

## REPUBLIC OF RWANDA



NATIONAL INSTITUTE OF STATISTICS OF RWANDA

**CONSUMER PRICE INDEX (C.P.I.)  
Kigali – August 2007****CAUTION**

The National Institute of Statistics of Rwanda is very pleased to deliver to users the new Consumer Price Index (CPI) based in 2003 that replaces the previous one which was based in 1989. **The Index is published every month by the 15th.**

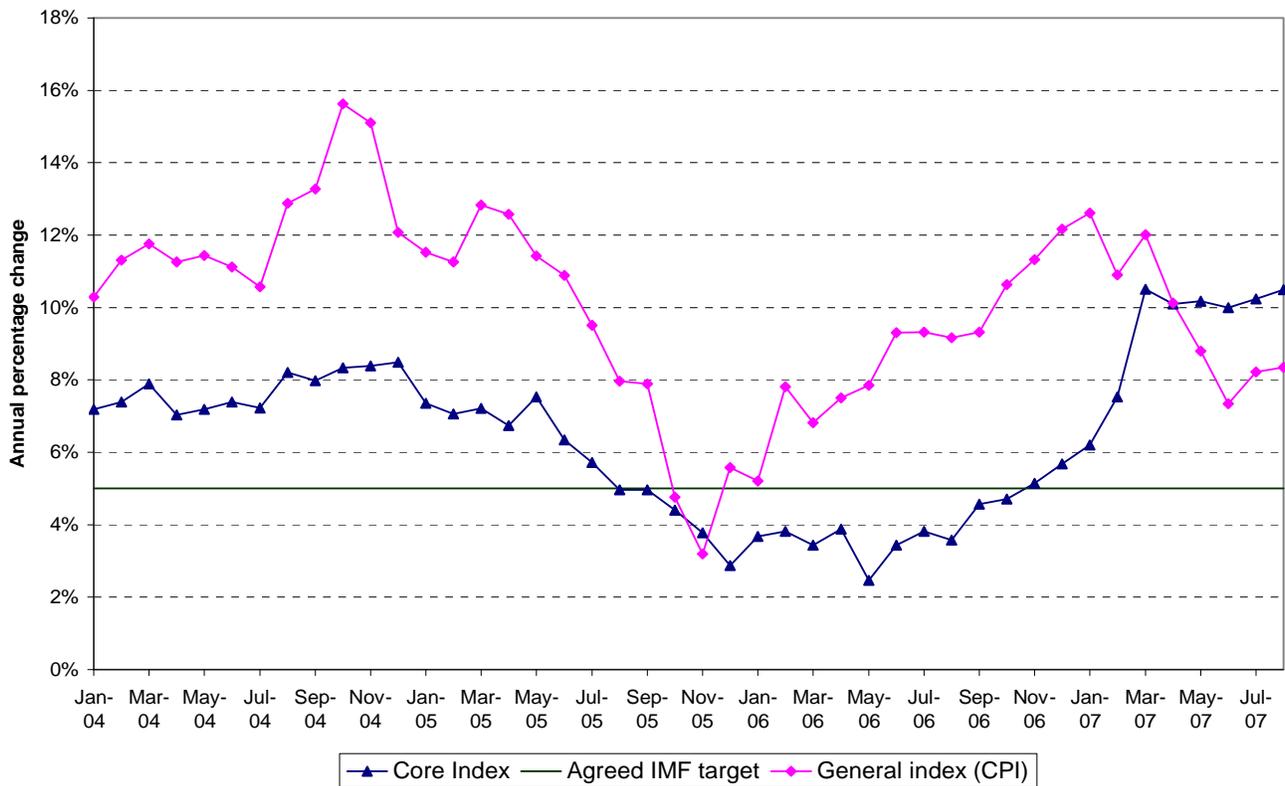
The **Consumer Price Index (CPI)** in August has risen **1.17%** compared to last month. The annual inflation rate now stands at **8.35%**, (August 2007 compared to August 2006). The **core inflation** – which excludes fresh produce and energy prices – went up slightly over the month by **0.40%**, and now stands at **10.50%** as compared to August 2006.<sup>1</sup>

In August 2007 the average **all items index** and the **core index** of the last twelve months (September 2006 to August 2007) increased by **10.1%** and **8.0%**, respectively when compared to the average of these indices in the previous twelve months (September 2005 to August 2006). (See section 'CPI and Core Inflation (Annual Average Percentage Change' for more details)

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<sup>1</sup> Core inflation is a measure of inflation which excludes items that face volatile price movements. Therefore, it records the underlying movement of prices in the economy without taking into account the large swings in prices of seasonal food production and any prices shocks to energy.

### Annual changes (Comparison with the same month of the previous year)



The main upward pressure on monthly changes was a result of rising *food and non-alcoholic beverages* prices, (+3.11%). In particular the price of *vegetables* went up by 5.49%.

This month there was slight downward pressure on general prices sourced from *Recreation and culture* falling 1.07%.

Changes over the year show upward pressure driven mostly by *housing, water, electricity, gas and other fuels*. This is largely due to rising prices of rents (+54.1%), water (+34.8%).

The table below gives more in depth information on the price movements throughout the past months and year:

**Base 100: 2003**

	Divisions ❖ Groups	Weights	Indices for the following months:					Changes in % over		
			Aug 06	May 07	Jun 07	Jul 07	Aug 07	1 month	3 months	12 months
	<b>GENERAL INDEX</b>	<b>10 000</b>	134.8	143.9	143.2	144.3	146.0	1.17	1.46	8.35
<b>01</b>	<b>Food and non-alcoholic beverages</b>	<b>3 709</b>	150.1	150.9	148.8	150.6	155.2	3.11	2.85	3.45
0111	❖ Bread and cereals	<b>625</b>	143.0	151.1	147.9	146.0	148.0	1.40	-2.04	3.50
0112	❖ Meat	<b>345</b>	121.1	118.4	119.5	119.8	121.3	1.22	2.40	0.17
0113	❖ Fish	<b>114</b>	140.8	154.0	153.7	154.7	151.2	-2.27	-1.82	7.38
0117	❖ Vegetables	<b>1 332</b>	171.4	168.4	164.3	169.4	178.7	5.49	6.16	4.29
<b>012</b>	<b>❖ Non-alcoholic beverages</b>	<b>180</b>	125.4	131.0	131.9	131.7	132.6	0.67	1.25	5.76
<b>02</b>	<b>Alcoholic beverages and tobacco</b>	<b>221</b>	115.5	127.8	127.9	129.0	128.4	-0.49	0.41	11.12
<b>03</b>	<b>Clothing and footwear</b>	<b>500</b>	106.8	103.8	104.6	108.5	109.8	1.16	5.73	2.82
<b>04</b>	<b>Housing, water, electricity, gas and other fuels</b>	<b>1 579</b>	158.4	191.7	191.3	192.5	192.2	-0.15	0.25	21.34
<b>05</b>	<b>Furnishing, household equipment and routine household maintenance</b>	<b>764</b>	117.1	119.1	118.9	119.7	119.9	0.20	0.70	2.42
<b>06</b>	<b>Health</b>	<b>708</b>	107.3	122.5	122.2	123.0	122.1	-0.69	-0.31	13.85
<b>07</b>	<b>Transport</b>	<b>987</b>	114.6	123.4	123.5	123.6	123.6	-0.02	0.17	7.84
<b>08</b>	<b>Communication</b>	<b>37</b>	110.1	135.3	135.3	135.3	135.3	0.00	0.00	22.94
<b>09</b>	<b>Recreation and culture</b>	<b>206</b>	113.3	107.0	107.6	107.7	106.6	-1.07	-0.43	-5.93
<b>10</b>	<b>Education</b>	<b>432</b>	139.3	155.8	155.9	156.1	156.1	0.00	0.21	12.02
<b>11</b>	<b>Restaurants and hotels</b>	<b>273</b>	115.8	148.0	148.6	142.1	141.7	-0.25	-4.23	22.40
<b>12</b>	<b>Miscellaneous goods and services</b>	<b>584</b>	109.5	111.1	106.3	107.8	109.8	1.84	-1.16	0.26

Month	Aug 06	Sep 06	Oct 06	Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07	Aug 07
Index (2003=100)	134.8	136.2	136.4	135.7	137.0	140.0	142.9	146.4	145.9	143.9	143.2	144.4	146.0
Annual changes	9.1	9.3	10.6	11.3	12.1	12.61	10.9	12.0	10.1	8.8	7.3	8.3	8.4

The table below can explain the recent price movements in the economy by looking at different sources of inflation. It shows that *'local goods'* are inflationary, contrary to those which are *'imported'*; over the past year (August 2007 to August 2006) we see an **11.52%** increase in prices for locally produced goods compared to only **0.12%** rise for imported goods. This is important when considering that locally produced goods account for 70% of the basket of goods and services included in the CPI calculations, and imports are only 30%. This table also highlights that *'fresh produce'* prices rose **4.66%** as compared to August 2006. This is very unusual, for recent trends show *'fresh produce'* prices with very high annual rates, sometimes reaching 35% (January 2007). These high rates started going down in April this year. However, this month we are starting to observe a resurgence of the past trend even though still at a low level. But past experience shows that *'fresh produce'* prices ought to be kept in check.

In addition, this month's prices have shown an increase in both *fresh products* and *locally produced* goods, by **4.63%** and **1.34%**, respectively. Last month, these rates-even though in positive territory-were markedly lower (1.87% and 0.96%, respectively) and, for the past two months, they are the reversal of a trend of negative rates that started last February. All this may be related to increased supplies of fresh produce from the season B then followed by the reduction of said supplies due to low output. The *energy* index went down by 0.60% over the month; it had gone up by 1.09% last month.

### Underlying, Imported and Other Indices

	Weights	Indices for the following months:				Changes in % over:			
		Aug-06	May-07	Jun-07	Jul-07	Aug-07	1 month	3 months	12 months
<b>General Index</b>	<b>10 000</b>	134.8	143.9	143.2	144.3	146.0	1.17	1.46	8.35
<b>Local Goods Index</b>	<b>6 956</b>	139.0	152.4	151.6	153.0	155.1	1.34	1.76	11.52
Food and non-alcoholic beverages	<b>2 627</b>	155.3	155.5	153.3	155.7	161.2	3.54	3.69	3.80
Housing, water, electricity, gas and other fuels	<b>1 501</b>	155.9	192.0	191.1	192.5	192.0	-0.23	0.04	23.16
Transport	<b>698</b>	105.6	114.2	114.2	114.2	114.2	0.00	-0.01	8.07
<b>Imported Goods Index</b>	<b>3 044</b>	124.1	123.3	122.7	123.4	124.3	0.67	0.79	0.12
Food and non-alcoholic beverages	<b>1 082</b>	136.6	139.3	136.8	136.9	139.6	1.98	0.25	2.22
Furnishing, household equipment	<b>533</b>	115.7	117.7	118.3	118.3	118.0	-0.29	0.23	2.01
Transport	<b>289</b>	135.8	145.4	145.7	146.2	146.1	-0.03	0.52	7.64
<b>Kigali Index</b>	<b>7 679</b>	133.4	142.3	141.6	142.5	144.2	1.18	1.33	8.14
<b>Provinces Index<sup>(1)</sup></b>	<b>2 321</b>	139.3	149.3	148.4	150.3	152.1	1.16	1.87	9.20
<b>Fresh Products<sup>(2)</sup> index</b>	<b>1 829</b>	164.9	166.3	161.9	164.9	172.5	4.63	3.73	4.66
<b>Energy index</b>	<b>761</b>	221.3	230.5	228.5	231.0	229.6	-0.60	-0.38	3.72
<b>General Index excluding fresh Products and energy<sup>(3)</sup></b>	<b>7 410</b>	118.4	129.5	129.8	130.3	130.9	0.40	1.07	10.50

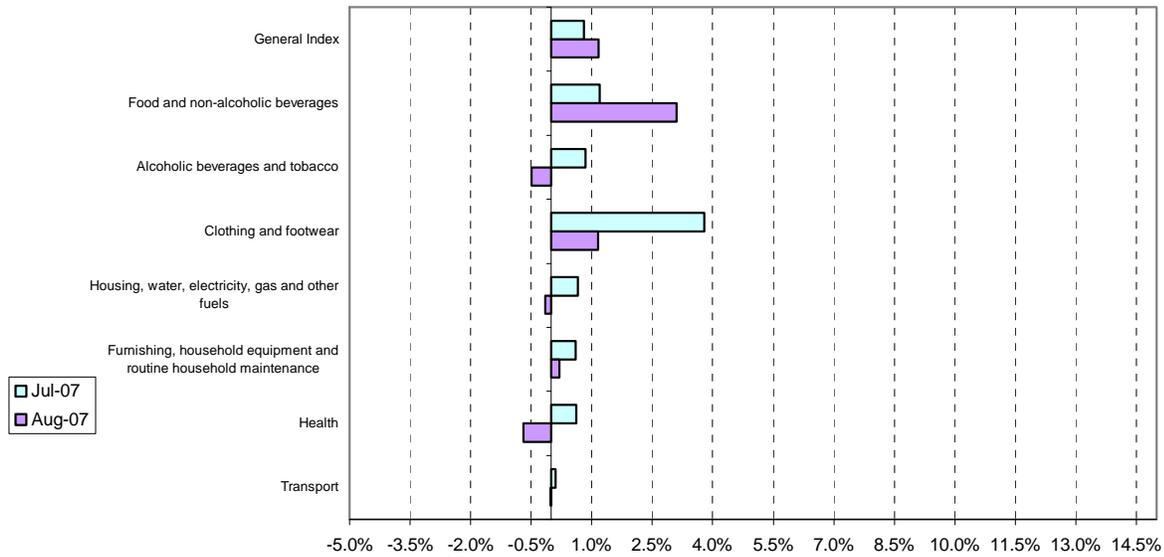
(1) This is the national index without Kigali

(2) Fresh products are food products which have seasonal fluctuations

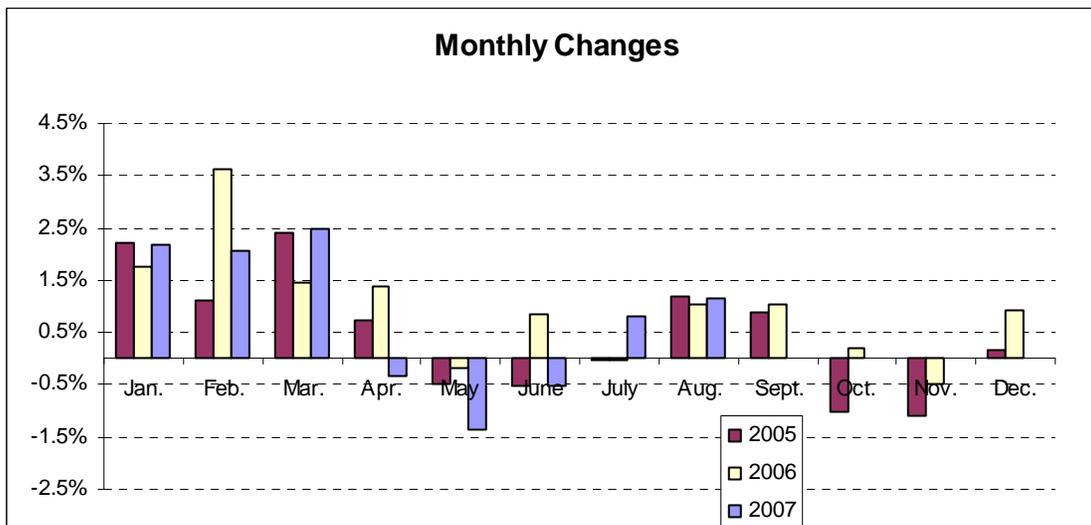
(3) Proxy for underlying inflation

The figure below shows the monthly price fluctuations in the CPI. It highlights that the prices of '*alcoholic beverages and tobacco*', '*housing, water, electricity, gas and other fuels*', and '*health*' in August have decreased, contrary to last month. The largest increase was sourced from *food and non-alcoholic beverages*, rising 3.1% over the month.

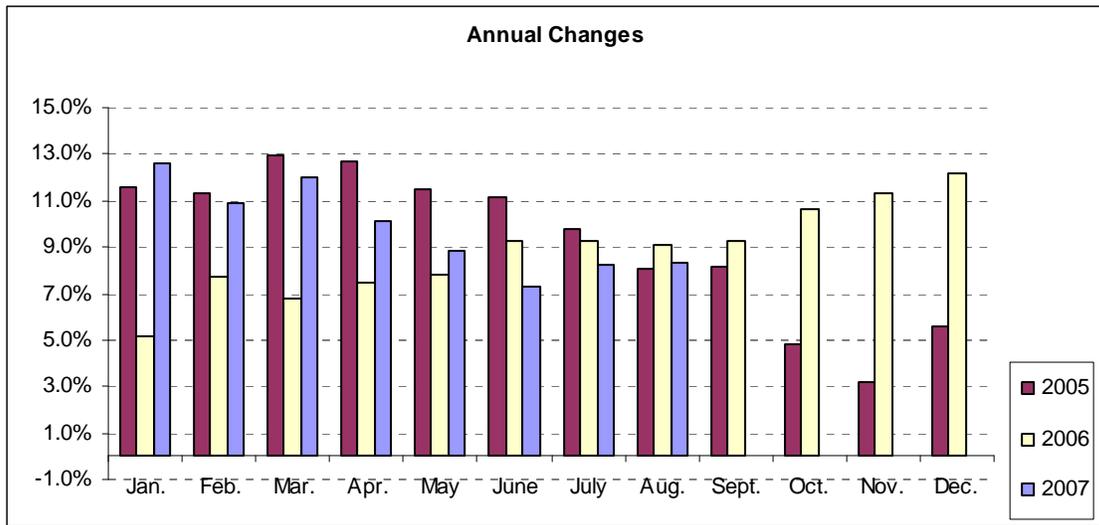
Fluctuations of the general index and the divisions' index in July 2007 and August 2007



As can be seen in the monthly changes chart below, the August monthly inflation rate is the next step of an upward trend in monthly changes rates since June.



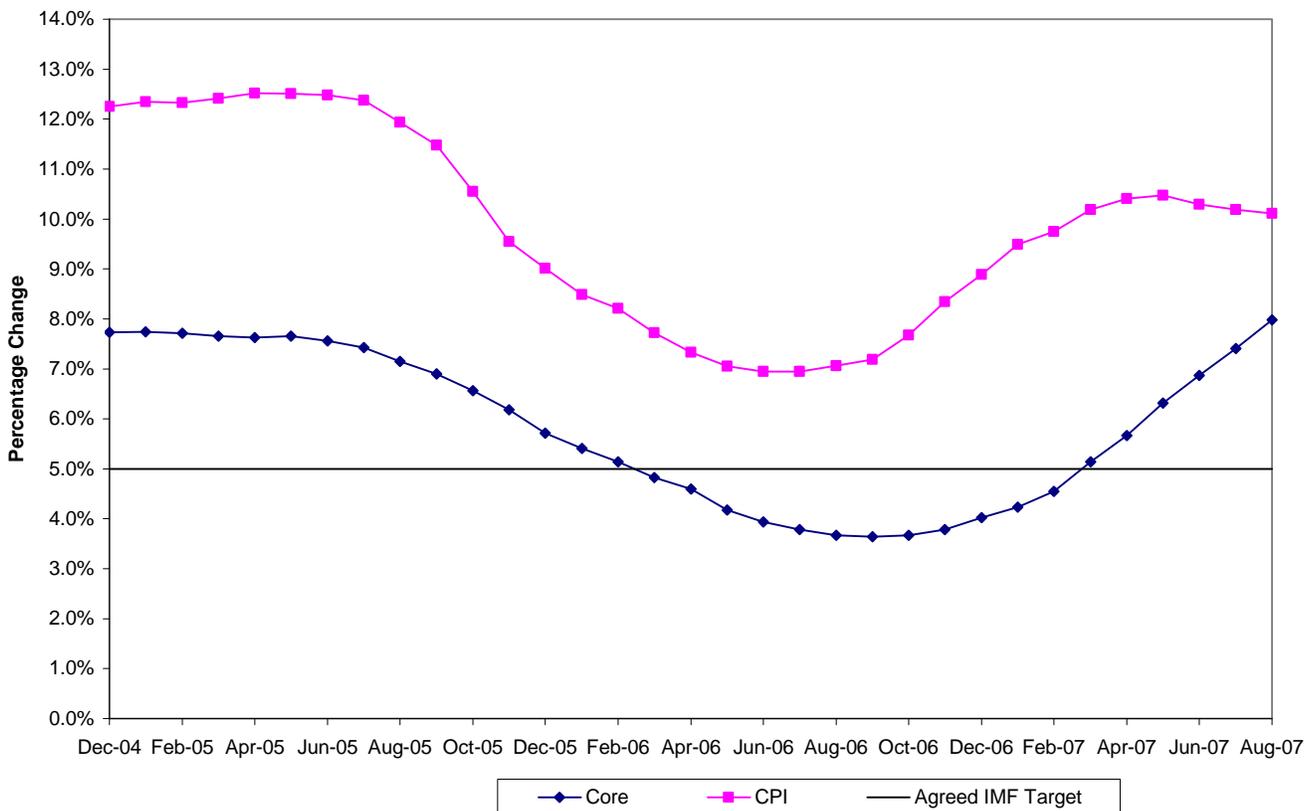
The chart below records the annual change in the CPI and thus shows that price levels in August 2007 compared to August 2006 are **8.35%** higher. This rate is a rise from the **8.22%** in July 2007 and it is, like the monthly change, the next step of an upward trend in annual changes rates since June.



**CPI and Core Inflation (Annual Average Percentage Change)**

In August 2007 the average index of the last twelve months (September 2006 to August 2007) increased by 10.1% compared to the average index of the previous twelve months (September 2005 to August 2006).

**CPI and Core Inflation (Annual Average Percentage Change)**



The annual average **CPI** has risen to 10.1% in August, however the rate of increase has been falling for the past four months. Driving this rise has been the increase in the price index for 'food and non-alcoholic beverages', which contributed 4.60% to the overall annual average CPI. Disaggregating further the increase can be attributed to the price of vegetables, which contributed 3.02%, a slight decrease from last month's 3.23%. This rate has been going down since May.

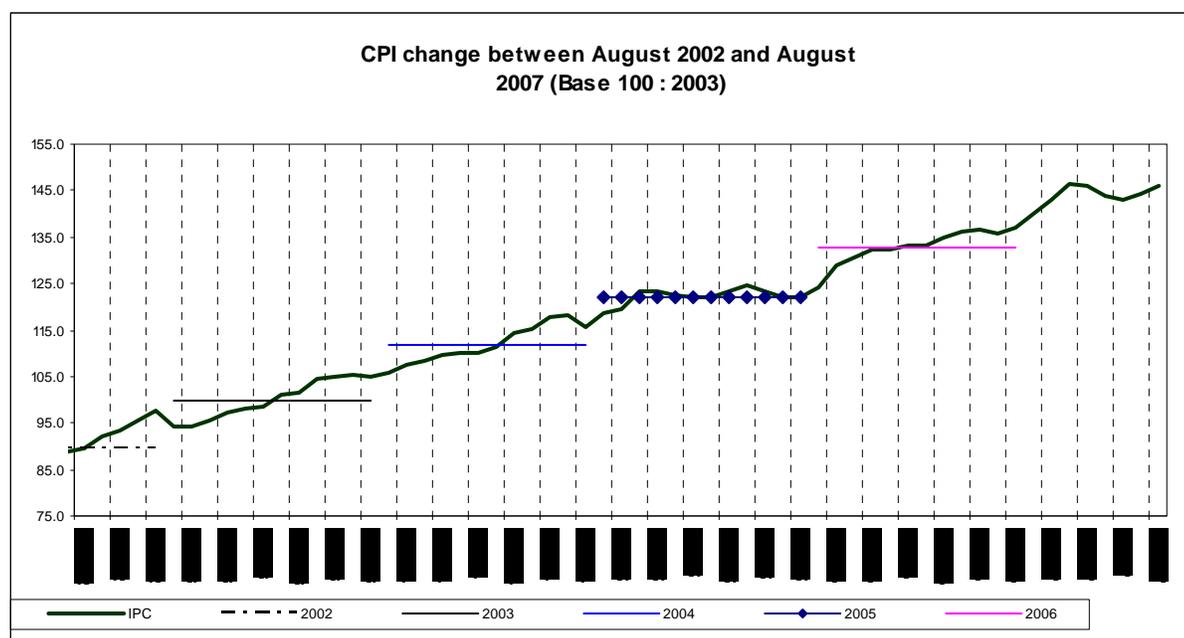
'Housing, water, gas and other fuels' has been another significant factor increasing annual average **CPI** and **core inflation**. The rise associated with 'housing, water, gas and other fuels' contributed 2.96% to the overall CPI and has been sourced to: rising rents in Kigali; a water tariff increase in January 2007; the continuing effect of the rise of the electricity tariff in December 2005 (not included in core); and the rise in price of charcoal due to governmental environmental policy attempting to prevent deforestation (not included in core).

The table below shows the evolution of these indicators over time. On a monthly basis the annual average inflation rate fell by 0.1 percentage point for the second time in a row while the core increased by 0.6 percentage points.

### Evolution (over 12 months) of the rate of inflation (%)<sup>(1)</sup>

MONTH	Aug. 06	Sept. 06	Oct. 06	Nov. 06	Dec. 06	Jan. 07	Feb. 07	Mar. 07	Apr. 07	May 07	Jun. 07	Jul. 07	Aug. 07
CPI	7.1	7.2	7.7	8.3	8.9	9.5	9.8	10.2	10.4	10.5	10.3	10.2	10.1
Core / Underlying	3.7	3.6	3.7	3.8	4.0	4.2	4.5	5.1	5.7	6.3	6.9	7.4	8.0

(1) In August 2007 the average index of the last twelve months (September 2006 to August 2007) increased by 10.1% compared to the average index of the previous twelve months (September 2005 to August 2006).



The figure above shows the time series of the general price index with horizontal lines identifying annual averages.

The next table shows a summary of the average annual indices and inflation rates over the past three years:

## Annual Average Indices and Annual Average Inflation Rates Over the Past 3 Years

Year	2004	2005	2006
General Index Excluding Fresh Products and Energy	107.6	113.7	118.3
Imported Products Index	110.9	119.2	122.5
CPI	112.0	122.1	132.9
Core inflation	7.7%	5.7%	4.0%
Imported inflation	10.9%	7.4%	2.8%
General inflation	12.3%	9.0%	8.9%

The following two tables contain time series data:

### Underlying Inflation

	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06
General index excluding fresh products and energy	114.3	114.6	114.2	114.0	114.1	116.0	116.6	117.1	117.6	117.5	118.0	118.2
Monthly change (in %)	0.40	0.19	-0.28	-0.20	0.04	1.74	0.46	0.43	0.47	-0.10	0.41	0.20
Annual underlying inflation rate (in %) <sup>(4)</sup>	7.2	6.9	6.6	6.2	5.7	5.4	5.1	4.8	4.6	4.2	3.9	3.8

	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07
General index excluding fresh products and energy	118.4	119.8	119.6	119.9	120.5	123.2	125.4	129.4	129.5	129.5	129.8	130.4
Monthly change (in %)	0.16	1.15	-0.14	0.21	0.56	2.25	1.72	3.22	0.10	-0.04	0.25	0.46
Annual underlying inflation rate (in %) <sup>(4)</sup>	3.7	3.6	3.7	3.8	4.0	4.2	4.5	5.1	5.7	6.3	6.9	7.4

	Aug-07
General index excluding fresh products and energy	130.9
Monthly change (in %)	0.40
Annual underlying inflation rate (in %) <sup>(4)</sup>	8.0

<sup>(4)</sup>In August 2007 the average index of the last twelve months (September 2006 to August 2007) increased by **8.0%** compared to the average index of the previous twelve months (September 2005 to August 2006)

### Imported Inflation

	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06
Imported products index	119.8	120.5	119.2	118.6	118.7	118.8	119.3	120.8	122.0	123.1	123.4	123.7
Monthly change (in %)	0.58	0.53	-1.02	-0.56	0.08	0.09	0.39	1.27	0.98	0.95	0.25	0.27
Annual imported inflation rate (in %) <sup>(5)</sup>	-	-	-	-	7.4	6.6	5.8	5.2	4.6	3.9	3.3	3.0

	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07
Imported products index	124.1	123.9	123.2	123.9	124.1	124.9	125.7045	124.928	123.3167	123.3	122.7	123.4
Monthly change (in %)	0.29	-0.18	-0.54	0.57	0.13	0.65	0.65	-0.62	-1.29	0.00	-0.50	+0.61
Annual imported inflation rate (in %) <sup>(5)</sup>	2.8	2.5	2.4	2.6	2.8	3.2	3.5	3.6	3.5	3.4	3.1	2.7

	Aug-07
Imported products index	124.3
Monthly change	0.67
Annual imported inflation rate (in %) <sup>(5)</sup>	2.4

<sup>(5)</sup>In August 2007 the average index of the last twelve months (September 2006 to August 2007) increased by **2.4%** compared to the average index of the previous twelve months (September 2005 to August 2006)

### METHODOLOGICAL NOTICE

The Consumer Price Index is a Laspeyres index that covers household consumption as it is used by national accounts. The reference population for the CPI consists of all households living in urban areas in Rwanda.

The housewife basket includes 438 products observed in many places spread all over the administrative centers of all provinces in Rwanda. All kinds of places of observation are selected: shops, markets, services, etc. More than 25,000 prices are collected every month by enumerators of the National Institute of Statistics of Rwanda and of the National Bank of Rwanda.

The base year for the CPI is the year 2003.

The weights used for this new index are the result of the Household Living Conditions Survey (EICV) conducted in 2000-2001 with a sample of 6,450 households.

The splicing with the old index is feasible using the splicing coefficient of 3.889. If you divide the old index by this coefficient, you will be able to make comparisons with the new index based in 2003.

Additional methodological documentation can be obtained at the National Institute of Statistics of Rwanda, Economic Statistics Department.

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