



RECENT FOOD PRICE DEVELOPMENTS IN MOST VULNERABLE COUNTRIES - Issue #1, August 2008 -

The objective of this briefing note is to provide early warning information on recent price developments and their potential contribution to the cost of the food basket, using staple food commodities that are essential in terms of calorie contribution to households' food basket at individual country-level. The note is not meant for cross-country comparison as the main staple food items and their calorie contributions to the food basket are different. As a working paper to be updated on a quarterly basis, further fine-tuning of the approach (see annex 2) will be taken into account in future issues. Table 1 summarizes the results.

1. Recent Price Patterns

- ✓ In 2008, staple food commodity prices are generally above their five-year seasonal averages, except for Burkina Faso (sorghum and millet), Mali (sorghum and millet), Cote d'Ivoire (maize), Burundi (sweet potatoes), Uganda (plantains/matoke and sweet potatoes) and Rwanda (Cassava, sweet potatoes, Irish potatoes and plantains).
- ✓ Seasonal price increases of the main energy contributors are particularly high in Eastern and Southern Africa (Ethiopia, Somalia, and Zimbabwe) and Asia (Afghanistan, Sri Lanka, Bangladesh, Cambodia and OPI) and to a lesser extent in West Africa, with Benin witnessing the highest seasonal price increases.
- ✓ The patterns of seasonal price increases since 2007 are generally similar to the 5-year seasonal pattern, suggesting major seasonal price increases occurred other the last 12 months (2007/2008).
- ✓ The most recent monthly price increase is generally higher than the year average in most of the countries, suggesting an upward trend of prices of major energy contributors, except in Mali (sorghum and millet), Cote d'Ivoire (yams) and Zimbabwe (maize).

2. Potential Impact on the Cost of the Food Basket

Countries are classified into three categories, based on the cumulative contribution of average monthly price changes in 2008 to the cost of the food basket:

- ✓ **Countries of serious concern (Category 1):** Benin, Ethiopia, Somalia, Zimbabwe, Afghanistan, Sri Lanka, Bangladesh, Cambodia and Palestine¹. The situation in these countries is one of an alert because of the very high price increases of the major calorie contributors. They depend on few commodities that provide 30-50 percent in African countries and 50-80 percent in Asian and Middle East countries, of the calorie requirements of the population.
- ✓ **Countries of concern (Category 2):** Burkina Faso, Senegal, North Nigeria, Mozambique, Lao PDR, Sudan, Kenya, Pakistan, and El Salvador. The main concern in these countries relates to significant price increases of a single staple food commodity which provides at least a third of the population's calorie intake, except for Burkina Faso and North Nigeria where the calorie sources are relatively diverse.
- ✓ **Countries to monitor (Category 3):** Other countries not included in category 1 and 2 witnessing either moderate or low impacts on the cost of the food basket, are worth monitoring given their initial high level of vulnerability.

Price impact assessments are being (or should be) undertaken in the first two categories of countries to apprehend the extent to which households' food security situation has been affected and enable negative impact mitigation responses. A close monitoring of the situation is required in all these countries given the continued upward trend of key food commodity prices.

¹ Monthly prices in Zimbabwe were adjusted by the hyperinflation rates before the calculation of indices. This adjustment was necessary to account for macro-economic inflation which is fuelled by domestic currency devaluation and consecutive revaluations made by the government in August 2006 and August 2008.

Table 1: Magnitude of Monthly Price Changes and Contribution to the Cost of the Food Basket, by Country and Commodity

Regions	Countries	Main staple food	Number of months included in 2008	Caloric contribution (%)	Most Recent Month (% change from 12 months earlier)	Monthly Average (% change from 12 months earlier)	Monthly Average (% change from 5 year average)	Contribution to the Cost of the Food Basket (%)		Price Trend of the Main Staples	GVI&FFEI Score	Remarks (Contribution of prices to the cost of the food basket)
								Individual Commodity I=E*G	Cumulative J			
A	B	C	D	E	F	G	H	I=E*G	J	K	L	M
West Africa	Benin	Maize	7	19	255	149	79	28	35	↑	0.40	Very high. Watch maize
		Rice	7	8	45	40	46	3				
		Sorghum	3	7	79	56	26	4				
	Burkina Faso	Sorghum	6	28	29	13	1	4	12	→	0.37	High
		Millet	6	23	29	9	-2	2				
		Maize	6	14	17	36	12	5				
	Côte d'Ivoire	Rice	6	7	80	20	20	1	8	↑	0.36	Moderate. Watch rice
		Yams	7	13	-3	14	33	2				
		Maize	7	11	20	12	-5	1				
	Guinea	Cassava	7	10	0	0	18	0	-2	→	0.27	Low. Data issue
		Rice	4	32	14	-8	8	-3				
		Palm oil	4	5	41	8	36	0				
	Mali	Potatoes	4	4	33	12	32	0	6	↑	0.33	Moderate. Watch rice
		Millet	6	21	-7	2	-6	0				
		Rice	6	20	24	13	16	3				
	Niger	Sorghum	6	15	-2	8	-3	1	10	→	0.25	Moderate. Watch millet
		Maize	6	11	16	20	10	2				
		Millet	5	48	18	12	7	6				
	North Nigeria	Rice	5	12	25	17	11	2	16	↑	0.38	High. Watch sorghum, maize and millet
		Rice	5	8	18	18	22	1				
Maize		5	2	52	39	26	1					
Senegal	Sorghum	6	13	72	52	30	7	12	↑	0.42	High. Watch rice	
	Millet	6	11	39	31	19	3					
	Rice	6	10	26	16	12	2					
	Maize	6	7	91	65	42	5					
Senegal	Rice	6	32	22	20	33	6	12	↑	0.42	High. Watch rice	
	Millet	5	10	37	32	30	3					
	Sorghum	5	4	39	27	26	1					
	Maize	5	4	37	32	25	1					

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								Individual Commodity	Cumulative			
A	B	C	D	E	F	G	H	I=E*G	J	K	L	M
East and Southern Africa	Burundi	Sweet Pot'oes	5	19	-30	-49	-34	-9	-3	↑	0.21	Low. Watch beans and cassava
		Beans	5	18	53	40	91	7				
		Cassava flour	5	15	-2	-9	29	-1				
	Ethiopia	Maize	7	21	241	147	148	31	58	↑	0.27	Very high. Watch maize, wheat and sorghum
		Wheat	7	18	120	74	77	13				
		Sorghum	7	10	262	133	133	13				
	Kenya	Maize	4	35	71	52	20	18	18	↑	0.36	High. Watch maize
	Madagascar	Domestic Rice	7	49	11	-3	9	-2	-2	→	0.31	Low
	Mozambique	Maize	6	24	85	75	66	18	20	↑	0.34	Very high. Watch maize
		Rice	6	5	60	37	75	2				
	Rwanda	Sweet Pot'oes	7	16	-26	-40	-34	-6	-11	↓	0.27	Low. Watch beans
		Cooking Banana	7	16	-17	-23	-17	-4				
		Cassava	7	14	-22	-25	-13	-3				
		Beans	7	12	29	28	38	3				
		Irish Potatoes	7	11	7	-11	2	-1				
	Somalia	Sorghum	7	29	352	199	188	58	140	↑	0.08	Very high. Watch rice, maize, wheat and sorghum
		Maize	7	18	378	242	238	44				
		Wheat flour	7	10	287	199	264	20				
	Sudan	Import Rice Red	7	9	317	209	270	19	12	↑	0.41	High. Watch sorghum
		Sorghum	5	30	75	42	11	12				
	Uganda	Plantains	4	18	0	0	-14	0	3	→	0.40	Low. Watch cassava and maize
Cassava		4	13	7	5	10	1					
Maize		4	11	12	3	24	0					
Sweet Pot'oes		4	10	3	-12	-12	-1					
Zimbabwe	Beans	4	7	56	41	72	3	59	↑	0.15	Very high. Watch maize	
Maize	5	39	-32	150	68	59						

Regions	Countries	Main staple food	Number of months included in 2008	Caloric contribution (%)	Most Recent Month (% change from 12 months earlier)	Monthly Average (% change from 12 months earlier)	Monthly Average (% change from 5 year average)	Contribution to the Cost of the Food Basket (%)		Price Trend of the Main Staples	GVI&FFEI Score	Remarks (Contribution of prices to the cost of the food basket)
								Individual Commodity	Cumulative			
A	B	C	D	E	F	G	H	I=E*G	J	K	L	M
Asia	Afghanistan	Wheat	6	58	126	110	168	64	77	↑	0.09	Very high. Watch wheat and rice
		Rice	6	22	66	61	61	13				
	Bangladesh	Boro-HYV-Coarse	6	72	46	56	56	40	51	↑	0.43	Very high. Watch coarse rice and wheat (ata)
		Ata-Packet	7	9	101	100	189	9				
		Soyabeans	7	3	63	54	72	2				
	Cambodia	Rice	7	69	92	74	104	51	51	↑	0.44	Very high. Watch rice
	Indonesia	Cheaper Rice	2	50	5	2	23	1	1	→	0.49	Low. Watch rice
	Lao PDR	Rice	5	65	37	19	66	12	12	↑	0.45	Moderate. Watch rice
	Nepal	Rice	7	37	44	21	33	8	8	↑	0.45	Moderate. Watch rice and wheat
		Wheat	7	14	28	5	31	1				
Pakistan	Wheat flour	6	38	54	40	52	15	20	↑	0.45	Very high. Watch wheat and rice	
	Rice	6	7	68	68	99	5					
Sri Lanka	Rice	6	38	58	46	76	18	28	↑	0.53	Very high. Watch rice and wheat	
	Wheat	6	14	69	71	131	10					
Others	El Salvador	Maize	6	31	-4	19	50	6	14	↑	0.61	High. Watch maize
		Sorghum	6	6	25	31	58	2				
		Bean	6	5	88	64	83	3				
		Rice	6	4	85	66	70	3				
	Palestine (OPT)	Wheat flour	5	38	98	90	110	34	38	↑	0.60	Very high. Watch wheat flour and rice
		Rice	5	7	61	37	36	3				
		Olive oil	5	5	19	19	21	1				

Note		
	Low price impact on the cost of the food basket (0-5%)	→ % Change from 5-year average (Column H) > -10% and < +10%
	Moderate impact on the cost of the food basket (5-10%)	↑ % Change from 5-year average (Column H) > +10%
	High price impact on the cost of the food basket (10-20%)	↓ % Change from 5-year average (Column H) < -10%
	Very high price impact on the cost of the food basket (> 20%)	GVI & FFEI Score: the lower the score the higher the country is vulnerable to food and fuel price increases

Annex 1: Names and Number of Markets Covered by Country

Regions	Countries	Number of Markets	Names of Markets Included
West Africa	Burkina Faso	38	Banfora, Bittou, Bogandé, Botou, Dandé, Diapaga, Diébougou, Djibasso, Djibo, Dori, Fada N'Gourma, Fara, Faramana, Gaoua, Gorom-Gorom, Gounghin, Guelwongo, Hamélé, Kaya, Kongoussi, Koudougou, Léo, Manga, Namounou, N'Dorola, Niangoloko, Niéneta, Ouahigouya, Paglayiri, Pouytenga, Sankaryaré, Solenzo, Tenkodogo, Tougan, Tougouri, Zabré
	Mali	7	Bamako, Gao, Koulikor, Mopti, Sikasso, Segou, Tombouctou
	Niger	47	Agadez Commune, Arlit, In'gall, Tchirozine, Diffa Commune, Goudoumaria, N'guigmi, Dogondoutchi, Dosso Commune, Fadama, Gaya, Loga, Mokko, Dioundiou, Aguié, Tchadoua, Dakoro, Sabon-Machi, El-Kolta, Dan-Issa, Maradi-Commune, Tessaoua, Mayahi, Abalack, Badaguichiri, Bouza, Konni, Tahoua Commune, Tountafi, Tchintabaraden, Ballayara, Filingué, Gothéye, Tera, Kirtachi, Ouallam, Tillabéri commune, Torodi, Bakin-Birgi, Torodi, Dungass, Gouré, Koundoumawa, Matameye, Magaria, Zinder commune, Niamey
	Senegal	42	Mpal, Touba, Porokhane, Touba Toul, Gossas, Kolda, Dodel, Orkodiére, Nindiy, Kouthiaba, St. Louis, Thiodaye, Gouille Mbeuth, Thilmakha, Bambey, Mbar, Ndrame Escale, Mereto, Bakel, Castors, Thiaroye, Fatick, Velingara, Sagatta, Thies, Tilène, Gueule Tapée, Keur I. Yacine, Tambacounda, Bignona, Dagana, Thille Boubacar, Ourossogui, Louga, Mbfafaye, Diourbel, Diakhao, Kaolack, Sare Yoba, Sedhiou, St. Maur, Passy
	Benin	2	Mallanville, Dantokpa
	Côte d'Ivoire	12	Korhogo, Bouaké, Man, Abengourou, Adjamé, Daloa, Ferké, Katiola, Danané, Guiglo, Odiénné, Duékoué,
	Guinea	5	Conakry, Kankan, Kindia, Labe, N'zerekore
	North Nigeria	5	Jibia, Illela, Mallanville, Mai Adua, Damassak
East and Southern Africa	Ethiopia	56	Babile, Gordamole, Merti, Wekro, Abi Adi, Sekota, Ebinat, D.Dawa, Karati, Turmi, Dangur, Addis Ababa, Gonder, Mekele, Desse, Ambo, Jimma, Nazareth, Shashemene, Baher Dar, Bale Robe, Hossana, Delo, Beddenno, Abomsa, Bedessa, Deder, Wolenchiti, Yabelo, Wekro, Alamata, Korem, May Tsebri, Gode, Jijiga, Wonago, Awassa zuriya, Gamo Gofa, Deberesina, Shoa Robit, Kobo, Bati, Dire Dawa, Harar ketema, Hirna, Sodo, Derashe, Aroresa, Amaro, Gololcha, Kersa, Ajeber, Mota, Ambo, Gonder, Assela,
	Sudan	14	EL Gedaref, Rabak, EL Rank, Sinnar, ED Damazine, El Obeid, Abu Jibeiha, El Nuhood, Nyala, El Fasher, UM Dorman, Dongola, Medani, Atbara
	Mozambique	7	Maputo, Chokwe, Beira, Gorongosa, Manica, Nampula, Lichinga,
	Uganda	6	Kampala, Jinja, Masaka, Mbarara, Gulu, Arua
	Kenya	24	Nairobi, Mombasa, Kisumu, Nakuru, Eldoret, Embu, Busia, Thika, Meru, Kitui, Kisii, Taveta, Nyahururu, Loitoktok, Machakos, Kutus, Kajiado, Namanga, Tharaka, Muranga North, Karatina, Bungoma, Garissa,
	Burundi	6	Bujumbura, Ngozi, Kirundo, Muyinga, Gitega, Ruyigi
	Madagascar	1	Ariary
	Rwanda	All	All districts central markets
	Somalia	27	Baidoa, Bardera, Belet Weyne, Xudur, Luuq, Afgoye, Jowhar, Marka, Qoryoley, Mogadishu, Afmadow, Buale, Doble, Jamame, Kismayo, Hagar, Bossaso, Erigavo, Garowe, Lasanod, Borama, Burao, Hargeisa, Abudwaq, Dhusamareb, Galkayo
	Zimbabwe	4	Harare, Bulawayo, Masvingo, Mutare
Asia	Afganistan	11	Kabul, Kandahar, Jalalabad, Herat, Mazar, Faizabad, Gerzet, Bamian, Maimanan, Nili, Ghor
	Lao	8	Vientiane, Luangprabang, Oudomxay, Sayabuly, Savannakhet, Khammuane, Saravan, Champasack,
	Sri Lanka	8	Ampara, Batticaloa, Jaffna, Kilinochchi, Mannar, Mulaitivu, Trincomalee, Vavuniya,
	Pakistan	5	Lahore, Multan, Karachi, Peshawar, Quetta
	Bangladesh	5	Dhaka, Khulna, Shariatpur, Sirajganj, Sylhet,
	Cambodia		Sihanouk, Siem, Phnom Penh, Kandal, Kampong, Battambang
	Indonesia	30	Banda Aceh, Medan, Padang, Padang Baru, Jambi, Palembang, Bengkulu, Bandarlampung, Pangkal Pinang, Jakarta, Bandung, Semarang, Yogyakarta, Surabaya, Denpasar, Mataram, Kupang, Pontianak, Palangkaraya, Banjarmasin, Samarinda, Manado, Palu, Makassar, Kendari, Gorontalo, Ternate, Ambon, Jayapura, Balikpapan
Nepal	21	Auchham, Bhojpur, Dhankuta, Doti, Ilam, Jumla, Kaski, Kathmandu, Nuwakot, Palpa, Rolpa, Ramechap, Surkhet, Banke, Chitwan, Dhanusha, Jhapa, Kailali, Morang, Parsa, Rupandehi	
Others	El Salvador	All	All provinces central markets
	Palestine	11	Jenin, Tulkarm, Qalqiliya, Nablus, Ramallah & Al-Bireh, Jericho, Bethlehem, Hebron, North Gaza, Miedel Gaza, South Gaza

Note: Data is collected and compiled by WFP country offices, mainly from government official price data sources

Annex 2: Approach

The note covers primarily countries that are identified as most vulnerable according to the Global Vulnerability Index (GVI) and the Food and Fuel Effect Index (FFEI) classification of WFP².

The analysis is based on monthly price indices³ of the main calorie contributors to household food consumption, using:

- i) The most recent (year-on-year) monthly price changes calculated as a percentage change from 12 months earlier. Column F (Table 1) reflects the percentage change of the most recent monthly price data available (e.g. August 2008) compared with the same month a year ago (i.e. August 2007).
- ii) The average (year-on-year) monthly price change in the current year is the sum of the monthly percentage changes from 12 months ago divided by the number of months for which data is available in the current year (Column G). This average percentage change indicates whether the price has accelerated in the current year compared with the previous year.
- iii) The average (year-on-year) monthly price change in the current year calculated as the average monthly percentage change (say from January to August 2008) from corresponding seasonal prices of the last 5 years (Column H). For instance, the corresponding January average price of the last 5 years (2003-2007) is the average price calculated as the sum (January 2003+January2004+...+January2007)/5. This average is taken as the basis for the calculation of the monthly index in January 2008. The same calculation is repeated for each month. Then the sum of the percentage changes from the corresponding seasonal averages is divided by the number of months for which data is available. This estimate indicates whether there is a structural shift of the current price from its long-term seasonal pattern⁴.

The percentage changes of these monthly price indices enable checking the extent to which monthly price increases in 2008 can be considered normal or abnormal compared to recent years. The period covered by country varies depending on data availability (Column D). Column E displays the calorie contribution of each food item to household energy intake.

Assuming the calorie contribution is a proxy of the relative importance of the food item in the food basket⁵, the likely impact of the current year's average monthly price increase on the cost of the food basket is captured in column I (i.e. the percentage price change in column G weighted by the calorie contribution of the food item in column E). The likely impact of price changes is considered low when the estimated cumulative percentage impact on the cost of the food basket is below 5 percent (Column J). Between 5 percent and 10 percent it is considered moderate. Above 10 percent the likely impact on the cost of the food basket is considered high and very high above 20 percent. Households with diverse calorie sources are likely to be less negatively affected by price rises than households with a single calorie source, unless significant price increases are witnessed for each major calorie contributor of the food basket.

This approach is simple to enable early warning. However, it should be interpreted with caution as it does not capture the impact of higher food prices, which have increased rapidly after 2005. The approach assumes only direct likely impacts. No indirect impact is accounted for. For instance, it does not account for substitution and income effects due to price changes. It does not provide insights into the causes of the price increases either. Furthermore, this approach does not account for the severity of the likely impact which may differ between households due to different incomes and food baskets by wealth or livelihoods groups and coping capacity.

² WFP (2008): Identification of Countries Highly Vulnerable to Increased Food Commodity and Fuel Prices.

³ Prices are calculated as indices, using reference years, i.e. last year to capture 12-month percentage changes and last 5 years to capture percentage changes from the long term patterns.

⁴ Prices normally vary throughout a year due to seasonal patterns of the production cycle. Accounting for seasonality helps differentiating between normal seasonal price variations with additional changes which can be considered abnormal, depending on the magnitude of those changes.

⁵ Calorie contributions are based on FAO 2001-2003 estimates. Comparing FAO estimates of calorie contribution of each food item with a study by Reardon (1993) for selected countries in Africa, it appears in rural areas that the majority of households get most of their calorie intake from a few food items. The national patterns will likely reflect the rural patterns, assuming most of households live in rural and semi-urban areas in the developing countries.