



# 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 71 countries in the first quarter of 2016 (January to March).<sup>1</sup> The maps on pages 6–7 disaggregate the impact analysis to sub-national level.

### Global Highlights

- During Q1-2016, **FAO's global cereal price index fell by 14 percent year-on-year thanks to ample supplies and stock positions.** The index is now at levels last seen in early 2007. The FAO global food price index is 15 percent lower than in Q1-2015.
- **The real price<sup>2</sup> of wheat has fallen by 22 percent over the past year and is 3 percent below Q4-2015 levels.** This is because world production is still at record levels, and ending stocks in March were 9 percent greater than those in 2014/15.
- **The real price of maize came under pressure in Q1-2016 and is 9 percent lower than last year.** Global supplies are abundant and export competition is high.
- During Q1-2016, **the real price of rice remained constant compared to Q4-2015.** It is down 15 percent from Q1-2015.
- In Q1-2016, **the real price of crude oil dropped by 23 percent to its lowest level since 2004.** The drop has been largely supply driven. Prices started to pick up after January.
- **The cost of the minimum food basket increased severely (>10%) in Q1-2016 in eight countries:**

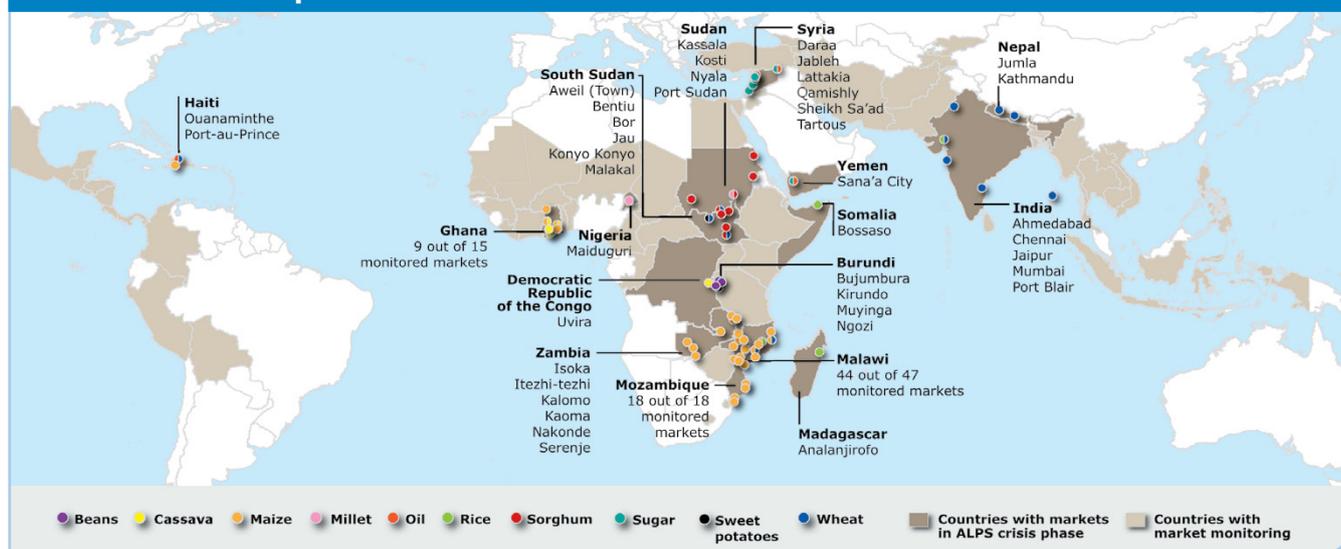
**Burundi, Republic of Congo, Ghana, Lao PDR, Malawi, South Sudan, Swaziland and Viet Nam.** High increases (5–10%) were seen in **Costa Rica, Iran, Mozambique, Myanmar, Nepal, Sudan, Thailand and Zambia.** In the other monitored countries, the change was *moderate* or *low* (<5%).

CHANGE OF REAL PRICES ADJUSTED FOR US CONSUMER PRICE INDEX (2005 = 100)

Quarterly Change	Maize	Wheat	Rice	Note: Comparison to
q1-2016 vs. q4-2015	-7%	-3%	0%	Fourth quarter in 2015
q1-2016 vs. q1-2015	-9%	-22%	-15%	Same quarter in 2015
q1-2016 vs. q1-2008		-60%		Global wheat price peak in 2008
q1-2016 vs. q2-2008	-44%		-65%	Global maize and rice price peak in 2008

- Price spikes, as monitored by **ALPS** (Alert for Price Spikes), were detected in 16 countries, particularly in **Burundi, Ghana, Haiti, India, Malawi, Mozambique, South Sudan, Sudan, Syria and Zambia** (see the map below).<sup>3</sup> These spikes indicate *crisis* levels for the two most important staples in each country, which could be beans, cassava, maize, millet, oil, rice, sorghum, sweet potatoes, sugar or wheat flour.

### 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 IMF Primary Commodity Prices as on 19 April 2016.

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

3. A market is designated as a hotspot if prices for the country's two most important caloric contributors reached ALPS crisis level during Q1-2016, 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 [ALPS 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 from January to March 2016 was high in **Costa Rica**; moderate in **Colombia, Haiti, Honduras, Nicaragua, Panama** and **Peru**; and low in **Bolivia** and **El Salvador**.

• **Staple commodity prices:** In **Haiti**, prices for local maize fell as expected in southern producing areas (-42% in Grand Anse; -26% in Sud) following the recent harvest. In the departments most affected by *El Niño*, 2015 crop losses reduced revenues and available inputs discouraging land preparation: as a result, maize supplies remained tight during Q1-2016 and maize prices rose in Nord Est (+33%) and Artibonite (+11%) in spite of better rainfall. In March, the **ALPS** indicator was at *crisis* level for maize in Port-au-Prince. In **Peru**, seasonally adjusted cereal prices were stable (+2% maize; -1% rice; +1% wheat flour); potato prices though continued to increase from Q4-2015 (+11%) as persistent dryness severely reduced yields. In **Nicaragua**, seasonally adjusted prices increased for maize (+10%) in Q1-2016 and were 30 percent higher than in Q1-2015, reflecting scarce supplies following the

drought in 2015. Quarterly red bean prices were also affected by below-average availability and prices rose in **Nicaragua** (+2%) and **Honduras** (+8%) despite the *postrera* harvest in December; however, they remained below Q1-2015 levels (-28% in **Nicaragua**; -27% in **Honduras**) as increased imports partially mitigated supply shortages.

• **Fuel prices:** Fuel prices fell following the downward trend in international oil prices. In **Nicaragua**, diesel prices decreased by 11 percent quarter-on-quarter (q/q) and by 15 percent year-on-year (y/y). In **Colombia**, q/q fuel prices went down moderately (-2.7% gasoline; -3.6% diesel) as did y/y prices (-8.1% diesel; -6.4% gasoline). In **Honduras**, q/q diesel prices were down by 8 percent; gasoline prices also saw a decline both from the previous quarter (-5.0%) and from Q1-2015 (-8.1%).

• **Purchasing power:** In **Haiti**, the Consumer Price Index (CPI) rose by 13.6 percent from Q1-2015 and y/y food inflation was 15.3 percent as the depreciation of the local currency (gourde) continued to drive up the price for imported goods and the persistent drought further reduced the availability of local produce. Dry weather conditions also accelerated the increase in y/y food prices in **Colombia** (+12.4%), the **Dominican Republic** (+6.5%) and **Guatemala** (+10.8%).



## Southern Africa

**Hotspots:** The impact of staple food price changes on the cost of the basic food basket during Q1-2016 was severe in **Congo, Malawi** and **Swaziland**; high in **Mozambique** and **Zambia**; moderate in **Congo (DR)** and **Lesotho**; and low in the other countries.

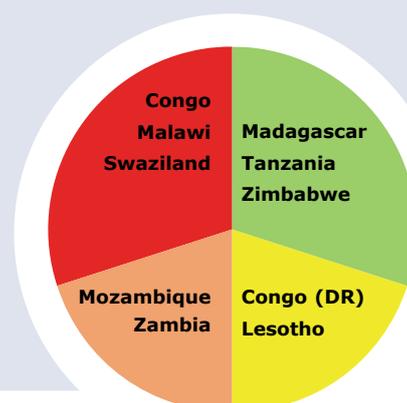
• **Staple commodity prices:** The harsh dryness associated with *El Niño* severely reduced food availability in several countries of the region. Seasonally adjusted cereal prices rose in **Swaziland** for maize (+55%) and rice (+16%). In **Malawi**, maize prices rose sharply from Q4-2015 in the central (+17%) and southern regions (+18%) and were more than double the prices in Q1-2015 due to deficits in the 2014/15 production cycle and the very poor prospects for the upcoming harvest in April–May. The **ALPS** indicator flagged nearly all monitored markets at either crisis or alert levels for maize in March. In **Mozambique**, crops struggled with erratic rains and stocks dwindled because of lower supplies from neighbouring countries: the seasonally adjusted price for maize skyrocketed in the south-western provinces (+59% in Gaza; +73% in Manica; +123% in Maputo) and

was at crisis level in all monitored markets according to **ALPS**. Prices for imported food also increased (+20% rice; +21% vegetable oil) despite a more stable Mozambican metical. In **Tanzania**, seasonally adjusted prices fell from the previous quarter in line with the *vuli* harvest season in January–February (-2% maize; -6% rice; -1% beans).

• **Fuel prices:** In **Tanzania**, q/q prices dropped for gasoline (-8.5%) and diesel (-12.6%) after the national energy regulator reduced fuel cap prices in line with falling international crude oil prices and the stabilization of the Tanzanian shilling. However, the price for gasoline remained 3 percent higher than in Q1-2015 because of the currency depreciation in 2015.

• **Purchasing power:** Crop failures caused by *El Niño* and currency devaluation generated inflationary pressures across the region. In

**Malawi**, food prices rose by 18.9 percent from Q4-2015 and by 29 percent y/y reflecting a severe deficit in food supplies and a weakening kwacha. In **Zambia**, energy rationing raised production costs, driving up the CPI (+22.3%) and food CPI (+26.1%) from last year. Y/y food inflation was moderate in **Lesotho** (+10.6%) and **Tanzania** (+9.5%).



## Central and Eastern Africa

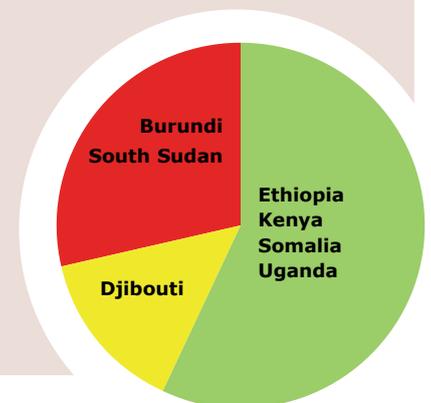
**Hotspots:** The cumulative impact of staple food price changes on the cost of the basic food basket from January to March 2016 was severe in **Burundi** and **South Sudan**; moderate in **Djibouti**; and low in the other countries of the region.

• **Staple commodity prices:** In **Uganda**, abundant rains at the end of 2015 favoured planting activities for the January–March harvest season: quarterly seasonally adjusted food prices fell (-12% maize; -12% cassava; -11% beans) as new supplies arrived in local markets. Above-average yields in **Somalia** reduced the price of local products (-4% maize; -3% sorghum) while localized deterioration of security conditions led to price increases for imported rice in Juba Dhexe (+5%) and Shabelle Hoose (+14%). Civil unrest, currency depreciation and a shortage of foreign currency and fuel – as well as the production effects of erratic rainfall – continued to disrupt trade in **South Sudan**: the seasonally adjusted prices for main staples skyrocketed from Q4-2015 (+60% sorghum; +63% wheat flour; +38% millet) despite the end of the harvest in January and were at record levels compared with Q1-2015 (+245% sorghum; +200% millet). In

March, the **ALPS** indicator was at crisis level for sorghum and wheat flour in all monitored markets. In **Burundi**, widespread insecurity discouraged October planting activities in preparation for the winter harvest season, driving up seasonally adjusted food prices in conflict-affected areas such as Muyinga (+17% sweet potatoes; +12% beans; +58% cassava flour), Kirundo (+31% sweet potatoes; +30% cassava flour) and Bujumbura (+35% sweet potatoes; +32% beans).

• **Fuel prices:** In **Ethiopia**, quarterly prices fell for gasoline (-5%) and diesel (-4.2%) after the reduction of fuel price caps in early February. The price of gasoline also decreased in **Kenya** from the previous quarter (-5.7%) and from Q1-2015 (-2.4%). The q/q price for diesel dropped dramatically in **South Sudan** (+57%) as the country is facing severe fuel shortages and unprecedented currency depreciation.

• **Purchasing power:** Q/q food inflation eased in **Ethiopia** (-4%), **Rwanda** (-3.4%) and **Uganda** (-4.7%); nevertheless, food prices remained higher than last year (+9.6% in **Ethiopia**; +9% in **Rwanda**; +11.4% in **Uganda**). In **South Sudan**, prices rocketed from the previous quarter (+56.3% CPI; +54.8% food CPI) and from Q1-2015 (+205% CPI; +227.8% food CPI): conflict-related insecurity and prohibitive transport costs pose a serious threat to trade flows across the country.



## West Africa

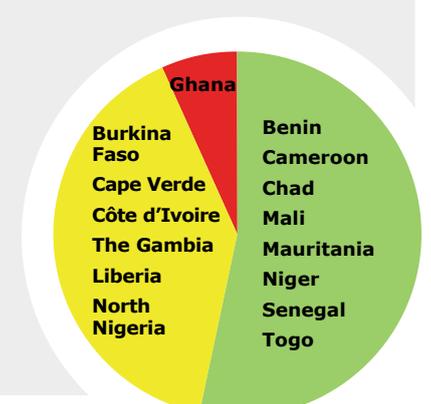
**Hotspots:** The impact of staple food price changes on the cost of the basic food basket from January to March 2016 was severe in **Ghana**; moderate in **Burkina Faso, Cape Verde, Côte d'Ivoire, the Gambia, Liberia** and **north Nigeria**; and low in the other countries.

• **Staple commodity prices:** In **Mali**, the beneficial effects of abundant rains on winter crops dragged down the seasonally adjusted price for cereals (-3% millet; -6% sorghum; -4% maize). Seasonally adjusted prices also fell from Q4-2015 in **Chad** (-16% sorghum; -10% millet), **Cameroon** (-26% cassava; -4% rice; -11% sorghum) and **Niger** (-5% millet; -5% sorghum; -3% rice), reflecting adequate supplies. In **Ghana**, delayed rainfall hampered the second cropping season and adjusted prices increased from Q4-2015 for yams (+27%) and cassava (+30%) during harvesting. In **the Gambia**, localized quarterly increases affected cereal prices in Central River (+22% millet; +93% sorghum), Upper River (+11% millet; +20% sorghum) and North Bank (+10% millet; +58% sorghum) where flooding limited market accessibility. Volatility of the local currency (dalasi) also drove up the price of imported food such

as palm oil (+2%), groundnut oil (+12%) and sugar (+5%). In **north Nigeria**, seasonally adjusted prices rose atypically in Q1-2016 for maize (+6% in Katsina; +10% in Sokoto) and for sorghum (+9% in Katsina; +3% in Sokoto); quarterly cereal prices increased sharply in Borno State (+40% sorghum; +33% millet) where Boko Haram attacks continue to generate insecurity and disrupt farming. Cross-border trade is in slight reprise and the price for imported rice fell from Q4-2015 (-14%) and from last year (-25%). In **Liberia**, palm oil prices edged up in coastal areas (+15% in Bomi; +16% in Bong); in Lofa they were 62 percent above 2015 levels.

• **Fuel prices:** In Borno, **north Nigeria**, fuel prices fell from Q4-2015 (-1.5% gasoline; -14.8% diesel) after the energy regulatory authority lowered ceiling prices in January. Y/y gasoline prices remain 1.8 percent higher than last year.

• **Purchasing power:** In **Ghana**, the protracted economic slowdown exacerbated the y/y increase in the CPI (+18.9%) despite tight monetary policy. Y/y headline inflation edged up in **Nigeria** (11.3%) as scarce foreign exchange reserves and the civil conflict had a detrimental impact on imports and on y/y food prices (+11.5%). Q/q food inflation eased in **Mali** (-6.4%), **Niger** (-6.4%) and **Senegal** (-4.2%) thanks to good production.



## Middle East, North Africa and Central Asia

**Hotspots:** The impact of staple food price changes on the cost of the basic food basket in Q1-2016 was high in **Iran and Sudan**; moderate in **Azerbaijan, Egypt, Jordan, Lebanon, Palestine, Tajikistan and Turkey**; and low in the remaining countries.

• **Staple commodity prices:** In Q1-2016, seasonally adjusted prices fell in **Armenia** (-4% bread; -10% potatoes; -8% milk; -3% sugar;) and the **Kyrgyz Republic** (-3% bread; -21% potatoes) thanks to a good harvest and the decline in export quotations from major suppliers. In **Syria**, the seasonally adjusted price for subsidized (bakery) bread was 9 percent lower than in Q4-2015 but was nearly double last year's price (+91%). In besieged areas, clashes prevented supplies from reaching local markets; seasonally adjusted prices surged in Damascus (+36% sugar; +43% oil), Dara'a (+15% sugar; +70% oil) and Hassakeh (+69% sugar; +26% oil). In Deir Ezzor, seasonal prices fell during Q1-2016 for sugar (-52%) and oil (-45%) but remained far above Q1-2015 levels (+419% sugar; +373% oil). Although conflict continued to affect trade in **Yemen**, food availability improved in local markets and seasonally adjusted prices decreased from Q4-2015 (-21% wheat flour; -4%

sugar; -14% vegetable oil) thanks to growing imports and new crops harvested in January. In **Sudan**, prices rose from Q4-2015 after *El Niño* damaged the winter harvest (+4% millet; +5% sorghum). Sorghum prices were markedly higher than last year in Kassala (+66%), Red Sea (+42%) and Southern Darfur (+45%) and at crisis level in half of the monitored markets according to **ALPS**.

• **Fuel prices:** In **Algeria**, q/q prices rose sharply for gasoline (+28.6%) and diesel (+15.4%) as national authorities budgeted a fuel price increase to counteract lower revenues from energy exports. In **Syria**, diesel prices increased from the previous quarter (+14.8%) and from Q1-2015 (+11.3%). In **Yemen**, q/q fuel prices were in steep decline (-56.7% gasoline; -59.2% diesel) after supplies began to flow across the country again; however, prices remained above Q1-2015 levels (+44% gasoline; +33% diesel).

• **Purchasing power:** Q/q inflation decelerated in **Egypt** (+1.0% CPI; +0.9% food CPI) after national authorities expanded the list of commodities subject to price controls in November and increased interest rates. In **Jordan**, economic growth, a stronger dinar and lower fuel prices brought down food inflation from Q4-2015 (-3.9%) and from Q1-2015 (-3.3%). In **Azerbaijan**, q/q headline inflation was 10.6 percent and food inflation 14 percent due to the impact of a weaker currency on import prices.



## Asia

**Hotspots:** The impact of staple food price changes on the cost of the basic food basket from January to March 2016 was severe in **Laos PDR and Viet Nam**; high in **Myanmar, Nepal and Thailand**; moderate in **Cambodia, India, Pakistan and Sri Lanka**; and low in the remaining countries of the region.

• **Staple commodity prices:** In **Myanmar**, the 2015 flooding cut rice production by damaging lands and reducing seeds; with winter yields down to half the amount expected, the seasonally adjusted price for rice was 5 percent higher than in Q4-2015. The **ALPS** indicator was at *crisis* level for rice in Magway. Seasonally adjusted rice prices also increased moderately in **Cambodia** (+4%), **Thailand** (+5%) and **Viet Nam** (+10%). In **India**, seasonally adjusted sugar prices continued to rise from Q4-2015 (+18%) in the expectation that adverse weather conditions will reduce crop production. The introduction of duties on sugar imports drove up sugar prices in **Pakistan** (+12%) and **Sri Lanka** (+4%). Recent turmoil in southern regions of **Nepal** has made it

difficult for supplies to reach inner local markets, pushing up the seasonally adjusted price for rice from Q4-2015 in the central (+20%), eastern (+9%) and western regions (+7%) despite the harvest. The seasonally adjusted price for wheat increased by 7 percent ahead of the beginning of the harvest in March.

• **Fuel prices:** In Q1-2016, q/q fuel prices dropped in **Afghanistan** (-11% diesel), **Laos** (-7.6% gasoline; -9.2% diesel) and **Myanmar** (-3.2% diesel) in response to falling oil prices in the world market. In **Pakistan**, fuel prices fell significantly both q/q (-7.1% gasoline; -8.5% diesel) and y/y (-4% gasoline; -7.6% diesel) as the energy regulatory authority progressively slashed pump prices.

• **Purchasing power:** Quarterly changes in the CPI and the food CPI were low in most countries. General strikes in southern regions of **Nepal** continue to block cross-border trade and delay delivery of food and fuel. As a result, y/y food prices rose considerably (+13%), driving up headline inflation (+11%).



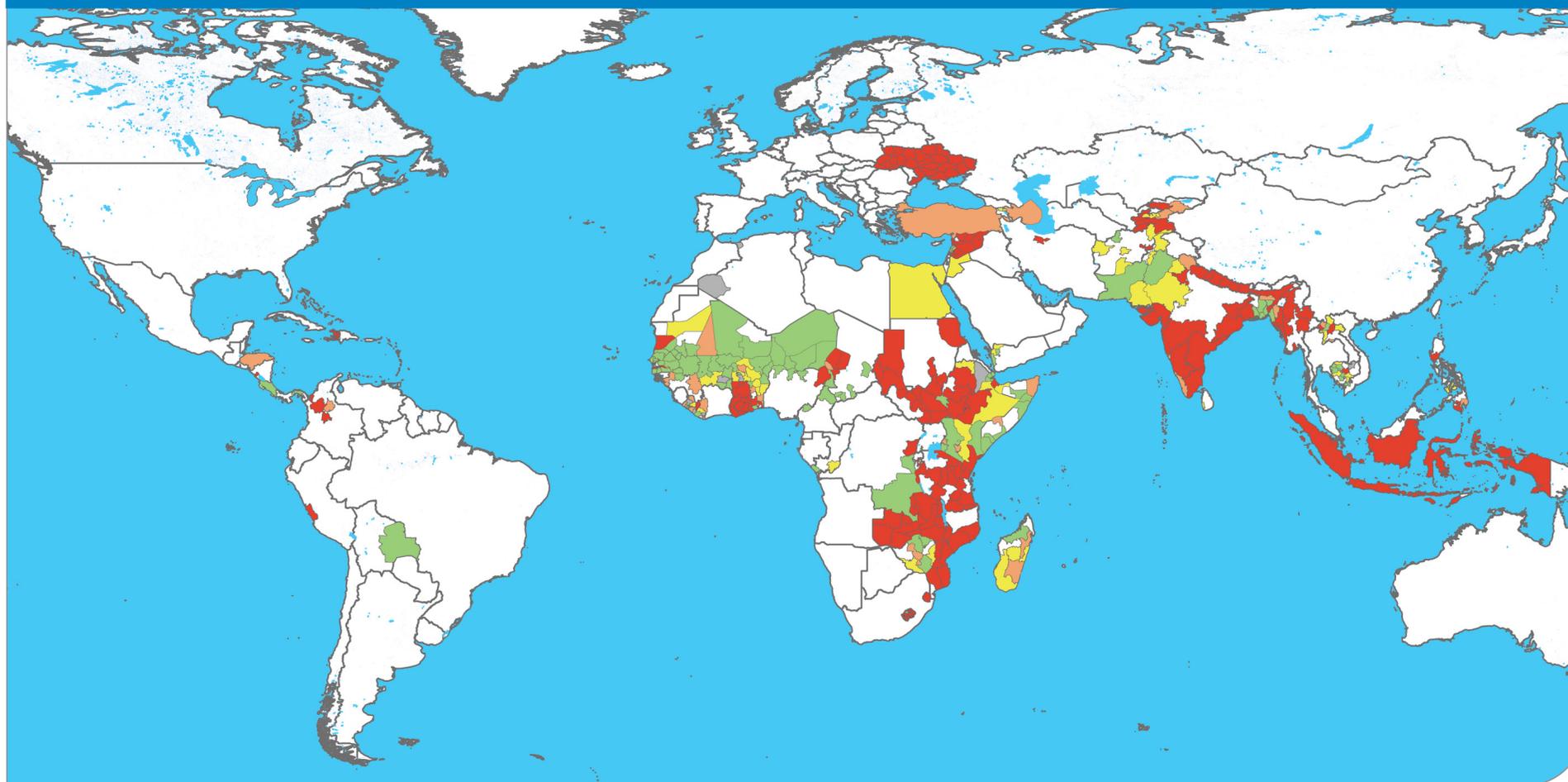
Consumer Price Index					
Region	Country	Quarterly and Yearly Changes in Q1-2016 (January-March)			
		Quarter-on-Quarter		Year-on-Year	
		General CPI	Food CPI	General CPI	Food CPI
Latin America and Caribbean	Bolivia	0.98%	0.87%	2.77%	2.26%
	Colombia	3.10%		7.67%	12.35%*
	Costa Rica	0.48%	2.49%	-0.29%	1.00%*
	Dominican Republic	-0.21%	0.08%	1.95%	6.52%
	Ecuador	0.56%	0.85%	2.67%	3.28%
	El Salvador	0.22%		1.54%	0.66%
	Guatemala	1.60%		4.33%	10.81%*
	Haiti	2.33%	2.59%	13.64%*	15.33%*
	Honduras	0.70%	0.47%	2.83%	0.21%
	Nicaragua	1.48%		3.43%	
Southern Africa	Panama	0.23%		0.22%	2.30%
	Peru	1.10%		4.46%	4.89%*
	Lesotho	1.18%	4.45%	5.98%*	10.60%*
	Madagascar	2.20%		6.78%*	
	Malawi	12.38%	18.86%	23.26%*	28.92%*
	Mozambique	8.50%		12.35%*	
	Tanzania	1.99%	3.49%	5.79%	9.46%
Central and Eastern Africa	Zambia	5.30%	6.76%	22.31%	26.14%
	Zimbabwe	-1.35%		-3.23%	
	Burundi	0.35%	-0.04%	5.76%	
	Ethiopia	0.62%	-3.95%	8.90%	9.61%
	Kenya	1.25%		7.02%	
	Rwanda	-1.35%	-3.35%	6.17%	8.98%
West Africa	South Sudan	56.29%	54.77%	204.96%	227.76%
	Uganda	-1.80%	-4.66%	6.93%	11.41%
	Benin	-1.47%	-2.79%	-0.28%	-0.58%
	Burkina Faso	-3.04%		-0.11%	
	Cape Verde	-1.15%	-1.20%	-1.22%	0.17%
	Chad	-1.55%		-2.59%	
	Côte d'Ivoire			0.60%	0.03%*
	Ghana	6.82%	7.49%	18.92%	8.27%
	Guinea	2.21%		7.45%*	
	Guinea-Bissau	-0.71%		3.01%*	
	Mali	-3.85%	-6.37%	-1.43%	-3.18%
	Mauritania	-4.60%	8.36%	-9.45%	0.95%
	Niger	-2.86%	-6.41%	0.91%	0.48%
Middle East, North Africa and Central Asia	Nigeria	4.08%	2.55%	11.25%	11.54%
	Senegal	-2.40%	-4.21%	1.10%	6.94%
	Armenia	0.33%	5.25%	-5.72%	-4.86%
	Azerbaijan	10.62%	14.06%	11.80%*	14.96%*
	Egypt	1.02%	0.88%	9.40%	12.63%
	Georgia	0.58%	-0.19%	5.07%	1.92%
	Iran	2.22%		8.64%*	
	Iraq	-2.37%	-5.41%	0.06%*	-0.45%
	Jordan	-1.36%	-3.91%	-1.19%	-3.29%
	Kyrgyzstan	0.41%		1.19%*	
	Lebanon	-2.41%	1.04%	-3.21%	-1.14%
	Palestine	-0.94%	-3.22%	0.67%	1.72%
	Sudan	1.91%		12.13%*	
	Tajikistan	5.90%		-1.29%	
Asia	Turkey	2.16%		8.60%	
	Afghanistan	1.93%		2.49%	
	Bangladesh	1.40%		5.78%	
	India	-0.13%	0.25%	5.26%	0.21%
	Indonesia	1.23%	4.16%	4.34%	7.60%*
	Laos	-0.49%		1.10%*	
	Nepal	0.48%	-1.82%	11.21%*	13.00%*
	Pakistan	-0.09%	-2.12%	3.77%	2.04%
Philippines	0.32%	0.51%	1.09%	1.60%	
Sri Lanka	-0.32%	-0.49%	1.87%	0.65%	

Note: The calculation of quarterly changes uses averages of indices.

\* 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

**Q1-2016** (January to March) vs. **Q1-Baseline** (Average January to March)



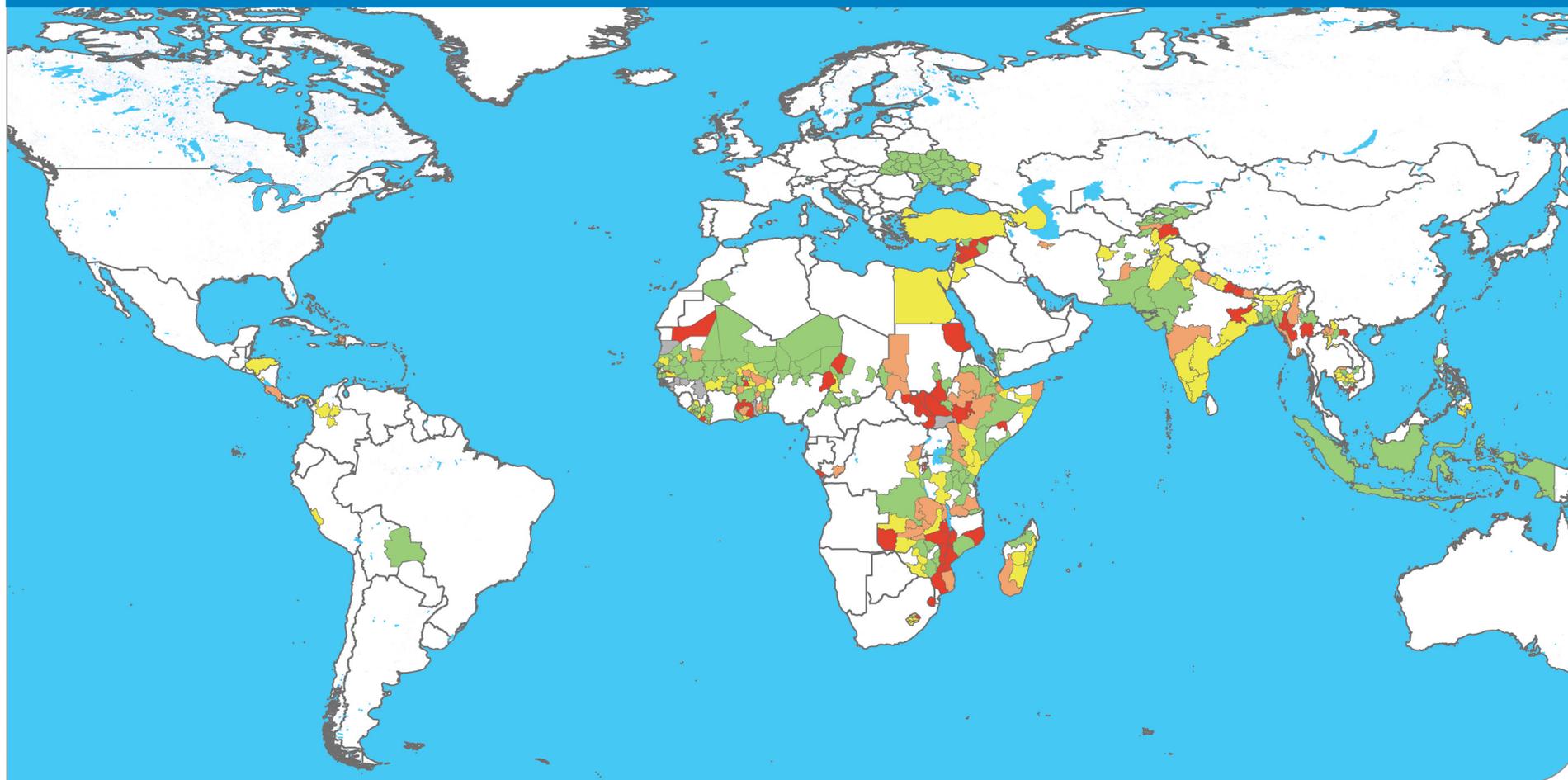
Map produced by: VAM - Food Security Analysis (OSZAF). Source: WFP; Base Map: GAUL.

**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 page 8-12. Baseline prices are from Q1 2011-2015.

# Q1-2016 (January to March) vs. Q4-2015 (October to December)



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



**Note:** This map is based on the calculations at subnational level of column L of the table on page 8-12.

### 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												
								>= 10%	Increasing	Severe				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
											from previous quarter	from baseline (%)		
Latin America and Caribbean	Bolivia	Rice (carolina 2da)	14	0	-1	-14	-14	-8	↓	100	-1	-8	4	
	Colombia	Maize (white)	13	0	-15	+1	+11	+31	↓	18			5	
		Sugar	13	+8	+4	+25	+44	+55	→	24			3	
		Rice (paddy)	12	+15	+6	0	+10	+33	↗	19	0	+26	3	
		Wheat flour	8	-7	-6	-19	+5	+4	↓	10			5	
		Bananas	5	-2	+3	+14	+4	-6	→	14			3	
	Costa Rica	Plantains	5	0	+2	-6	+17	+30	→	16			3	
		Rice (milled 80-20)	17	0	+5	-4	-4	-18	↗	100	+5	-18	5	
	El Salvador	Wheat (flour)	9	0	0	-7	-7	-4	→	53			5	
		Sorghum (maicillo)	6	-24	-6	+25	+34	+31	↓	47	-4	+10	5	
	Haiti	Wheat flour (imported)	12	+10	+10	+39	+28	+34	↑	49			5	
		Maize (local)	9	+5	-4	+28	+28	+35	↓	28	+4	+28	5	
		Oil (vegetable, imported)	7	+2	+1	+11	+9	+11	→	23			3	
	Honduras	Maize (white)	26	+13	-4	+9	+9	+20	↓	53			5	
		Beans (red)	5	-2	+8	-20	-27	-9	↗	25	+3	+7	5	
		Rice (milled 80-20)	5	+1	+2	0	-1	+2	→	22			5	
	Nicaragua	Maize (white)	23	+13	+10	+37	+30	+52	↑	30			5	
		Rice (first quality)	17	+2	0	+3	+2	+18	→	49	+4	+22	5	
		Beans (red)	7	-12	+2	-12	-28	+2	→	21			5	
	Panama	Rice (first quality)	24	+1	+2	+20	+19	-7	→	43			5	
Bread		12	0	-1	0	0	-16	↓	48	0	-10	5		
Maize		7	+1	+5	0	+1	+5	↗	9			5		
Peru	Rice (local)	21	0	-1	+1	+1	+6	↓	22			5		
	Wheat flour (locally processed)	14	+2	+1	+4	+3	+7	→	23			5		
	Potatoes	8	+12	+11	+8	+33	+64	↑	36	+4	+21	5		
	Sugar	8	0	0	+18	+18	+3	→	7			5		
	Maize (local)	7	+1	+2	-3	-3	+7	→	13			5		
Southern Africa	Congo	Cassava (fresh)	32	+27	+28	N/A	N/A	+20	↑	55			3	
		Bread	18	+13	N/A	N/A	N/A	N/A	↑	35			*	
		Oil (palm)	11	-34	-32	N/A	N/A	+9	↓	6	+13	+17	2	
		Rice (mixed, low quality)	6	-22	-19	N/A	N/A	-3	↓	5			4	
	Congo (DR)	Cassava (chikwangue)	53	+1	+2	+6	+6	+9	→	83			5	
		Maize	14	-3	+5	+8	+13	-2	↗	7	+1	+4	5	
		Oil (palm)	5	+8	-2	-12	-10	-14	↓	3			5	
		Wheat flour	5	-6	-11	-17	-7	-24	↓	7			5	

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 13.

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	Lesotho	Maize meal	56	+3	+1	+25	+16	+24	→	56	0	+21	5
		Bread (brown)	14	+2	0	+3	+3	+18	→	44			5
	Madagascar	Rice (local)	49	0	-1	N/A	N/A	+1	↓	100	-1	+1	4
	Malawi	Maize	53	+49	+14	+119	+120	+160	↑	100	+14	+160	5
		Cassava flour	32	+3	-10	+17	+28	+28	↓	40			*
	Mozambique	Maize (white)	20	+56	+45	+126	+126	+118	↑	21			5
		Wheat flour (local)	9	+26	+25	+42	+38	+41	↑	17	+7	+42	4
		Rice (imported)	8	+18	+20	+33	+23	+25	↑	13			5
		Oil (vegetable, imported)	5	+22	+21	+30	+26	+26	↑	9			2
	Swaziland	Maize (white)	25	+58	+55	+49	+65	+67	↑	24			4
		Wheat flour	16	0	+1	+9	+4	+23	→	36	+15	+36	5
		Sugar (brown)	11	+8	+10	+26	+19	+35	↑	22			4
		Rice	8	+14	+16	+19	+19	+33	↑	18			5
	Tanzania	Maize	26	+5	-2	+64	+73	+32	↓	39			5
		Rice	10	+4	-6	+11	+19	+20	↓	41	-3	+25	5
		Beans	5	-1	-1	+5	+11	+24	↓	20			5
Zambia	Maize (white)	51	+5	+5	+68	+25	+36	↔	55	+5	+40	5	
	Cassava meal	13	N/A	N/A	+51	+15	+44	N/A	45			4	
Zimbabwe	Maize	41	+10	-6	+29	+20	+19	↓	66	-4	+8	5	
	Wheat (flour)	10	-1	-2	-6	-5	-8	↓	34			5	
Central and Eastern Africa	Burundi	Sweet potatoes	17	+18	+49	+23	+26	+19	↑	45			5
		Beans	16	-1	+5	+58	+50	+32	↔	34	+29	+24	5
		Cassava flour	13	+27	+34	+61	+55	+24	↑	20			5
	Djibouti	Pasta	34	-1	-1	-3	-2	-1	↓	64			3
		Rice (imported)	17	-1	0	-6	-6	-8	→	22	0	-4	5
		Sugar	11	-2	-1	-6	-6	-11	↓	14			3
	Ethiopia	Maize (white)	21	+1	0	-5	-4	+10	→	26			5
		Pasta	12	-19	-28	-6	-12	-17	↓	51	-15	-2	2
		Sorghum	12	+10	+16	+12	+12	+32	↑	23			5
	Kenya	Maize (white)	35	-2	+3	-1	-3	-13	→	23			5
Bread		9	+1	-3	0	+4	+13	↓	22	-7	+7	5	
Milk (cow, fresh)		7	-6	-14	+7	+8	+16	↓	55			5	

(\*) Calculations based on nominal prices. For details, see 'Approach' on page 13.

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	Somalia	Sorghum (red)	29	-5	-3	-29	-12	-11	↓	41			5	
		Maize (white)	18	-1	-4	-3	-5	-3	↓	23			5	
		Wheat flour	10	+8	N/A	N/A	N/A	N/A	N/A	↔	19	-2	-10	*
		Rice (imported)	9	-3	+4	-4	-4	-17	→	18			5	
	South Sudan	Sorghum (white)	26	+58	+60	+376	+245	+272	↑	38			5	
		Wheat flour	15	+44	+63	N/A	N/A	+370	↑	47	+55	+316	4	
		Millet (white)	7	+51	+38	+230	+200	+297	↑	15			4	
	Uganda	Cassava flour	13	-4	-12	-8	-5	+18	↓	40			5	
		Maize (white)	9	-11	-12	+6	+9	+11	↓	16			4	
		Beans	5	0	-11	+14	+20	+27	↓	26	-9	+19	4	
		Millet	5	+3	+3	+20	+17	+19	→	18			4	
	West Africa	Benin	Maize (white)	19	-17	-16	0	+19	-22	↓	20			5
Cassava meal (gari)			16	0	+5	0	+3	-24	↔	25	-3	-15	5	
Rice (imported)			13	-2	-1	0	+3	-3	↓	45			5	
Burkina Faso		Sorghum	5	-12	-7	0	+8	-21	↓	9			5	
		Sorghum	26	+1	+1	+2	+2	0	→	42	0	-1	5	
		Millet	22	-1	+1	+4	+2	-1	→	36			5	
		Maize	16	-4	-4	+12	+7	0	→	22			5	
Cameroon		Maize	15	+1	+2	+2	-3	-3	→	25			5	
		Cassava (cossette)	12	+5	-26	-9	-8	-4	↓	40	-6	-3	2	
		Rice (local)	10	+9	-4	+12	+18	0	↓	23			5	
Cape Verde		Sorghum (red)	8	-13	-11	+3	+9	-1	↓	12			5	
		Rice (long grain, imported)	19	-1	0	0	+1	-7	→	43	+1	+12	5	
		Wheat (flour, imported)	13	0	-1	0	-1	-1	→	22			5	
Chad		Maize (white, local)	12	+3	+3	+30	+24	+62	→	36			5	
		Sorghum	18	-16	-16	-14	-11	+1	↓	42			5	
		Millet	15	-14	-10	-7	-5	+3	↓	43	-12	+3	5	
Côte d'Ivoire		Maize	5	0	-1	-1	+9	-2	↓	16			5	
		Rice (denikassia, imported)	20	0	0	+4	+5	+5	↓	46			5	
		Cassava (fresh)	12	+4	-1	-1	+4	+4	↓	19	+1	+6	5	
Gambia (The)		Oil (palm)	9	+3	-8	-2	-1	-1	↓	21			5	
		Maize	7	+6	-1	+11	+12	-1	↓	13			5	
		Rice (basmati, broken)	21	-2	-2	N/A	N/A	+104	↓	67			*	
Guinea		Millet	19	-2	0	N/A	N/A	+13	→	7			4	
		Sugar	12	+5	+5	N/A	N/A	+12	↔	8			*	
		Bread	8	+2	+1	N/A	N/A	+6	→	8			*	
		Oil (palm)	7	+3	+2	N/A	N/A	+14	→	5	0	+62	*	
Ghana		Oil (groundnut)	5	+5	+12	N/A	N/A	+33	↑	3			*	
		Sorghum	5	+14	+19	N/A	N/A	+50	↑	3			3	
		Cassava	21	+30	+30	+66	+51	+82	↑	26			5	
Liberia		Maize	12	+3	-3	+28	+28	+88	↑	12	+10	+57	5	
		Yam	11	+30	+27	+49	+49	+84	↑	35			5	
		Rice (imported)	8	+3	-7	+9	+12	+12	↓	27			*	
Mali		Rice (imported)	37	N/A	N/A	+2	0	-4	N/A	70			4	
		Cassava meal (gari)	12	N/A	N/A	N/A	N/A	-6	N/A	19	N/A	-3	5	
		Oil (palm)	6	N/A	N/A	-4	+2	+8	N/A	11			5	
Mauritania		Rice (imported)	32	+1	+4	-3	-5	+11	→	61	+3	+5	5	
		Cassava (fresh)	21	+1	+2	+19	+19	-6	→	19			5	
		Oil (palm)	15	0	+3	+8	0	-7	→	20			5	
Niger		Rice (imported)	21	-1	-5	-2	-2	-5	↓	49			5	
		Millet	20	-4	-3	+1	-1	-8	↓	24	-4	-6	5	
	Sorghum	13	-4	-6	-1	-1	-7	↓	16			5		
	Maize	9	-2	-4	-2	+4	-5	↓	10			5		
North Nigeria	Wheat	30	-4	-5	-11	-11	-5	↓	33			5		
	Sugar	12	+6	+3	+6	+1	-1	→	17			5		
	Oil (vegetable)	11	-6	-5	-2	-6	-5	↓	14	-3	-3	5		
Senegal	Rice (imported)	11	+5	+4	+8	+13	+25	→	24			5		
	Sorghum (taghalit)	7	-16	-9	-29	-22	-9	↓	12			5		
	Millet	39	-1	-5	-6	-6	-17	↓	57			5		
Togo	Sorghum	11	-7	-5	-5	-5	-11	↓	18	-5	-13	5		
	Rice (imported)	7	0	-3	+1	-4	-4	↓	25			5		
	Sorghum	13	+22	+40	+34	+31	+21	↑	19			3		
Togo	Millet	11	+23	+33	+27	+31	+10	↑	15			3		
	Maize	8	-5	-3	+3	+3	-17	↓	22	0	-16	5		
	Rice (imported)	8	-18	-14	-27	-25	-32	↓	43			5		
Togo	Rice (imported)	30	+1	-1	+2	+1	-7	↓	70			5		
	Maize (imported)	10	-7	-4	-3	-3	-7	↓	17	-3	-7	5		
	Millet	8	-6	-4	-13	-13	-12	↓	12			5		
Togo	Maize (white)	24	+2	-6	+31	+30	+9	↓	22			5		
	Manioc (cassava)	15	+1	-1	+15	+7	-4	↓	43			5		
	Rice (imported)	10	+3	+3	-2	+2	0	→	25	-1	+1	5		
Togo	Sorghum	8	+4	+5	+17	+15	+12	↔	10			5		

(\* ) Calculations based on nominal prices. For details, see 'Approach' on page 13.

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	Algeria	Pasta	46	-15	N/A	N/A	N/A	N/A	↓	55			*	
		Sugar	9	+3	N/A	N/A	N/A	N/A	→	12	-8	N/A	*	
		Milk	5	+3	N/A	N/A	N/A	N/A	→	33			*	
	Armenia	Bread (first grade flour)	40	-1	-4	-4	-3	-3	+4	↓	47			3
		Milk	8	-5	-8	-5	-1	-1	+5	↓	39			3
		Sugar	8	-1	-3	-6	-10	-9	-9	↓	6	-6	+3	3
	Azerbaijan	Potatoes	5	+1	-10	-22	-23	-5	-5	↓	9			3
		Bread (high grade flour)	57	+5	+5	+3	+7	+8	+8	↔	68	+2	+8	5
		Potatoes	6	+9	-5	0	-3	+7	+7	↓	32			5
	Egypt	Pasta	35	0	N/A	N/A	+17	+13	-2	→	57			5
		Rice	12	+9	N/A	N/A	N/A	N/A	N/A	↔	28	+3	+1	5
		Sugar	7	+4	N/A	N/A	+17	+12	+12	→	15			5
	Georgia	Bread	41	+1	+1	+1	+1	+4	+4	→	43			5
		Milk (raw)	10	-22	-23	-28	-21	-11	-11	↓	57	-14	-5	5
	Iran (Islamic Republic of)	Rice (local)	9	+4	+3	+21	+16	+32	+32	→	71	+5	+33	3
		Sugar	9	+7	+9	+28	+22	+38	+38	↔	29			3
		Bread (pita)	38	0	+1	0	0	+1	+1	→	23			5
	Jordan	Sugar	15	0	+1	-4	-4	-9	-9	→	26			3
		Oil (vegetable)	12	0	+2	+7	+5	+8	+8	→	25	+2	+2	5
		Rice (imported)	8	+1	+5	+2	+1	+12	+12	↔	26			5
	Kyrgyz Republic	Bread	40	0	-3	-1	-1	+19	+19	↓	83	-7	+4	5
		Potatoes	8	-6	-21	-51	-49	-35	-35	↓	17			5
		Bread (pita)	30	+1	0	+3	+2	-9	-9	→	86	+1	-12	3
	Lebanon	Sugar	11	+3	+11	-11	-6	-25	-25	↑	14	+1	-12	3
		Wheat flour	40	-1	-2	-4	-5	-8	-8	↓	41			5
		Sugar	10	-1	+2	-2	-2	-13	-13	→	14	+1	0	4
	Palestine	Rice (small grain, imported)	7	-1	+1	+8	+7	+14	+14	→	17			5
		Oil (olive)	5	+3	+5	+9	+9	+14	+14	↔	28			5
		Sorghum	60	+6	+5	+25	+20	+65	+65	↔	85	+5	+64	5
	Sudan	Millet	9	+1	+4	+8	+6	+59	+59	→	15			5
		Bread (bakery)	39	0	-9	+75	+91	+170	+170	↓	24			3
		Sugar	13	+2	-6	+146	+178	+314	+314	↓	49	-3	+231	4
	Syria	Oil	11	-1	+8	+88	+102	+182	+182	↔	26			4
		Bread	54	+1	+3	+22	+33	+44	+44	→	92			5
		Sugar	7	+12	+13	+29	+28	+22	+22	↑	4	+3	+42	5
	Tajikistan	Oil (cotton)	6	+6	+3	+15	+12	+17	+17	→	3			5
Maize		5	+1	-3	+5	+6	+14	+14	↓	1			5	
Bread (common)		41	+4	-1	+9	+7	+6	+6	↓	60			2	
Turkey	Sugar	8	+1	+1	+11	+9	+10	+10	→	10	0	+7	2	
	Milk (pasteurized)	5	+3	+3	+1	+1	+7	+7	→	29			2	
	Bread (rye)	29	+2	-8	+8	+29	+42	+42	↓	40			2	
Ukraine	Oil (sunflower)	9	+5	-12	+9	+32	+47	+47	↓	8			2	
	Potatoes	8	+5	-24	+25	+50	+35	+35	↓	15	-7	+39	2	
	Milk	7	+8	+4	+29	+32	+36	+36	→	37			2	
Yemen	Wheat flour	38	-24	-21	-3	+2	+4	+4	↓	59			5	
	Sugar	12	-5	-4	+2	0	0	0	↓	26	-16	+1	3	
	Oil (vegetable)	9	-17	-14	+16	+9	-8	-8	↓	15			3	

(\* ) Calculations based on nominal prices. For details, see 'Approach' on page 13.

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	-1	-2	0	+1	+4	↓	79	-1	+5	2
		Rice (low quality)	22	+2	+3	+6	+3	+6	→	21			5
	Bangladesh	Rice (coarse)	70	0	-2	-18	-17	-14	↓	100	-2	-14	5
	Cambodia	Rice (mix)	65	-3	+4	+8	+4	-10	→	100	+4	-10	5
	India	Rice	31	0	-1	0	-1	+9	↓	51			5
		Wheat	22	+4	+2	+9	+9	+20	→	35	+2	+12	5
		Sugar	7	+14	+18	+15	+6	+6	↑	13			5
	Indonesia	Rice	50	+1	-3	+2	+4	+22	↓	80			5
		Oil (vegetable)	7	0	-2	-3	-4	+1	↓	5			5
		Sugar	6	+2	+1	+13	+13	+14	→	9	-2	+19	5
		Wheat	6	0	0	+2	+2	+6	→	6			5
	Lao PDR	Rice (glutinous, first quality)	64	+8	+11	+2	+6	+12	↑	100	+11	+12	5
	Myanmar	Rice (emata, manawthukha)	55	+7	+5	+36	+34	+45	↗	100	+5	+45	5
	Nepal	Rice	32	+3	+8	+10	+8	+22	↗	65	+7	+22	5
		Wheat	15	+5	+7	+6	+6	+24	↗	35			5
	Pakistan	Wheat	37	+2	-2	-2	-1	-7	↓	19			2
		Sugar	11	+5	+12	+17	+15	+17	↑	8			3
		Milk	9	0	0	+3	+3	+3	→	59	0	0	*
		Oil (cooking)	9	+1	+2	-10	-10	-13	→	9			3
		Rice (basmati, broken)	6	-4	-8	-17	-14	-4	↓	5			5
	Philippines	Rice (regular milled)	48	-2	-3	-6	-5	+6	↓	100	-3	+6	5
	Sri Lanka	Rice (white)	41	+3	+1	-12	-8	+9	→	56			5
		Wheat (flour)	14	+1	+2	+3	-3	-3	→	24	+2	+3	5
Sugar		11	+6	+4	N/A	N/A	-5	→	20			*	
Thailand	Rice (25% broken)	48	+2	+5	+4	+2	-14	↗	100	+5	-14	5	
Viet Nam	Rice (25% broken)	59	+1	+10	+5	+6	-3	↑	100	+10	-3	5	

(\*). Calculations based on nominal prices. For details, see 'Approach' on page 13.



# 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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