



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 fourth quarter of 2016 (October to December).¹ The maps on pages 6–7 disaggregate the impact analysis to sub-national level.

Global Highlights

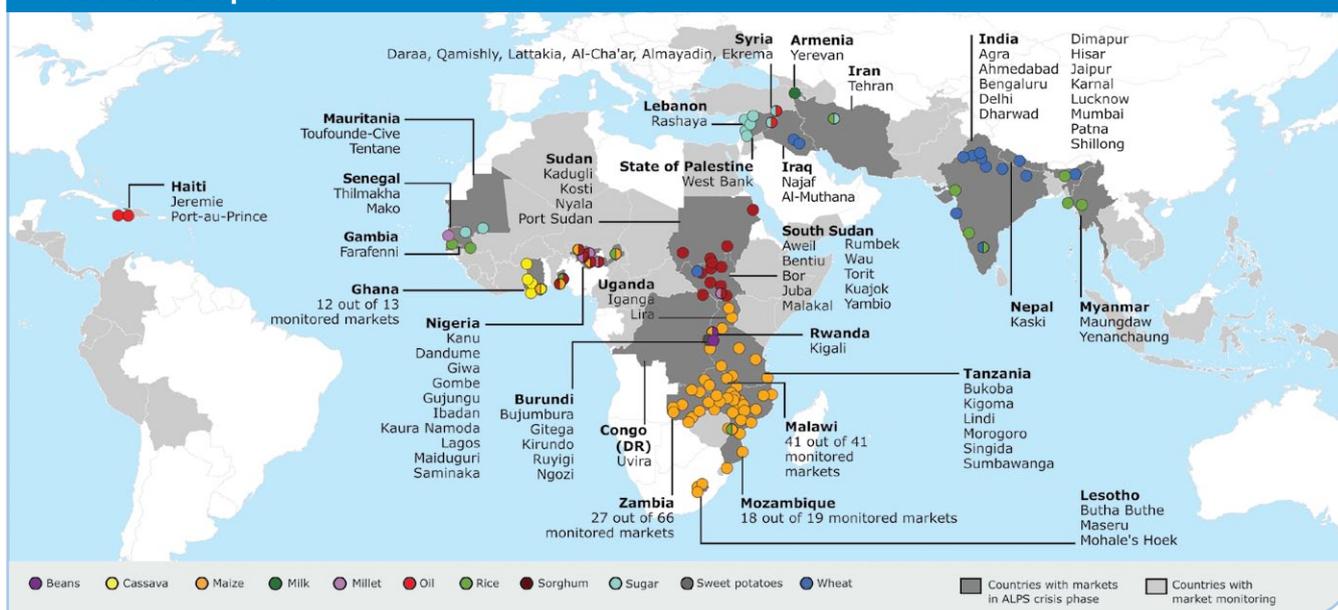
- In Q4-2016, **FAO's global cereal price index fell a further 8 percent year-on-year** as favourable growing conditions boosted global cereal production and global stocks. However, the FAO global food price index has risen 11 percent since 2015 because of large increases in international prices for sugar, dairy products and vegetable oils.
- **The real price² of wheat continued falling and was 26 percent below last year's level.** Global wheat production increased beyond projections for 2016 and end-of-season inventories estimated record-level closing stocks in most producing areas.
- **The real price of maize was down 11 percent from the same period in 2015** and is still at 2006 levels. Abundant and record global stocks have resulted from production outpacing consumption.
- In Q4-2016, **the real price of rice fell by 11 percent from Q3 down to levels last seen at the end of 2015.** This is thanks to improved crop supplies and reduced buying interest.
- **The real price of crude oil increased by nearly 10 percent from the previous quarter and by 13 percent from 2015** in reaction to the forecast shrinking of global oil production and trade in 2017.

CHANGES OF REAL PRICES²

Quarterly Change	Maize	Wheat	Rice	Note: Comparison to
q4-2016 vs. q3-2016	-1%	-4%	-12%	Third quarter in 2016
q4-2016 vs. q4-2015	-11%	-26%	0%	Same quarter in 2015
q4-2016 vs. q1-2008		-70%		Global wheat price peak in 2008
q4-2016 vs. q2-2008	-46%		-65%	Global maize and rice price peak in 2008

- **The cost of the basic food basket increased severely (>10%) in Q4-2016 in seven countries: Algeria, Bangladesh, Burundi, Egypt, Ethiopia, Myanmar and Rwanda.** High increases (5–10%) were seen in **Bolivia, north Nigeria, Peru, Somalia, Sri Lanka, Tanzania, Turkey, Uganda and Yemen.** In the other monitored countries, the change was moderate or low (<5%).
- Price spikes, as monitored by **ALPS**, were detected in 25 countries, particularly in **Ghana, Lesotho, Malawi, Mozambique, Nigeria, South Sudan, Sudan, Syria, Tanzania and Zambia** (see the map below).³ These spikes indicate crisis levels for the two most important staples in each country, which could be beans, cassava, maize, milk, millet, oil, rice, sorghum, sweet potatoes, sugar or wheat.

Food Price Hotspots



1. Data were collected and collated by WFP country offices and are available at: http://dataviz.vam.wfp.org/economic_explorer/prices. Additional data sources are the FAO Food Price Index, FAO/GIEWS Food Price Data and Analysis Tool, and IMF Primary Commodity Prices as on 20 January 2017.

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 Q4-2016, 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

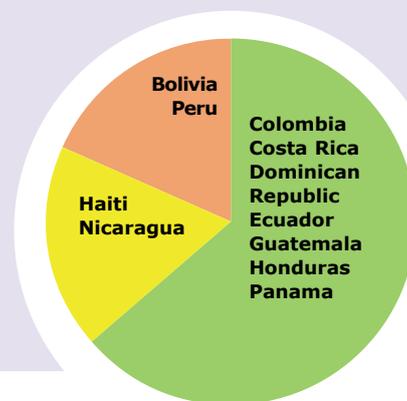
Hotspots: The impact of staple food price changes on the cost of the basic food basket from October to December 2016 was high in **Bolivia** and **Peru**; moderate in **Haiti** and **Nicaragua**; and low in the other countries.

• **Staple commodity prices:** During Q4-2016, quarterly rice prices rose as expected in **Bolivia** (+7%) with the progression of the lean season. In **Colombia**, imports contributed to keeping cereal prices stable (+0% maize; -1% rice) even after the harvest in October; banana prices fell from the previous quarter (-12%) due to falling export demand. In **Honduras**, bumper 2016 production eased prices for main staples compared with Q3-2016 (-14% maize; -2% beans; -6% rice). In **Haiti**, the price for local maize meal increased from the previous quarter in departments exposed to heavy rains (+34% Sud; +13% Ouest; +8% Nord-Est). Local maize meal became cheaper in Grand'Anse (-11%) and Sud-Est (-17%) after record prices in previous months shrank household purchasing power and local demand. In **Peru**, potato

prices edged up from both Q3-2016 (+14%) and Q4-2015 (+18%) after El Niño severely hampered crop productivity.

- **Fuel prices:** Fuel prices rose from Q3-2016 in **Honduras** (+2.5% gasoline; +4.6% diesel), **Guatemala** (+3.0% gasoline; +6.4% diesel), **Colombia** (+1.9% gasoline; +1.8% diesel) and **Nicaragua** (+0.5% gasoline; +3.5% diesel) as an effect of sluggish regional supplies.
- **Purchasing power:** In **Haiti**, headline and food inflation were 13 percent above last year's levels, reflecting the impact of Hurricane Matthew and the depreciation of the gourde (by 18.3% from Q4-2015). In **Colombia**, the currency appreciated slightly (by 1.5%) from Q4-2015 after political tensions turned into a peace agreement in December; year-on-year (y/y) inflation remained

moderate (+6.1% the consumer price index (CPI); +7.2% food CPI). In **Venezuela**, the official exchange rate was in free fall (weakening 58.6% from Q4-2015). Retailers have started to price goods in line with even higher black market rates: y/y headline inflation was 800 percent in 2016.



Southern Africa

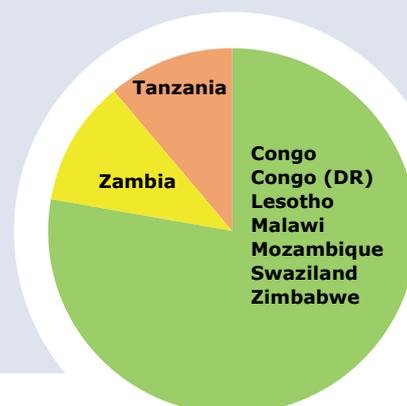
Hotspots: The impact of staple food price changes on the cost of the basic food basket in Q4-2016 was high in **Tanzania**; moderate in **Zambia**; and low in the other countries.

• **Staple commodity prices:** Although the suspension of formal maize exports in **Zambia** helped to keep prices under control, the Q4-2016 price for maize was still 26 percent higher than the previous year. Because of reduced access to Zambian exports, maize prices also saw a quarterly increase in the Katanga region of the **Democratic Republic of Congo** (+13%), which depends heavily on maize imports. In **Malawi**, the seasonally adjusted price for maize declined from Q3-2016 (-5%) thanks to the distribution of grain reserves as part of the government food insecurity response plan. Maize prices remained higher than last year (+60%) and at crisis level in nearly all monitored markets according to the ALPS indicator. In **Mozambique**, seasonally adjusted maize prices fell from Q3-2016 in central producing areas (-3% Tete; -16% Zambezia; -15% Nampula)

but increased in Gaza (+10%) and Inhambane (+8%), where political turmoil is still disrupting trade. In **Tanzania**, growing exports exacerbated seasonal price increases: maize prices were up 30 percent in Arusha and Singida and at the ALPS crisis level in Lindi in December.

- **Fuel prices:** In **Mozambique**, quarter-on-quarter (q/q) diesel prices were up 25 percent as the government removed implicit subsidies on fuel and import costs soared because of a 61 percent y/y currency depreciation. Q/q fuel prices also increased in **Zimbabwe** (+2.1% gasoline; +5.4% diesel).
- **Purchasing power:** Q/q food inflation was negative in **Lesotho** (-1.6%) and low in **Zambia** (+0.2%) and **Tanzania** (+1.0%) as their currencies appreciated against the US dollar. Headline and food CPI increased from Q4-2015 in

Malawi (+17.2% CPI; +20.7% food CPI) and **Mozambique** (+25.9% CPI; +35.8% food CPI) due to the combination of an increasing reliance on imports and weak currencies. In **Zimbabwe**, a strong US dollar lowered y/y headline inflation (-1.0%) and food inflation (-1.5%).



Central and Eastern Africa

Hotspots: The cumulative impact of staple food price changes on the cost of the basic food basket in Q4-2016 was severe in **Burundi, Ethiopia and Rwanda**; high in **Somalia and Uganda**; moderate in **Djibouti**; and low in the other countries.

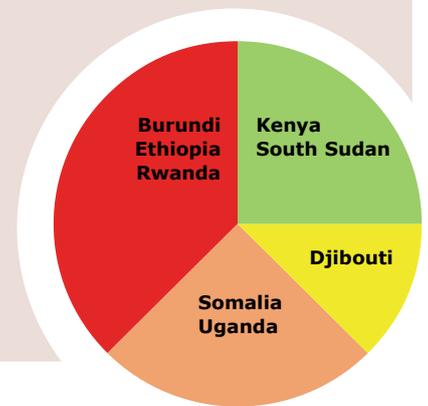
• **Staple commodity prices:**

Extensive flooding during the summer months altered soil moisture and hampered crop development in **Ethiopia**: as a result, cereal prices rose from Q3-2016 (+22% maize; +31% sorghum) despite the harvest in October. Weak supply in the run-up to the lean season was the reason behind major price increases in **Rwanda** from the previous quarter (+23% beans; +18% maize). Maize prices in **Burundi** saw a dramatic rise from Q3-2016 in conflict-hit areas where insecurity and displacement are disrupting agriculture, particularly in Bujumbura Mairie (+26%), Kirundo (+29%), Gitega (+18%) and Ngozi (+59%). Erratic rainfall had a marked effect on sweet potato and bean crops: prices for both products were higher than in Q3-2016 (+38% sweet potatoes; +9% beans) and at **ALPS crisis** level in nearly all monitored markets. In **Uganda**, seasonally adjusted prices increased from Q3-2016 (+16% maize;

+10% millet; +4% beans) because the harvest started late following a slow onset of rains. In **South Sudan**, increasing imports and the onset of the harvest season helped reduce cereal prices from Q3-2016 (-33% sorghum; -8% wheat flour; -29% millet); nevertheless, prices remained more than double last year's levels across all regions.

- **Fuel prices:** Diesel prices decreased in **Somalia** both from Q3-2016 (-14.8%) and compared with Q4-2015 (-32.6%). In **Ethiopia**, y/y fuel prices fell further (-7.5% gasoline; -4.1% diesel) after 2016 governmental price cap revisions. Fuel remains in short supply in **South Sudan**: prices were well above their Q3-2016 levels (+35.7% gasoline; +46.2% diesel) following the rationing of available stocks; prices are up to six times higher than last year (+331.8% gasoline; +578.6% diesel).
- **Purchasing power:** In **Rwanda**, the increase in headline CPI (+5.1% q/q; +9.8% y/y) was

mostly attributable to weak food supply: food inflation was nearly 10 percent q/q and 18 percent y/y. In **Uganda**, q/q food inflation was 7 percent after monetary authorities lowered interest rates to sustain economic growth. **South Sudan** is still undergoing an unprecedented hyperinflationary spiral compared with last year (+578.9% CPI; +666.9% food CPI): the official pound was ten times lower than its value in Q4-2015.



West Africa

Hotspots: The impact of staple food price changes on the cost of the basic food basket in Q4-2016 was high in **north Nigeria**; moderate in **Burkina Faso, Mali, Mauritania and Senegal**; and low in the other countries.

• **Staple commodity prices:**

In **Ghana**, staple food prices decreased from Q3-2016 (-4% cassava; -12% yams; -34% maize) reflecting good crop production in 2016. In **Burkina Faso**, localized dryness hampered crop development and led cereal prices to rise in Boucle Du Mouhoun (+7% sorghum; +6% millet), Cascades (+11% sorghum; +12% millet; +6% maize) and Hauts-bassins (+3% sorghum; +9% millet) despite the ongoing harvest. In **north Nigeria**, palm oil prices soared from both Q3-2016 (+39%) and last year (+86%) after the government sought to reduce imports by restricting importers' access to national dollar reserves. Boko Haram attacks continue to disrupt agriculture in border states: local cereal prices increased from Q3-2016 in Jigawa (+5% maize; +30% millet; +16% sorghum) and Oyo (+22% maize; +3%

millet; +28% sorghum) despite the ongoing harvest; prices were more than double last year's levels across all regions. In **Mali**, cereal prices increased in Segou (+5% rice; +12% millet; +12% sorghum; +4% maize) where frequent attacks are fragmenting trade. In **Senegal**, local millet prices rose in Diourbel (+22%), Fatick (+20%), Kaffrine (+25%) and Kaolack (+23%) due to flood-reduced yields; they were at *crisis* level in Diama Gadio and Birkelane according to **ALPS**.

- **Fuel prices:** In **Nigeria**, fuel prices were higher than last year (+49.5% gasoline; +20.6% diesel) as regulatory authorities revised the fuel pricing method to adjust for the naira's depreciation over the past year (by 55.8% since Q4-2015). In **the Gambia**, fuel prices were below last year's level (-13.8% gasoline; -20.2% diesel) after the government cut them significantly in early 2016.

- **Purchasing power:** In **Ghana**, y/y headline inflation was at 16 percent, mostly because food prices were higher than last year (+9.2% food CPI) as a long-lasting effect of past steep currency depreciation on import costs. In **Nigeria**, y/y inflation was high (+18.5% CPI; +17.2% food CPI) in line with the free fall of the naira of previous months.



Middle East, North Africa and Central Asia

Hotspots: The impact of staple food price changes on the cost of the basic food basket in Q4-2016 was severe in **Algeria** and **Egypt**; high in **Turkey** and **Yemen**; moderate in **Armenia, Iran, Jordan, Lebanon, Syria** and **Ukraine**; and low in the remaining countries.

• **Staple commodity prices:** In **Syria**, continued fighting interrupted trade flows to Aleppo and prices for main staples skyrocketed from Q3-2016 (+140% bread; +190% sugar; +131% oil). Food assistance improved food availability and eased prices from Q3-2016 in Damascus (-71% bread; -29% sugar; -8% oil), Deir Ezzor (-5% bread; -10% sugar; -32% oil) and Hassakeh (-15% bread; -19% sugar; -9% oil). In **Algeria**, the seasonally adjusted price for pasta rose 13 percent from Q3-2016. In **Egypt**, the November hike in international sugar prices, strong currency devaluation and a severe national shortage of dollars caused sugar imports to fall in Q4-2016: quarterly sugar prices shot up (+62%) as a result. Rice prices declined (-20%) after several farmers switched from cotton to rice production, expanding paddy fields beyond the areas allotted by the government. In **Yemen**, food prices were still on the rise from Q3-2016 in conflict-hit areas as a weak currency pushed up import prices and blockades impeded supply flows, particularly in Al Hudaydah (+12%

sugar; +8% oil; +24% rice) and Aden (+9% sugar; +8% oil; +19% rice). In **Iraq**, prices remained under stress in areas most affected by internal displacement such as Dahuk (+38% wheat flour; +19% rice). WFP sources reported price drops in Kirkuk (-6% rice) as humanitarian response contributed to bridging food supply gaps in local markets.

- **Fuel prices:** In **Yemen**, fuel availability deteriorated in Q4-2016 as both formal and informal imports failed to meet requirements: q/q prices increased (+16.4% gasoline; +4.3% diesel) as a result. Even so, fuel prices were lower than last year's hikes (-60.8% gasoline; -63.0% diesel). Fuel prices rose in **Ukraine** from Q4-2015 (+17.3% gasoline; +18.2% diesel) and gasoline prices edged 10 percent up from the previous quarter in **Turkey** following OPEC's decision to limit oil production in October.
- **Purchasing power:** In **Egypt**, the introduction of a floating exchange rate in November was accompanied by sharp currency devaluation (by 62.8% q/q; by 83.0% y/y);

monetary authorities raised interest rates to keep prices in check but y/y headline and food inflation remained above 18 percent. In **Azerbaijan**, y/y inflation stood in double figures (+14.6% CPI; +13.2% food CPI) after the manat lost 49 percent of its value from 2015. In **Sudan**, y/y headline inflation was high (+24%) after import price increases of previous months.



Asia

Hotspots: The impact of staple food price changes on the cost of the basic food basket from October to December 2016 was severe in **Bangladesh** and **Myanmar**; high in **Sri Lanka**; moderate in **India, Pakistan** and **the Philippines**; and low in the other countries.

• **Staple commodity prices:** A prolonged dry spell hit **Sri Lanka** from early 2016 onwards: the consequent shortage of water to irrigate the paddy fields has led to much smaller cultivated areas and as a result, seasonally adjusted rice prices rose 10 percent from Q3-2016. Although crop production in **Myanmar** is recovering, the effects of June–August flooding on winter crops and recent turmoil in the western regions inflated rice prices from Q3-2016 (+10%) and from Q4-2015 (+16%). In **Bangladesh**, the considerable fall in paddy production in mid-2016 continued to influence rice prices, which were 17 percent higher than in Q3-2016 and up 29 percent from Q4-2015 despite the ongoing

harvest. In **India**, governmental regulations on sugar stock hoarding and the positive forecast for national production lowered sugar prices by 1 percent from Q3-2016.

- **Fuel prices:** In **Afghanistan**, the retail price for diesel rose sharply from Q3-2016 (+24.3%) and Q4-2015 (+12.0%) despite the government's call to cut prices for petroleum by-products. Fuel prices decreased from Q4-2015 in **Myanmar** (-10.3% diesel) and **Pakistan** (-13.9% gasoline; -11.8% diesel).
- **Purchasing power:** Quarterly changes in headline and food CPI were low in the majority of Asian countries thanks to stable national currencies. In **Afghanistan**, y/y

headline inflation was negative (-1.8%) despite food price increases (+5.5% food CPI). Y/y headline inflation was 5 percent in **Nepal** and **Bangladesh**, in line with food inflation.



Consumer Price Index and Exchange Rates							
Region	Country	Quarterly and Yearly Changes in Q4-2016 (October-December)					
		Quarter-on-Quarter			Year-on-Year		
		General CPI	Food CPI	Currency (USD/LCU)	General CPI	Food CPI	Currency (USD/LCU)
Latin America and Caribbean	Bolivia	1.08%	2.09%	-0.48%	3.79%	6.34%	-0.37%
	Colombia	0.01%		2.34%	6.06%	7.22%*	-1.46%
	Costa Rica	-0.29%	-0.84%	-0.26%	0.63%	-1.78%	2.70%
	Dominican Republic	0.70%	-1.13%	0.42%	1.16%	-3.65%	1.78%
	Ecuador	-0.08%	-1.05%		1.16%	1.37%	
	El Salvador	-0.10%		0.00%	-0.57%	-2.05%*	-0.08%
	Guatemala	0.88%		-0.61%	4.55%	9.38%*	-1.82%
	Haiti	3.82%	3.79%	1.46%	13.42%	13.67%	18.25%
	Honduras	0.34%	-0.87%	0.43%	3.06%	0.19%	4.82%
	Nicaragua	0.42%	-0.01%	1.20%	3.26%	-0.11%	4.86%
	Panama	0.19%		-0.05%	1.36%	0.70%*	0.01%
Peru	0.97%		1.61%	3.33%	3.54%*	2.11%	
Venezuela			0.01%	800%*		58.56%	
Southern Africa	Lesotho	0.50%	-1.56%	-0.76%	5.55%	8.75%	-1.81%
	Malawi	7.82%	13.25%	-0.35%	17.22%	20.67%	21.48%
	Mozambique	8.13%		6.59%	25.87%	35.8%*	61.34%
	Namibia	0.91%		-0.97%	7.29%	12.50%*	-1.99%
	Swaziland	0.75%		-0.96%	7.99%	17.60%*	-2.09%
	Tanzania	0.87%	0.97%	-0.43%	4.78%	6.40%	0.65%
	Zambia	2.00%	0.23%	-1.20%	9.49%	9.29%	-15.86%
	Zimbabwe	-0.14%			-1.03%	-1.54%*	
Central and Eastern Africa	Burundi	0.73%	0.55%	0.86%	6.65%	6.56%	7.11%
	Djibouti	0.62%	-0.27%	0.60%	3.11%	6.51%	-0.05%
	Ethiopia	0.02%	1.42%	0.83%	6.42%	4.92%	5.64%
	Kenya	1.61%		0.30%	6.50%		-0.70%
	Rwanda	5.05%	9.54%	2.09%	9.79%	17.83%	9.10%
	South Sudan	5.63%	3.08%	42.71%	578.94%	666.92%	1067.39%
	Uganda	2.25%	7.18%	4.26%	4.45%	5.28%	1.33%
West Africa	Benin	-0.74%	1.08%	-0.25%	-3.25%	-5.49%	-2.26%
	Burkina Faso	-0.30%	0.17%	-0.25%	-0.87%	4.62%	-2.26%
	Cape Verde	0.87%	0.55%	2.40%	-1.23%	-1.32%	0.26%
	Chad	-2.41%	-7.23%	2.73%	-3.74%	-6.47%	0.95%
	Côte d'Ivoire			1.17%	-0.20%*	-2.10%*	-0.86%
	Gambia (The)			-1.72%			6.45%
	Ghana	2.19%	-0.89%	3.43%	15.55%	9.24%	7.05%
	Guinea	1.46%		0.80%	8.22%		19.16%
	Mali	-0.19%	-0.04%	-0.25%	-1.29%	-0.45%	-2.26%
	Mauritania	1.31%	4.03%	0.66%	1.23%	3.68%	13.36%
	Niger	-0.84%		-0.25%	-1.09%	-5.40%*	-2.26%
	Nigeria	2.60%	2.85%	0.30%	18.46%	17.23%	55.82%
	Senegal	1.52%	1.60%	1.17%	0.66%	2.90%	-0.86%
Middle East, North Africa and Central Asia	Armenia	1.44%	3.07%	0.66%	-0.91%	-0.76%	0.00%
	Azerbaijan	3.93%	3.82%	3.13%	14.64%	13.19%	49.03%
	Egypt	7.68%	4.99%	62.78%	18.76%	18.10%	83.03%
	Georgia	1.58%	-2.06%	6.32%	0.57%	0.57%	3.29%
	Iran	1.48%		4.26%	8.58%	8.90%*	4.65%
	Iraq	-0.24%	0.98%	-0.35%	-13.28%	-2.80%	1.65%
	Jordan	0.29%	-1.88%	-0.13%	0.26%	-4.39%	-0.16%
	Kyrgyz Republic	1.16%		0.95%	-0.40%	-5.00%*	-4.50%
	Lebanon	1.83%	1.15%	-0.25%	1.74%	-1.19%	-0.01%
	State of Palestine	-0.68%	-2.45%		-1.30%	-4.77%	
	Sudan	7.03%		4.43%	24.10%		3.69%
	Tajikistan	1.81%	0.09%	0.08%	1.95%	6.32%	17.89%
	Turkey	2.37%		10.92%	7.57%	5.65%*	13.03%
Yemen			-0.04%			16.20%	
Asia	Afghanistan	1.65%	0.91%	-2.25%	-1.78%	5.52%	0.00%
	Bangladesh	2.00%	3.01%	0.58%	5.32%	5.45%	0.50%
	Cambodia	0.61%		-0.39%	3.43%		0.35%
	India	-0.03%	-0.74%	0.67%	3.75%	2.27%	2.24%
	Indonesia	0.74%	-35.94%	0.88%	3.30%	7.08%	-3.84%
	Laos	0.23%	0.45%	0.66%	2.12%	4.04%	-0.20%
	Nepal	1.05%	1.32%	0.01%	5.30%	5.16%	1.54%
	Pakistan	0.75%	0.01%	0.01%	3.91%	2.84%	-0.24%
	Philippines	0.90%	1.47%	4.30%	2.46%	3.43%	4.76%
	Sri Lanka	0.51%	0.08%	1.61%	3.88%	4.21%	4.06%
Timor Leste	0.15%	0.41%		-0.91%	-1.31%		

Source: Trading Economics.

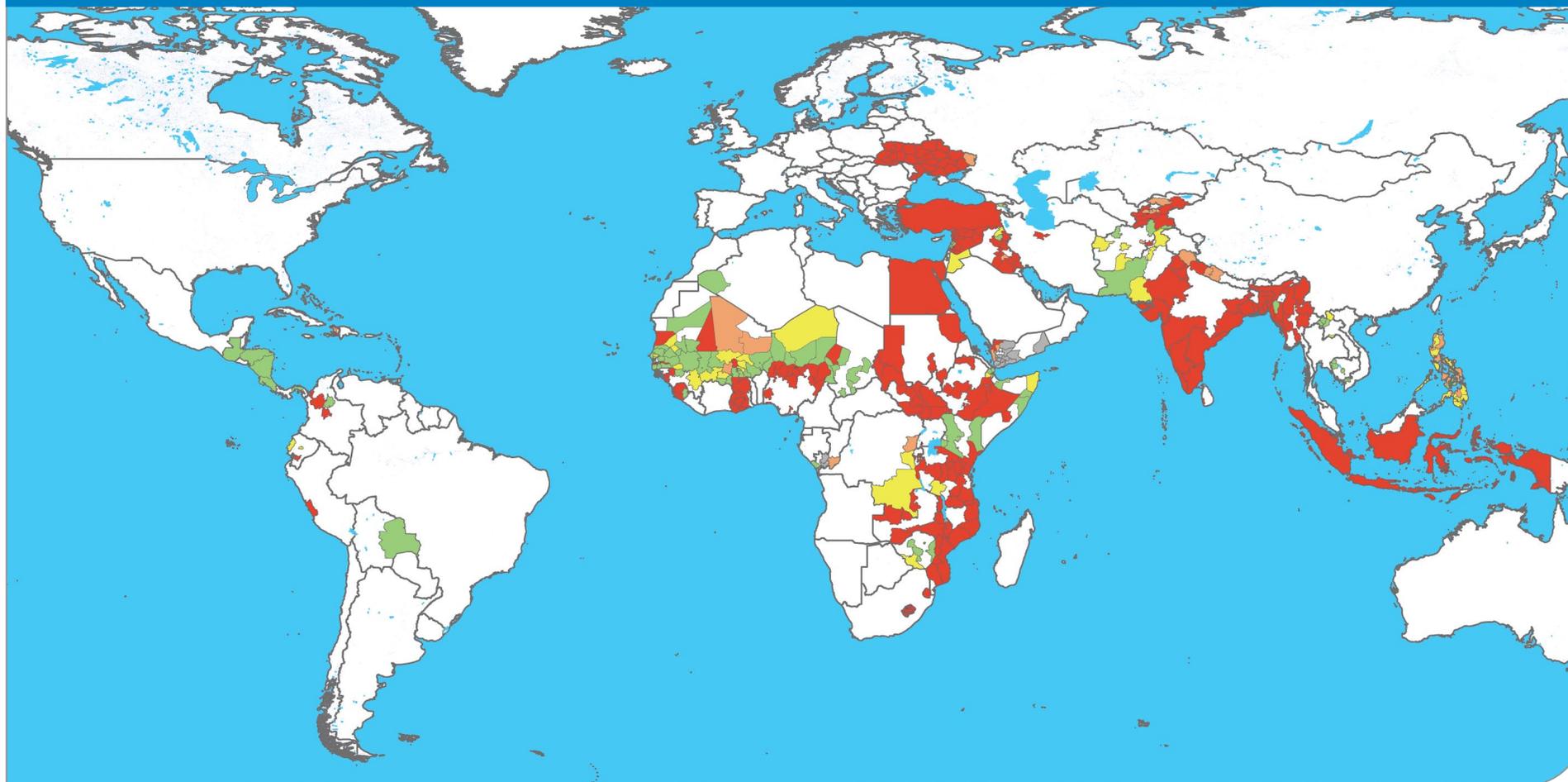
Notes:

- The calculation of quarterly changes uses averages of indices.
- Exchange rates define the amount of domestic currency needed to exchange one US dollar. An increasing exchange rate quantifies the depreciation of domestic currencies.

* 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

Q4-2016 (October to December) vs. Q4-Baseline (Average October to December)

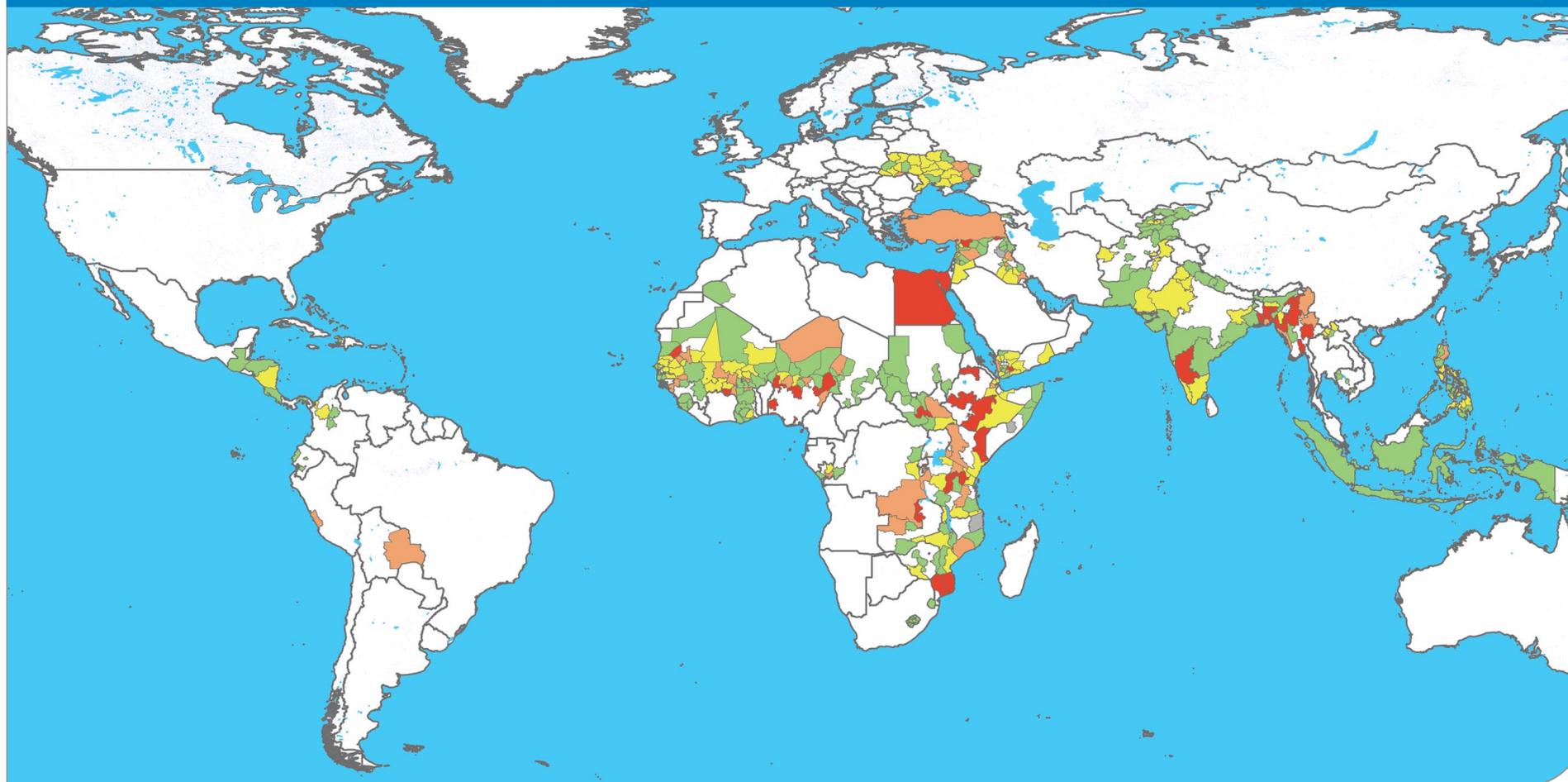


Map produced by: VAM - Food Security Analysis (OSZAF). Source: WFP; Base Map: GAUL

Impact Codes Low (< 0%) Moderate (0-5%) High (5-10%) Severe (> 10%) Monitored but without baseline data Water bodies

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 Q4 2011-2015.

Q4-2016 (October to December) vs. Q3-2016 (July to September)



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

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)	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]	
											Change	Price trend		Impact
											from previous quarter	from baseline (%)		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
Latin America and Caribbean	Bolivia	Rice (carolina 2da)	14	0	+7	0	-1	-8	↔	100	+7	-8	5	
		Maize (white)	13	0	0	0	0	+28	→	22			4	
		Sugar	13	+2	0	-4	+7	+43	→	30			4	
	Colombia	Rice (paddy)	12	-4	-1	-12	-8	+8	↓	19	-2	+15	4	
		Wheat flour	8	0	+2	-25	-22	-14	→	11			5	
		Bananas	5	-13	-12	+4	+1	-5	↓	18			3	
		Rice (first quality)	17	-2	-1	-3	-3	-5	↓	64	-5	-5	5	
	Costa Rica	Wheat (flour)	10	-13	-12	-4	-4	-6	↓	36			5	
		Rice (first quality)	17	0	-4	+2	+4	+10	↓	89	-5	+9	5	
	Dominican Republic	Chicken (processed)	5	-2	-5	-7	-9	0	↓	11			5	
		Rice (long grain)	19	-5	-3	-4	-4	+11	↓	68	-2	+5	5	
	Ecuador	Wheat (flour)	13	+2	+1	-5	-5	-5	→	32			5	
		Maize (white)	36	-26	-14	-27	-12	-21	↓	100	-14	-21	5	
	Guatemala	Rice (local)	23	-2	-3	0	0	0	↓	39			*	
		Wheat flour (imported)	12	-1	-2	+9	+5	+18	↓	16			5	
		Sugar (white)	11	+10	N/A	N/A	N/A	N/A	↑	26	+1	+8	*	
	Haiti	Maize meal (local)	9	-3	-4	-6	0	+26	↓	9			5	
		Oil (vegetable, imported)	7	+3	+2	+7	+7	+15	→	9			4	
		Maize (white)	26	-37	-14	-30	-26	-15	↓	47			5	
		Beans (red)	5	-19	-2	-14	-25	-28	↓	26	-10	-17	5	
	Honduras	Rice (milled 80-20)	5	-4	-6	-6	-9	-8	↓	27			5	
		Rice (milled 80-20)	17	0	0	-3	-2	-4	→	30			3	
		Sugar	15	+1	0	0	0	0	→	20	0	-7	4	
	Nicaragua	Bread	9	+1	+1	+3	0	-4	→	35			3	
Beans (red)		7	-6	-1	-9	-17	-25	↓	15			3		
Rice (first quality)		24	+2	-1	-6	-4	-11	↓	40			5		
Bread		12	0	-1	0	0	-14	↓	51	-2	-12	5		
Panama	Maize	7	0	-3	0	0	-4	↓	9			5		
	Rice (local)	21	0	0	+1	+1	+4	→	21			5		
	Wheat flour (locally processed)	14	+1	+1	+6	+7	+11	→	23			5		
Peru	Potatoes	8	+22	+14	-1	+18	+60	↑	36	+6	+22	5		
	Sugar	8	+2	+4	+10	+10	+15	→	8			5		
	Maize (local)	7	+1	+3	+4	+4	+4	→	13			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	Cassava (fresh)	32	-7	-8	+10	+6	+1	↓	51	-3	+1	4
		Bread	18	-3	+1	+11	+10	+10	→	38			*
		Oil (palm)	11	+4	+7	-38	-39	-24	↗	6			2
		Rice (mixed, low quality)	6	-4	-4	-26	-23	-12	↓	5			4
	Congo (DR)	Cassava (chikwangue)	53	-2	-2	+6	+4	+10	↓	83	-3	+5	5
		Maize	14	+14	+2	-7	-1	-11	→	7			5
		Oil (palm)	5	-5	-4	+16	+9	-6	↓	2			5
		Wheat flour	5	+5	+4	-10	-8	-22	→	7			5
	Lesotho	Maize meal	56	-5	-6	+15	+18	+34	↓	58	-4	+28	5
		Bread (brown)	14	+1	-1	+10	+10	+21	↓	42			5
	Malawi	Maize	53	+7	-5	+59	+60	+160	↓	100	-5	+160	5
	Mozambique	Cassava flour	32	+3	-11	+1	+29	+42	↓	39	-5	+72	2
		Maize (white)	20	+17	-5	+83	+95	+164	↓	21			5
		Wheat flour (local)	9	+13	+10	+78	+60	+76	↑	16			5
		Rice (imported)	8	+10	+6	+63	+76	+82	↗	15			5
		Oil (vegetable, imported)	5	-8	-12	+70	+67	+72	↓	9			4
	Swaziland	Maize (white)	25	0	-6	+42	+42	+50	↓	22	-4	+27	5
		Wheat flour	16	-1	-1	-5	-1	+11	↓	35			5
		Sugar (brown)	11	-3	-3	+20	+21	+40	↓	25			5
		Rice	8	-4	-7	+20	+20	+24	↓	19			5
Tanzania	Maize	26	+30	+18	+29	+18	+38	↑	44	+5	+17	5	
	Rice	10	+5	-6	-12	-14	-2	↓	35			5	
	Beans	5	+14	+4	+2	+1	+19	→	21			5	
Zambia	Maize (white)	51	+19	0	+20	+26	+55	→	100	0	+55	4	
Zimbabwe	Maize	41	-9	-17	-10	-7	+8	↓	81	-13	+6	5	
	Oil (vegetable)	5	+2	+2	-1	-2	-1	→	19			2	

(*) 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	+43	+38	+91	+63	+45	↑	40	+23	+45	5
		Beans	16	+28	+9	+12	+16	+38	↔	26			5
		Cassava flour	13	+18	+15	+51	+43	+36	↑	15			5
		Maize (white)	13	+39	+22	+50	+48	+62	↑	18			5
	Djibouti	Pasta	34	+1	-3	-3	-3	-3	↓	64	+2	-5	4
		Rice (imported)	17	+1	+4	-8	-8	-14	→	20			5
		Sugar	11	+12	+22	+12	+11	+2	↑	16			4
	Ethiopia	Maize (white)	21	+18	+22	+47	+41	+38	↑	28	+17	+24	5
		Pasta	12	-2	+3	-16	-3	+8	→	48			2
		Sorghum	12	+36	+31	+72	+46	+47	↑	24			5
	Kenya	Maize (white)	35	+7	+9	+4	+6	-13	↔	25	-1	+6	5
		Bread	9	-8	-9	-10	-10	-1	↓	19			5
		Milk (cow, pasteurized)	7	-5	-2	-2	-3	+20	↓	56			5
	Rwanda	Beans	11	+28	+23	+36	+41	+48	↑	77	+22	+49	5
		Maize	5	+16	+18	+44	+51	+53	↑	23			5
	Somalia	Sorghum (white)	29	+7	0	-13	-13	-10	→	74	+7	-10	4
		Rice (imported)	9	-2	0	-10	-5	-9	→	26			4
	South Sudan	Sorghum (feterita)	26	-24	-33	+211	+239	+578	↓	31	-21	+621	5
		Wheat flour	15	+32	-8	+341	+348	+637	↓	54			3
		Millet (white)	7	+5	-29	+304	+305	+665	↓	15			5
Uganda	Cassava flour	13	0	+1	-15	+4	+24	→	39	+6	+31	5	
	Maize (white)	9	+11	+16	+10	+18	+42	↑	19			5	
	Beans	5	+1	+4	+9	-1	+29	→	23			5	
	Millet	5	+9	+10	+23	+21	+35	↑	19			5	

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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
West Africa	Burkina Faso	Sorghum	26	-3	+2	-2	0	-4	→	42	0	-4	5
		Millet	22	-3	+2	-1	+1	-4	→	37			
		Maize	16	-11	-5	-7	-4	-4	↓	22			
	Cameroon	Maize	15	-17	-6	-16	-1	-18	↓	38	-12	-23	5
		Rice (local)	10	-18	-24	-19	-17	-33	↓	40			
		Sorghum (white)	8	0	+7	-18	-7	-5	↔	22			
	Chad	Sorghum	18	-11	-3	-19	-20	-11	↓	44	-7	-15	5
		Millet	15	-14	-9	-17	-23	-17	↓	43			
		Maize (white)	5	-18	-11	-15	-22	-19	↓	13			
	Gambia (The)	Rice (long grain, imported)	21	-1	-11	+9	+4	+29	↓	29	-2	+14	4
		Millet	19	+2	-5	+10	-7	+1	↓	15			
		Sugar	12	+8	+6	+31	+14	+19	↔	18			
		Bread	8	+5	+1	+6	+9	+12	→	17			
		Oil (palm)	7	+7	+3	+12	-4	+1	→	9			
		Oil (groundnut)	5	+22	+3	+4	+3	+12	→	6			
		Sorghum	5	+3	-2	-3	+1	+9	↓	5			
	Ghana	Cassava	21	-4	-4	+107	+105	+159	↓	51	-13	+84	5
		Maize	12	-43	-34	-16	-19	+20	↓	12			
		Yam	11	-29	-12	+26	+13	+49	↓	37			
	Guinea	Rice (imported)	37	-4	+3	N/A	N/A	+9	→	72	-1	+8	2
		Cassava meal (gari)	12	+7	N/A	N/A	N/A	N/A	↔	18			
		Oil (palm)	6	+7	+6	N/A	N/A	N/A	↔	10			
	Guinea-Bissau	Rice (imported)	35	-11	-12	N/A	N/A	-24	↓	42	-6	-19	3
		Oil (vegetable, imported)	11	0	+3	N/A	N/A	-1	→	13			
		Fonio	8	-5	+1	N/A	N/A	+17	→	26			
		Maize	8	+2	-11	N/A	N/A	-55	↓	11			
		Sugar	5	0	+2	N/A	N/A	-5	→	8			
	Mali	Rice (imported)	21	+1	+2	+2	+2	0	→	49	+1	-3	5
		Millet	20	+1	+2	+4	+2	-7	→	25			
		Sorghum	13	-1	0	+2	0	-5	→	16			
		Maize	9	-5	-3	+4	0	-3	↓	10			
	Mauritania	Wheat	30	-2	-3	-10	-8	-10	↓	30	+1	+1	5
		Sugar	12	+6	+8	+38	+40	+14	↔	22			
		Oil (vegetable)	11	0	+2	0	0	-2	→	14			
		Rice (imported)	11	+2	0	+6	+4	+18	→	22			
		Sorghum (taghalit)	7	0	+1	-3	-11	-13	→	12			
	Niger	Millet	39	-18	-9	+5	+5	-11	↓	57	-7	-9	5
		Sorghum	11	-12	-5	+5	+3	-6	↓	18			
		Rice (imported)	7	-3	-3	-4	-4	-6	↓	25			
		Sorghum	13	+15	+15	+160	+169	+121	↑	28			
North Nigeria	Millet	11	+1	+7	+111	+100	+73	↔	17	+5	+30	5	
	Maize	8	-10	-1	+111	+109	+125	↓	14				
	Rice (imported)	8	-6	-9	-12	-17	-32	↓	28				
	Oil (palm)	5	+33	+39	+96	+86	+96	↑	12				
	Rice (imported)	30	+1	+1	+3	+2	-2	→	68				
Senegal	Maize (imported)	10	-1	-4	-1	+2	-2	↓	18	+1	-2	5	
	Millet	8	+6	+9	+15	+12	-1	↔	14				
	Rice (imported)	40	-18	-16	N/A	N/A	+22	↓	85				
Sierra Leone	Oil (palm)	9	+16	+3	N/A	N/A	+17	→	15	-15	+21	3	

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

Region	Country	Main staple food	Caloric contribution	Change from last quarter	Seasonally adjusted quarterly change	Monthly change from last year	Quarterly change from last year	Quarterly change from baseline	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]
			(%)	(% change)	(% change)	(% change)	(% change)	from previous quarter			from baseline (%)		
			A	B	C	D	E	F			G	H	
Middle East, North African and Central Asia	Algeria	Pasta	46	+15	+13	-3	-3	-3	↑	84			*
		Sugar	9	+2	+2	+2	+1	+1	→	16	+12	-2	*
	Armenia	Bread (first grade flour)	40	-2	-4	-3	-5	+1	↓	45			4
		Milk	8	+7	+11	-1	+3	+14	↑	42			4
		Sugar	8	+5	+8	+10	+5	-1	↗	6			4
		Potatoes	5	-17	-11	-8	-19	-16	↓	7			4
	Egypt	Pasta	35	+29	+24	+63	+44	+39	↑	59			5
		Rice	12	-14	-20	+10	+4	+22	↓	19	+18	+48	5
		Sugar	7	+65	+62	+145	+113	+125	↑	23			5
	Iran (Islamic Republic of)	Rice (local)	9	+12	+6	+54	+55	+84	↗	74			4
		Sugar	9	-2	-6	+33	+36	+61	↓	26	+2	+78	4
	Iraq	Wheat flour	25	-5	-8	+14	+14	+60	↓	64			3
		Rice	8	-3	-3	-9	-6	-1	↓	36			3
	Jordan	Bread (pita)	38	0	0	+1	+1	+1	→	22			5
		Sugar	15	+1	+2	+7	+7	-2	→	27			4
		Oil (vegetable)	12	+1	+1	-1	0	+4	→	24			5
		Rice (imported)	8	+1	-1	+3	+3	+9	↓	26			5
	Kyrgyz Republic	Bread	40	0	-3	-3	-3	+10	↓	78			5
		Potatoes	8	0	0	+44	+24	0	→	22			5
	Lebanon	Bread (pita)	30	0	+2	-2	-1	-7	→	82			4
		Sugar	11	+11	+8	+29	+31	-5	↗	18			4
	State of Palestine	Wheat flour	40	-4	-7	-10	-10	-16	↓	39			5
		Sugar	10	0	-2	+5	+5	-8	↓	15			5
		Rice (small grain, imported)	7	-2	-2	-3	-3	+12	↓	17			5
		Oil (olive)	5	-1	-3	+2	+1	+11	↓	29			5
		Sorghum	60	-5	-7	+14	+17	+52	↓	85			5
	Sudan	Millet	9	-5	-6	+9	+14	+46	↓	15			5
		Bread (bakery)	39	+6	-5	+48	+17	+135	↓	21			4
		Sugar	13	+23	+2	+52	+52	+298	→	53			5
	Syria	Oil	11	+11	-3	+42	+41	+179	↓	27			5
Bread		54	-1	-6	-1	0	+33	↓	91			5	
Sugar		7	+1	+4	+19	+20	+27	→	5			5	
Tajikistan	Oil (cotton)	6	-1	-2	+9	+9	+17	↓	3			5	
	Maize	5	-1	+10	0	-4	+3	↑	1			5	
	Bread (common)	41	+6	+11	+20	+17	+22	↑	62			3	
Turkey	Sugar	8	+1	+5	+6	+7	+13	↗	10			3	
	Milk (pasteurized)	5	0	0	+5	+5	+8	→	27			3	
	Bread (rye)	29	+3	-2	+8	+7	+31	↓	39			2	
Ukraine	Oil (sunflower)	9	+1	0	+10	+13	+41	→	8			2	
	Potatoes	8	0	-2	-13	-13	+13	↓	12			2	
	Milk	7	+13	+6	+30	+26	+43	↗	41			2	
Yemen	Wheat	38	+2	+3	N/A	N/A	+3	→	46			4	
	Sugar	12	+1	+6	+24	+13	+16	↗	24			4	
	Oil (vegetable)	9	-3	-3	-18	-31	-28	↓	9			4	
	Rice (imported)	6	0	+10	N/A	N/A	+77	↑	20			3	

(*) 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	-1	-1	-1	+1	↓	78	-1	+2	2
		Rice (low quality)	22	0	-2	+4	+6	+4	↓	22			5
	Bangladesh	Rice (coarse)	70	+17	+17	+30	+29	+17	↑	93	+15	+15	5
		Wheat flour	6	+1	-1	-5	-5	-9	↓	7			5
	Cambodia	Rice (mix)	65	-8	-9	-11	-6	-16	↓	100	-9	-16	5
	India	Rice	31	+2	+1	+4	+3	+11	→	51			5
		Wheat	22	+6	+3	+13	+10	+23	→	34	+1	+16	5
		Sugar	7	+1	-1	+28	+29	+17	↓	16			5
	Indonesia	Rice	50	0	-2	0	0	+17	↓	79			5
		Oil (vegetable)	7	+1	+2	+7	+6	+8	→	5			5
		Sugar	6	-4	-4	+12	+13	+23	↓	10			5
		Wheat	6	0	-1	+1	+1	+5	↓	6			5
	Lao PDR	Rice (glutinous, first quality)	64	-12	-12	+7	+9	+11	↓	100	-12	+11	5
	Myanmar	Rice (low quality)	55	+9	+10	+17	+16	+43	↑	100	+10	+43	5
	Nepal	Rice	32	-3	-4	+3	+1	+10	↓	65			5
		Wheat	15	0	-2	+3	+1	+12	↓	35	-2	+11	5
	Pakistan	Wheat	37	+3	-4	0	0	-3	↓	18			2
		Sugar	11	-2	+1	+11	+17	+20	→	9			3
		Milk	9	0	N/A	+1	+1	+1	→	59	0	0	2
		Oil (cooking)	9	0	+2	-1	0	-10	→	9			3
Rice (basmati, broken)		6	-1	0	-3	-6	-8	→	5			5	
Philippines	Rice (regular, milled)	48	-1	-1	-4	-2	+7	↓	49	0	+5	4	
	Meat (pork)	7	+1	0	0	0	+3	→	51			4	
Sri Lanka	Rice (white)	41	+14	+10	+25	+19	+25	↑	73	+7	+15	5	
	Wheat (flour)	14	-1	-1	+3	+2	-4	↓	27			5	
Thailand	Rice (25% broken)	48	-9	-8	+2	-1	-17	↓	100	-8	-17	5	
Viet Nam	Rice (20% broken)	59	-2	-6	-11	-8	-18	↓	100	-6	-18	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 price¹ changes of the main food items (those that contribute at least 5% of caloric intake²):

- 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.³
- 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 prices⁴ (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 density⁵ 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 cost⁶ 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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