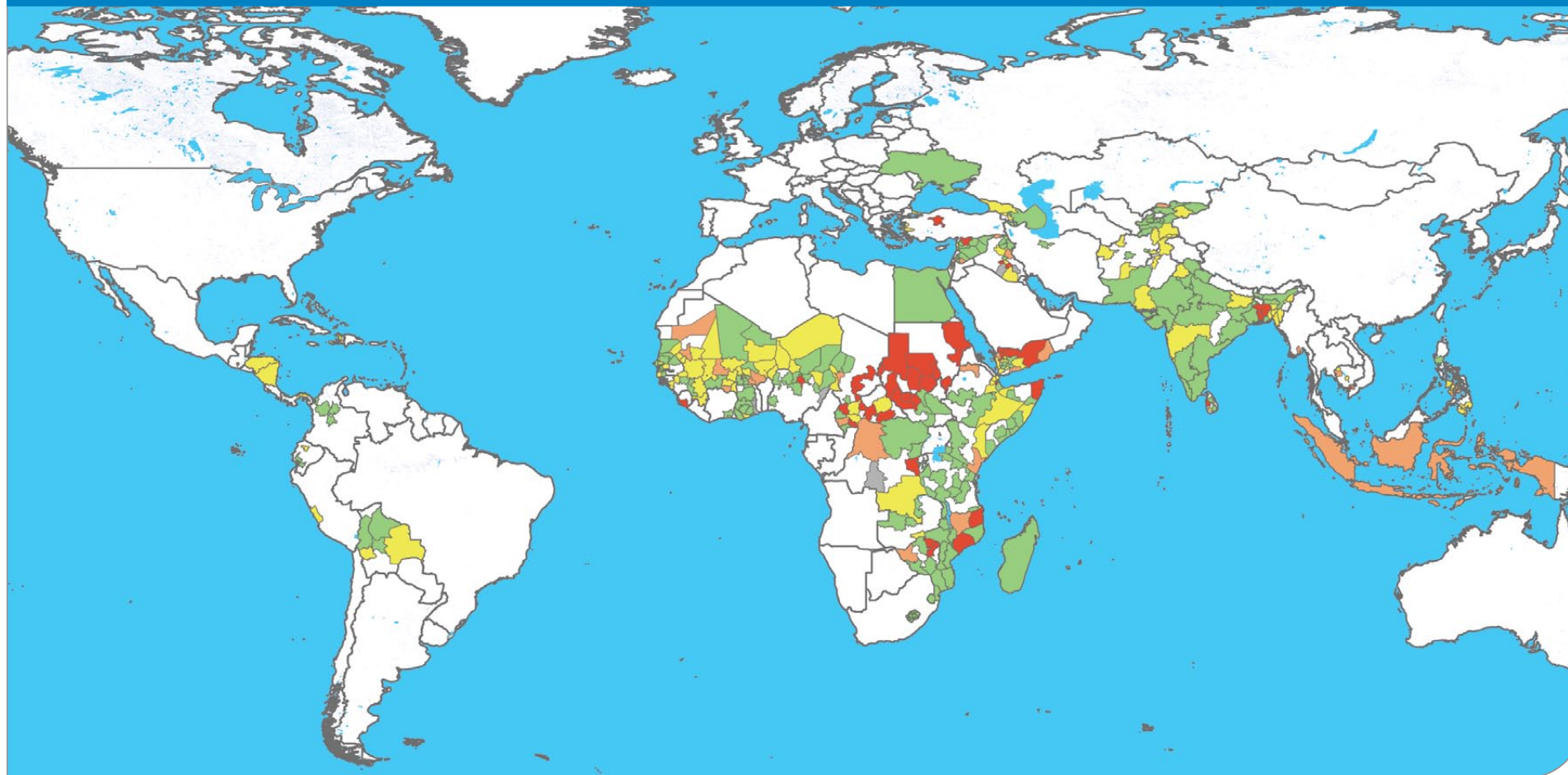
Map produced by: VAM - Food Security Analysis (OSZAF). Source: WFP; Base Map: GAUL

**Impact Codes**

 Low (< 0%)	 Moderate (0-5%)	 High (5-10%)	 Severe (> 10%)	 Monitored but without baseline data	 Water bodies
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**Note:** This map is based on the calculations at subnational level of column M of the table on pages 8-13. Baseline prices are from Q1 2013-2017.

# Q1-2018 (January to March) vs. Q4-2017 (October to December)



Map produced by: VAM - Food Security Analysis (OSZAF). Source: WFP; Base Map: GAUL

**Impact Codes**

 Low (< 0%)	 Moderate (0-5%)	 High (5-10%)	 Severe (> 10%)	 Monitored but without data from the last quarter	 Water bodies
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**Note:** This map is based on the calculations at subnational level of column L of the table on page 8-13.

### Magnitude of quarterly price changes and their impacts on the cost of the food basket, by country and commodity

Region	Country	Main staple food	Caloric contribution (%)	Change from last quarter (% change)	Seasonally adjusted quarterly change (% change)	Monthly change from last year (% change)	Quarterly change from last year (% change)	Quarterly change from baseline (% change)	Change	Price trend	Quarterly cost share in food basket (%)	Impact		# of years in baseline (the last 5 years) [* see footnote]
									< 0%	Decreasing		Low		
									>= 0% and < 5%	Stable		Moderate		
>= 5% and < 10%	Slightly increasing	High												
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
Latin America and Caribbean	Bolivia	Wheat (flour, imported)	19	-3	+2	-6	-8	-20	→	73	-2	-18	5	
		Maize (yellow)	13	-9	-13	-24	-22	-11	↓	27			5	
	Colombia	Maize (white)	13	0	-1	0	0	+9	↓	26			5	
		Sugar	13	-2	-7	-8	-7	+15	↓	33	-3	+3	5	
		Rice (paddy)	12	0	-7	-11	-14	-19	↓	19			5	
		Bananas	5	+5	+5	-8	-3	+5	↗	23			5	
	Dominican Republic	Rice (first quality)	17	-1	-2	0	0	+2	↓	100	-2	+2	5	
	Ecuador	Rice (long grain)	19	-3	-4	+1	0	+1	↓	76	0	+1	5	
		Wheat (flour)	13	0	+9	-3	-3	-1	↗	24			4	
	Guatemala	Maize (white)	36	-1	-5	-1	-2	-14	↓	100	-5	-14	5	
	Haiti	Rice (local)	23	+6	+6	+24	+23	+27	↗	45			2	
		Wheat flour (imported)	12	+2	0	-1	-1	+12	→	15			5	
		Sugar (white)	11	-2	-1	-5	-5	-1	↓	24	+2	+15	2	
		Maize meal (local)	9	+6	-1	+2	-1	+15	↓	9			5	
		Oil (vegetable, imported)	7	+3	+2	+7	+7	+20	→	8			5	
	Honduras	Maize (white)	26	+11	+2	+19	+12	-9	→	47			5	
		Beans (red)	5	+3	+11	+10	+15	+7	↑	31	+4	-5	5	
		Rice (milled 80-20)	5	-4	-3	-16	-6	-11	↓	23			5	
	Nicaragua	Rice (milled 80-20)	17	0	0	-2	-2	-5	→	29			4	
		Sugar	15	-2	-3	0	0	-1	↓	20	+1	-4	4	
Bread		9	0	-1	-1	0	-3	↓	35			4		
Beans (red)		7	+5	+13	0	+2	-7	↑	16			4		
Panama	Rice (first quality)	24	0	0	0	0	-12	→	38			5		
	Bread	12	0	+2	0	0	-11	→	54	+1	-10	5		
	Maize	7	0	0	0	0	0	→	9			5		
Peru	Bread (french type)	14	0	0	+1	+1	+2	→	100	0	+2	5		

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 14.



Region	Country	Main staple food	Caloric contribution (%)	Change from last quarter (% change)	Seasonally adjusted quarterly change (% change)	Monthly change from last year (% change)	Quarterly change from last year (% change)	Quarterly change from baseline (% change)	Price trend	Quarterly cost share in food basket (%)	Cumulative impact of changes on cost of food basket		# of years in baseline (the last 5 years) [* see footnote]
											from previous quarter	from baseline (%)	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Southern Africa	Congo (DR)	Cassava (cossette)	53	-19	-19	-34	-39	-22	↓	78	-19	-16	5
		Maize	14	-22	-24	-23	-26	+5	↓	9			
		Oil (palm)	5	-2	-6	+29	+22	+24	↓	4			
		Wheat flour	5	+6	+2	+7	+17	+10	→	10			
	Lesotho	Maize meal	56	-6	-7	-26	-26	-11	↓	50	-5	-1	5
		Bread (brown)	14	0	-1	0	0	+12	↓	50			
	Madagascar	Rice (imported)	49	-1	-4	+5	+9	+31	↓	100	-4	+31	3
	Malawi	Maize	53	+6	-12	-55	-52	-34	↓	100	-12	-34	5
	Mozambique	Cassava flour	32	+1	+7	-27	-35	-20	↗	37	-5	-6	3
		Maize (white)	20	+5	-6	-55	-57	-32	↓	12			
		Wheat flour (local)	9	-8	-13	-17	-19	+16	↓	20			
		Rice (imported)	8	+2	+2	-8	-6	+37	→	20			
		Oil (vegetable, imported)	5	-15	-40	-33	-33	+2	↓	11			
	Swaziland	Maize (white)	25	0	-12	0	0	+19	↓	21	-5	+17	5
		Wheat flour	16	-4	-4	-4	-3	+4	↓	33			
		Sugar (brown)	11	-2	-3	+13	+11	+40	↓	27			
		Rice	8	-2	-2	-1	+3	+16	↓	18			
Tanzania	Maize	26	-7	-17	-55	-52	-28	↓	30	-8	-1	5	
	Rice	10	+3	-2	+12	+16	+21	↓	47				
	Beans	5	+1	-3	-2	0	+15	↓	23				
Zambia	Maize (white)	51	+2	-8	-43	-35	-16	↓	100	-8	-16	5	
Zimbabwe	Maize	41	+17	+1	-14	-18	-21	→	100	+1	-21	5	

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 14.

Region	Country	Main staple food	Caloric contribution (%)	Change from last quarter (% change)	Seasonally adjusted quarterly change (% change)	Monthly change from last year (% change)	Quarterly change from last year (% change)	Quarterly change from baseline (% change)	Price trend	Quarterly cost share in food basket (%)	Cumulative impact of changes on cost of food basket		# of years in baseline (the last 5 years) [* see footnote]
											from previous quarter	from baseline (%)	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Central and Eastern Africa	Burundi	Sweet potatoes	17	-15	-14	-7	+3	+68	↓	55	-20	+25	5
		Beans	16	-24	-24	-37	-37	-12	↓	19			5
		Cassava flour	13	-16	-22	-33	-24	+15	↓	15			5
		Maize (white)	13	-38	-35	-55	-42	-9	↓	12			5
	Djibouti	Pasta	34	+1	+5	+1	-5	-16	↗	61	+3	-13	5
		Rice (imported)	17	0	+2	-1	-3	-9	→	23			5
		Sugar	11	-2	-1	-9	-11	-8	↓	16			5
	Ethiopia	Maize (white)	21	-5	-3	+20	+27	+57	↓	28	-4	+41	5
		Pasta	12	0	-3	+20	+20	+18	↓	45			4
		Sorghum	12	-6	-5	+23	+37	+80	↓	27			5
	Kenya	Maize (white)	35	0	+4	+7	+2	+4	→	28	-2	+1	5
		Bread	9	0	-4	-12	-12	-9	↓	19			5
		Milk (cow, pasteurized)	7	-2	-7	-5	-6	+3	↓	54			5
	Rwanda	Beans	11	+6	+19	+1	+3	+19	↑	74	+11	+23	5
		Maize	5	-7	-10	-26	-6	+35	↓	26			5
	Somalia	Sorghum (red)	29	-15	-11	N/A	N/A	+12	↓	73	-8	+11	2
		Rice (imported)	9	-2	-1	+12	+16	+9	↓	27			5
South Sudan	Sorghum (white, imported)	26	+8	+1	+57	+42	+372	→	43	+7	+368	5	
	Wheat flour	15	+9	+19	+66	+64	+365	↑	57			4	
Uganda	Maize	9	-6	-9	-54	-44	-11	↓	100	-9	-11	5	

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 14.

Region	Country	Main staple food	Caloric contribution (%)	Change from last quarter (% change)	Seasonally adjusted quarterly change (% change)	Monthly change from last year (% change)	Quarterly change from last year (% change)	Quarterly change from baseline (% change)	Price trend	Quarterly cost share in food basket (%)	Cumulative impact of changes on cost of food basket		# of years in baseline (the last 5 years) [* see footnote]
											from previous quarter	from baseline (%)	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
West Africa	Burkina Faso	Sorghum	26	+4	+6	+21	+21	+19	↗	41			5
		Millet	22	-2	+2	+22	+25	+27	→	39	+4	+20	5
		Maize	16	+4	+5	+15	+13	+11	↗	20			5
	Cameroon	Maize	15	-10	-4	+9	0	-14	↓	36			5
		Rice (local)	10	+7	+12	+13	+9	-9	↑	47	+1	-13	5
		Sorghum (white)	8	-24	-12	-1	-8	-18	↓	17			5
	Cape Verde	Rice (long grain, imported)	19	+1	+3	+8	+2	-7	→	42			5
		Wheat (flour, imported)	13	-1	-3	N/A	-5	-12	↓	20	0	+4	5
		Maize (white, local)	12	-1	+5	N/A	+7	+34	↗	38			5
	Central African Republic	Cassava (cossette)	18	+4	+28	-3	-3	-20	↑	72	+27	-16	3
		Maize	13	+4	+39	-26	-26	-1	↑	28			3
	Chad	Sorghum (red)	18	+2	+3	+5	+9	-5	→	45	0	-8	5
		Millet	15	-1	+5	+15	+14	-11	↗	41			5
		Maize (white)	5	-9	-9	+8	+10	-9	↓	14			5
	Côte d'Ivoire	Rice (imported)	20	-1	0	-4	-3	-2	→	14			5
		Yam	20	-5	-26	-20	-13	+7	↓	63	-15	+6	5
		Attikié	12	+15	+10	+9	+8	+10	↑	24			5
	Ghana	Cassava	21	-5	-13	-41	-42	0	↓	27			5
		Maize	12	+7	-3	+24	+29	+35	↓	13	-13	+2	5
		Yam	11	+4	-10	-33	-24	+14	↓	38			5
	Guinea	Rice (imported)	8	-9	-15	-22	-23	-22	↓	21			3
		Rice (imported)	37	0	-1	+4	+11	+16	↓	62			5
		Cassava meal (gari)	12	+2	+5	+40	+27	+30	↗	20	0	+16	3
		Oil (vegetable)	7	0	N/A	N/A	N/A	N/A	→	11			*
		Oil (palm)	6	-6	-9	-7	-9	-6	↓	7			5
	Guinea-Bissau	Rice (imported)	35	+9	+20	-1	+12	-6	↑	56			5
		Oil (vegetable, imported)	11	0	+1	+1	+1	+1	→	16	+4	-10	5
		Fonio	8	-23	-21	-36	-34	-28	↓	20			4
		Sugar	5	-8	-10	-15	-13	-8	↓	9			4
	Mali	Rice (imported)	21	0	-2	+2	+5	+4	↓	46			5
		Millet	20	-3	+3	+21	+21	+21	→	27	+1	+12	5
		Sorghum	13	+1	+5	+24	+21	+22	↗	18			5
	Mauritania	Maize	9	+1	+3	+8	+6	+9	→	10			5
		Wheat	30	-3	-2	+8	+7	-5	↓	28			5
		Sugar	12	-1	+3	-8	-9	+5	→	18			5
		Oil (vegetable)	11	0	-1	-2	-1	-3	↓	13	+4	+11	5
		Rice (imported)	11	+1	-2	+9	+6	+17	↓	23			5
	Niger	Sorghum (taghalit)	7	+16	+30	+72	+74	+67	↑	18			5
		Millet	39	+3	+1	-1	+4	+6	→	60	+1	+4	5
		Sorghum	11	-3	+1	0	+4	+8	→	18			5
	North Nigeria	Rice (imported)	7	-1	+1	+2	+2	-2	→	22			5
		Sorghum (brown)	13	-10	-7	-20	-24	+29	↓	26			3
		Millet	11	-1	-6	-19	-22	-13	↓	22	-6	-1	5
		Maize (white)	8	+4	-9	-31	-31	+15	↓	13			3
		Rice (imported)	8	0	-1	-9	-11	-10	↓	40			5
	Senegal	Rice (imported)	30	0	-1	+2	+2	+4	↓	70			5
		Maize (imported)	10	-4	+2	+5	+2	0	→	17	-2	+2	5
Millet		8	-17	-13	-4	-4	-3	↓	13			5	
Sierra Leone	Rice (imported)	40	-2	+3	-2	-2	+19	→	75			4	
	Cassava	9	+2	+21	+35	+39	+54	↑	12	+1	+20	4	
		Oil (palm)	9	-7	-16	-12	-14	+3	↓	13			4

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Region	Country	Main staple food	Caloric contribution (%)	Change from last quarter (% change)	Seasonally adjusted quarterly change (% change)	Monthly change from last year (% change)	Quarterly change from last year (% change)	Quarterly change from baseline (% change)	Price trend	Quarterly cost share in food basket (%)	Cumulative impact of changes on cost of food basket		# of years in baseline (the last 5 years) [* see footnote]
											from previous quarter	from baseline (%)	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Middle East, North African and Central Asia	Armenia	Bread (first grade flour)	40	+6	+8	+11	+11	0	↗	46	+1	-3	5
		Milk	8	-3	-4	-14	-13	-6	↓	38			
		Sugar	8	-4	-5	+1	+1	0	↓	6			
		Potatoes	5	+7	+4	+24	+15	-1	→	9			
	Azerbaijan	Bread (high grade flour)	57	0	-3	+1	+1	+22	↓	74	-4	+14	5
		Potatoes	6	+10	-5	+1	0	-4	↓	26			
	Egypt	Pasta	35	0	-4	0	0	+49	↓	58	-6	+56	5
		Rice	12	+4	-2	+11	+9	+52	↓	22			
		Sugar	7	0	-6	-3	+1	+89	↓	20			
	Georgia	Bread	41	+2	+2	+3	+3	+6	→	43	+2	-3	5
		Milk (raw)	10	+2	+2	+3	+1	-9	→	57			
	Iran (Islamic Republic of)	Rice (local)	9	0	-2	-2	+1	+51	↓	76	-2	+43	5
		Sugar	9	0	-1	-10	-11	+22	↓	24			
	Iraq	Wheat flour	25	+14	+17	+3	+1	+40	↑	65	+7	+17	4
		Rice	8	-3	-6	+7	+3	-10	↓	35			
	Kyrgyz Republic	Bread	40	-1	-3	-2	-2	0	↓	40	-1	+5	5
		Milk (non-pasteurized)	12	+7	+1	+7	+8	+5	→	36			
		Sugar	9	-4	-4	-12	-14	-11	↓	6			
		Potatoes	8	+10	-4	-2	+15	+25	↓	18			
	Palestine	Bread	40	-2	-1	+2	-1	-8	↓	57	-1	-6	3
		Sugar	10	-2	-1	-9	-9	-4	↓	11			
		Rice (small grain, imported)	7	+3	+2	-6	-7	-9	→	11			
		Oil (olive)	5	+2	N/A	0	+1	+1	→	21			
	Sudan	Sorghum	60	+56	+57	+117	+112	+160	↑	83	+55	+164	5
		Millet	9	+42	+43	+112	+123	+184	↑	17			
	Syria	Sugar	13	-19	-17	-55	-55	-2	↓	55	-14	+12	5
		Oil	11	-16	-9	-27	-27	+36	↓	45			
	Tajikistan	Bread	54	-2	-2	-6	-5	+15	↓	91	-2	+15	5
		Sugar	7	-8	-9	-3	-3	+16	↓	5			
		Oil (cotton)	6	-2	-4	+3	+4	+17	↓	3			
Maize		5	+2	-1	+4	+10	+18	↓	1				
Turkey	Bread (common)	41	+8	N/A	+15	+16	+16	↗	64	+9	+18	*	
	Sugar	8	-1	N/A	+8	+4	+4	↓	8				
	Milk (pasteurized)	5	+13	N/A	+32	+28	+28	↑	28				
Ukraine	Wheat	29	+6	-10	+11	+12	+61	↓	100	-10	+61	5	
	Wheat	38	+13	+10	+12	+15	+33	↑	45				
Yemen	Sugar	12	+10	+12	+8	+7	+29	↑	21	+12	+42	5	
	Oil (vegetable)	9	+8	+11	+16	+18	+11	↑	10				
	Rice (imported)	6	+17	+14	+45	+46	+116	↑	24				

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 14.

Region	Country	Main staple food	Caloric contribution (%)	Change from last quarter (% change)	Seasonally adjusted quarterly change (% change)	Monthly change from last year (% change)	Quarterly change from last year (% change)	Quarterly change from baseline (% change)	Price trend	Quarterly cost share in food basket (%)	Cumulative impact of changes on cost of food basket		# of years in baseline (the last 5 years) [* see footnote]
											from previous quarter	from baseline (%)	
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Asia	Afghanistan	Bread	58	0	0	-1	-1	+1	→	77	+1	+2	4
		Rice (low quality)	22	+2	+1	+3	+6	+5	→	23			
	Bangladesh	Rice (coarse)	70	+37	+35	+15	+14	+29	↑	93	+33	+27	5
		Wheat flour	6	+7	+8	+11	+10	-1	↗	7			
	Cambodia	Rice (mix)	65	-1	+2	+4	+8	+4	→	100	+2	+4	5
	India	Rice	31	0	0	+4	+5	+12	→	52	-2	+12	5
		Wheat	22	0	-2	0	0	+13	↓	33			
		Sugar	7	-7	-6	-5	-3	+12	↓	15			
	Indonesia	Rice	50	+8	+5	+10	+10	+18	↗	100	+5	+18	5
	Myanmar	Rice (emata, medium)	55	+5	+5	+12	+14	+45	↗	100	+5	+45	5
	Pakistan	Wheat	37	+3	-1	0	0	-4	↓	19	+1	+1	4
		Sugar	11	-4	+3	-15	-16	-7	→	7			
		Milk	9	0	+1	+1	+1	+3	→	59			
		Oil (cooking)	9	+1	-1	+1	+2	-6	↓	9			
		Rice (basmati, broken)	6	+4	+3	+21	+22	+13	→	7			
	Philippines	Rice (regular milled)	48	0	0	+2	+5	+8	→	100	0	+8	5
	Sri Lanka	Rice (long grain)	41	-12	-21	+12	-2	+9	↓	74	-16	+6	3
Wheat flour		14	+1	+1	+1	+1	-2	→	26				
Thailand	Rice (25% broken)	48	+3	+4	+1	0	-9	→	100	+4	-9	5	
Timor-Leste	Rice (imported)	32	0	-2	+23	+23	+30	↓	51	-1	+16	4	
	Maize	26	0	-1	0	0	+4	↓	49				
Viet Nam	Rice (20% broken)	59	+5	+9	+25	+22	+16	↗	100	+9	+16	5	

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 14.



## Approach

This bulletin examines price changes for staple food items and their impact on the cost of the basic food basket. For the most vulnerable population groups in developing countries, food often represents over 50% of total household expenditures, and staples contribute 40-80% of energy intake. Any change in staple food prices therefore has a big impact on overall food consumption, especially when the food basket is composed of very few items.

Monitoring the percentage changes of quarterly prices reveals whether recent changes are normal or abnormal when compared to a reference period (e.g. the previous quarter, the previous year or the baseline period).

Column D shows **what each food item contributes to total household energy intake**. The analysis is based on quarterly price<sup>1</sup> changes of the main food items (those that contribute at least 5% of caloric intake<sup>2</sup>):

- i) **"Change from last quarter"** (column E) shows how far quarterly nominal prices have changed from the previous quarter (percentage change).
- ii) **"Seasonally adjusted quarterly change"** (column F) shows how far quarterly prices have changed from the previous quarter, once prices have been adjusted for seasonality (percentage change). This indicator is calculated by dividing each monthly nominal price by its corresponding baseline average price.<sup>3</sup>
- iii) **"Monthly change from last year"** shows how the monthly nominal price has changed from the same month in the previous year (percentage change). The indicator reflects the data for the latest available month of the last quarter.
- iv) **"Quarterly change from last year"** (column H) is the percentage change of the quarterly nominal prices.
- v) **"Quarterly price change from baseline"** (column I) shows how far quarterly prices have changed from baseline average prices<sup>4</sup> (percentage change).

### How the impact on the cost of the food basket is assessed

The **'cumulative impact of the quarter'** (column L) shows the partial (known) change in the total cost of the food basket since the previous quarter. The **'cumulative impact from the baseline'** (column M) shows the change from the baseline. This approach seeks to derive the quantities of food consumed from the caloric contribution of each item in order to estimate the cost of the food basket and from there, the impact of price changes.

The impact calculation assumes that each food basket provides 2,100 kcal a day, and that the proportional caloric contribution is a proxy of the relative importance of the item in the food basket. It comprises the following calculations:

a) the total food basket energy is multiplied by the proportion of each item to give the absolute energy (in kcal) each item contributes to the total energy intake; b) each item's absolute energy is divided by its caloric density<sup>5</sup> to give the weight of that item in the food basket; and c) each item's weight is multiplied by its unit nominal/seasonally adjusted price to calculate the relative cost of each food basket item.

Costs are only calculated for energy contributors for which prices are available. To avoid bias, the other energy contributors that fill the gap to 2,100kcal are ignored. Thus, the total cost of the known part of the food basket is the sum of the itemized commodity costs (step c).

The **'quarterly cost share of food basket'** (column K) indicates the proportion each item represents in the total cost of the known food basket. The cumulative impact values are then calculated by comparing the seasonally adjusted cost<sup>6</sup> of the food basket with the cost in the previous quarter (column L) and against the baseline period (column M), as percentage changes. The likely impact is considered low when the percentage change is below 0, moderate when it is between 0 and 5%, high between 5 and 10%, and severe above 10%.

For further details on this approach, please visit <http://www.wfp.org/content/price-analysis-methods>

1. Prices are calculated as indices, using reference years. 'Last year' captures 12-month percentage changes, and 'last 5 years' captures percentage changes from long-term patterns.
2. Caloric contributions are based on FAO 2005-2007 estimates.
3. The baseline is an average of prices for the last five years of the same month. Note that this indicator requires a minimum two years' worth of data (see column N).
4. See note 3 above.
5. Caloric densities are based on NutVal 4.0 estimates.
6. For countries where seasonally adjusted prices cannot be derived, the nominal food basket cost is considered to measure the impact.

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