

# National Statistics Bureau

## QUARTERLY CONSUMER PRICE INDEX

### BULLETIN



## NATIONAL ACCOUNTS AND PRICE DIVISION

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## **FOREWORD:**

The Consumer Price Index (CPI) measures the changes over time in the average retail price of a fixed basket of consumer commodities and services generally purchased by households for personal consumption. The year – on – year rate of change of the CPI is widely used as an indicator to measure the changes in prices.

The current bulletin is based on the re-based price i.e. 3<sup>rd</sup> Qtr. 2003. However, during the 3<sup>rd</sup> Qtr. 2003 and 1<sup>st</sup> Qtr. 2004, year- on-year rate of change of the CPI could not be calculated. Comparisons cannot be made because there was no quarterly index produced for 3<sup>rd</sup> quarter of the previous year.

The half yearly bulletins published in the previous years are considered as: 1<sup>st</sup> half as 2<sup>nd</sup> quarter and 2<sup>nd</sup> half as 4<sup>th</sup> quarter.



## **Year on Year Inflation**

The Consumer Price Index continued to surge upwards as the overall CPI jumped by 5.94 percent this quarter, following a 6.17 percent increase in the same quarter last year. The consumer prices were augmented by both food items and non-food items. By special groupings, food items increased by 9.50 percent and Non-food items amplified by 4.31 percent this quarter.

Most of the increase in average price levels was attributed to increase in the Food and Non-Alcoholic beverages (+9.54%). Another factor was a 9.49 % increase in the prices of Clothing and Footwear.

A drop in prices for Transport (-0.93) exerted downward pressure on average prices. The downturn was largely due to declining in fuel prices.

The rise in meat price (+18.79 %), Milk, Cheese and Egg (+12.43 %) and Fruits (+29.75 %) accounted for most of the increase in Food Items.

## **Quarter to Quarter Inflation**

On a quarterly basis, the all-items index increased by 4.38 % between 1<sup>st</sup> quarter and 2<sup>nd</sup> quarter 2007 after rising 0.49 % between 1<sup>st</sup> quarter, 2007 and 4<sup>th</sup> quarter, 2006. This is the first huge increase in the all-items index since 2<sup>nd</sup> quarter, 2006. The increase was largely due to rise in Food and Non-Alcoholic beverages (+7.94 %), Alcoholic Beverages, Tobacco and Narcotics (+7.41 %) and Equipment and Routine Household (+6.42 %).

The growth between quarter to quarter was partly offset by the downward trend in prices for Health (-1.69 %), Transport (-0.88 %), Communication (-0.91 %) and Restaurant (-0.26 %).

Transport prices were wilted by drop in Fuel prices. The Fuel prices drop by 2.01 % during this period, the highest decline since 4<sup>th</sup> quarter 2004. In contrast, fuel prices were one of the main contributor to the increase in the CPI between 2<sup>nd</sup> quarter and 1<sup>st</sup> quarter in 2006, when they rose 5.04 %.

## **General**

The Second quarter's report reflects the volatility of the Food and Non-Alcoholic Beverages component and Clothing and Footwear component. But with possible mild firming of the Clothing and Footwear component and with probable decline in the prices of seasonal items, we should see little lower inflation in the next quarter. Markets will likely continue without any significant reaction to the overall increase in prices.

## **PURCHASING POWER OF NGULTRUM (PPN):**

The PPN as measured by CPI is recorded at 81 Chheltrum as of 2<sup>nd</sup> Qtr 2007. This indicates that 100 Ngultrum of 2<sup>nd</sup> Qtr 2007 is worth only 81 Ngultrum of 3<sup>rd</sup> Qtr 2003.

TABLE 1. CONSUMER PRICE INDEXES - FOOD AND NON FOOD COMPONENTS, BHUTAN JUNE 2002 TO 2nd Qtr.2007.

3rd Qtr. 2003=100																							
ITEM	WEIGHT	2002			2003			2004			2005			2006			2007						
		JUNE	DEC	JUNE	JUNE	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.		
INDEX																							
FOOD	31.67	98.37	99.91	99.78	100.00	101.40	101.86	101.07	102.85	104.17	108.02	107.37	108.69	109.4	110.32	114.63	115.03	115.12	116.32	125.52			
NON - FOOD	68.33	95.46	96.99	97.37	100.00	102.31	104.73	104.74	105.34	106.87	110.03	110.11	111.03	112.1	113.97	116.61	116.80	118.07	118.35	121.62			
TOTAL	100	97.01	98.70	98.80	100.00	102.02	103.82	103.58	104.55	106.01	109.39	109.24	110.29	111.24	112.81	115.98	116.24	117.14	117.71	122.87			
PERCENTAGE CHANGE YEAR ON YEAR																							
FOOD	31.67	2.30	1.99	1.44	0.00	1.49	0.00	1.29	2.85	2.73	6.05	6.23	5.68	5.02	2.13	6.76	5.83	5.23	5.44	9.50			
NON - FOOD	68.33	3.71	2.75	2.00	0.00	5.49	0.00	7.57	5.34	4.46	5.06	5.13	5.40	4.89	3.58	5.90	5.20	5.33	3.84	4.31			
TOTAL	100	2.68	2.28	1.84	0.00	3.36	0.00	4.84	4.55	3.91	5.37	5.46	5.49	4.93	3.13	6.17	5.39	5.30	4.34	5.92			
PERCENTAGE CHANGE QUARTER TO QUARTER																							
FOOD	31.67	0.42	1.56	-0.13	0.22	1.40	0.45	-0.78	1.76	1.28	3.70	-0.60	1.23	0.65	0.84	3.91	0.35	0.08	1.04	7.91			
NON - FOOD	68.33	1.21	1.22	0.39	2.70	2.31	2.37	0.01	0.57	1.45	2.96	0.07	0.84	0.96	1.67	2.32	0.16	1.09	0.24	2.72			
TOTAL	100	0.52	1.75	0.09	1.22	2.02	1.76	-0.23	0.94	1.40	3.19	-0.14	0.96	0.86	1.41	2.81	0.22	0.77	0.49	4.32			
PURCHASING POWER OF NGULTRUM (PPN)																							
PPN	1.00	1.03	1.01	1.01	1.00	0.98	0.96	0.97	0.96	0.94	0.91	0.92	0.91	0.90	0.89	0.86	0.86	0.85	0.85	0.81			

TABLE 2. CONSUMER PRICE INDEXES - MAJOR COMPONENTS, BHUTAN JUNE 2002 TO 2nd Qtr. 2007.

ITEM	WEIGHT	2002				2003				2004				2005				2006				2007	
		T	JUNE	DEC	JUNE	T	JUNE	DEC	JUNE	T	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	T	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.		
3rd Qtr. 2003=100																							
FOOD AND NON - ALCOHOLIC BEVERA	29.44	98.61	100.16	100.45	100.00	101.42	101.95	101.13	102.91	104.15	107.66	106.99	108.41	108.88	109.81	114.13	114.46	114.49	115.82	125.02			
ALCOHOLIC BEVERAGES, TOBACCO & NARCOTICS	2.23	95.02	96.40	90.31	100.00	101.12	100.62	100.22	102.02	104.44	112.78	112.38	112.43	116.27	116.97	121.18	122.48	123.46	122.94	132.05			
CLOTHING AND FOOTWEAR	10.49	96.91	98.09	98.38	100.00	104.91	104.54	103.48	105.23	107.65	106.05	109.29	110.30	112.52	113.03	116.93	117.09	118.47	121.25	128.03			
HOUSING, WATER, ELECTRICITY, GAS & OTHER FUELS	25.68	0.00	0.00	0.00	100.00	100.80	107.39	107.43	107.29	107.76	117.38	117.35	117.68	117.91	120.76	123.09	123.60	124.32	124.24	128.89			
EQUIPMENT & ROUTINE HOUSEHOLD MAINTENANCE	5.68	91.20	96.79	97.49	100.00	103.35	104.15	103.59	103.56	105.99	107.36	106.43	107.18	107.24	109.81	112.57	111.68	115.17	115.14	122.53			
HEALTH	2.94	90.08	90.07	89.92	100.00	100.40	102.30	100.26	101.43	106.37	106.74	106.03	106.40	106.40	108.90	109.59	110.18	113.44	113.64	111.72			
TRANSPORT	7.06	0.00	0.00	0.00	100.00	107.04	107.17	106.68	110.74	109.67	108.78	111.87	115.62	117.31	118.43	120.97	121.16	121.14	120.91	119.84			
COMMUNICATION	4.10	0.00	0.00	0.00	100.00	100.63	100.82	100.10	98.25	100.00	98.78	89.76	87.59	87.59	89.81	93.33	92.68	96.48	96.51	96.34			
RECREATION AND CULTURE	2.62	0.00	0.00	0.00	100.00	104.44	99.57	103.12	103.97	105.21	103.93	99.65	104.65	104.65	105.57	111.71	112.02	114.76	114.84	113.80			
EDUCATION	4.04	0.00	0.00	0.00	100.00	100.00	99.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00			
RESTAURANTS AND HOTELS	3.01	0.00	0.00	0.00	100.00	99.35	99.34	101.09	106.60	114.76	107.12	108.85	111.13	115.17	116.00	116.29	116.98	117.84	117.22	116.91			
MISCELLANEOUS GOODS & SERVICES	2.72	98.71	98.86	100.11	100.00	101.37	101.69	106.01	99.87	104.07	109.41	109.62	109.91	117.01	119.08	123.77	123.82	123.52	121.63	125.25			
TOTAL	100.00	97.011	98.704	98.795	100.000	102.02	103.82	103.58	104.55	106.01	109.39	109.24	110.29	111.24	112.81	115.98	116.24	117.14	117.71	122.87			

NOTE: From 2003 June and backwards, the HEALTH component is inclusive of Transport, Communication, Recreation & Culture, Education Restaurants and hotels. Therefore the weights may be aggregated at 23.77, if indexes needs to be backtracked.

TABLE 3. CONSUMER PRICE INDEXES - MAJOR COMPONENTS, BHUTAN JUNE 2002 TO 2nd Qtr.2007.

ITEM	2002		2003				2004				2005				2006				2007	
	WEIGH	T	JUNE	DEC	JUNE	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.			
3rd Qtr. 2003=100																				
FOOD AND NON - ALCOHOLIC BEVERAGES	29.44	2.34	2.15	1.87	0.00	1.26	0.00	0.68	2.91	2.69	5.60	5.79	5.34	4.54	2.00	6.67	5.58	5.15	5.47	9.54
ALCOHOLIC BEVERAGES, TOBACCO & NARCOTICS	2.23	1.82	-0.30	-4.96	0.00	4.90	0.00	10.98	2.02	3.28	12.09	12.13	10.20	11.33	3.72	7.83	8.94	6.18	5.10	8.97
CLOTHING AND FOOTWEAR	10.49	3.67	2.45	1.52	0.00	6.95	0.00	5.18	5.23	2.61	1.44	5.61	4.82	4.52	6.58	6.99	6.16	5.29	7.27	9.49
HOUSING, WATER, ELECTRICITY, GAS & OTHER FUELS	25.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	6.90	9.30	9.23	9.68	9.42	2.88	4.89	5.03	5.44	2.88	4.71
EQUIPMENT & ROUTINE HOUSEHOLD MAINTENANCE	5.68	5.07	4.37	6.90	0.00	6.78	0.00	6.26	3.56	2.55	3.08	2.74	3.50	1.18	2.28	5.77	4.20	7.39	4.85	8.65
HEALTH	2.94	4.19	0.35	-0.18	0.00	11.47	0.00	11.50	1.43	5.95	4.34	5.76	4.90	0.03	2.02	3.36	3.55	6.62	4.35	1.94
TRANSPORT	7.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.74	2.46	1.50	4.87	4.41	6.97	8.87	8.13	4.79	3.26	2.09	-0.93
COMMUNICATION	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.75	-0.63	-2.02	-10.33	-10.85	-12.41	-9.08	3.98	5.81	10.15	7.46	3.23
RECREATION AND CULTURE	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.97	0.74	4.38	-3.37	0.65	-0.53	1.58	12.10	7.04	9.66	8.78	1.87
EDUCATION	4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESTAURANTS AND HOTELS	3.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.60	15.51	7.83	7.68	4.25	0.36	8.29	6.84	5.26	2.32	1.05	0.53
MISCELLANEOUS GOODS & SERVICES	2.72	2.26	-0.52	1.41	0.00	2.54	0.00	0.00	-0.13	2.66	7.59	3.41	10.05	12.43	8.84	12.91	12.66	5.56	2.14	1.20
TOTAL	100.00	2.68	2.28	1.84	0.00	3.36	0.00	0.00	4.55	3.91	5.37	5.46	5.49	4.93	3.13	6.17	5.39	5.30	4.34	5.94





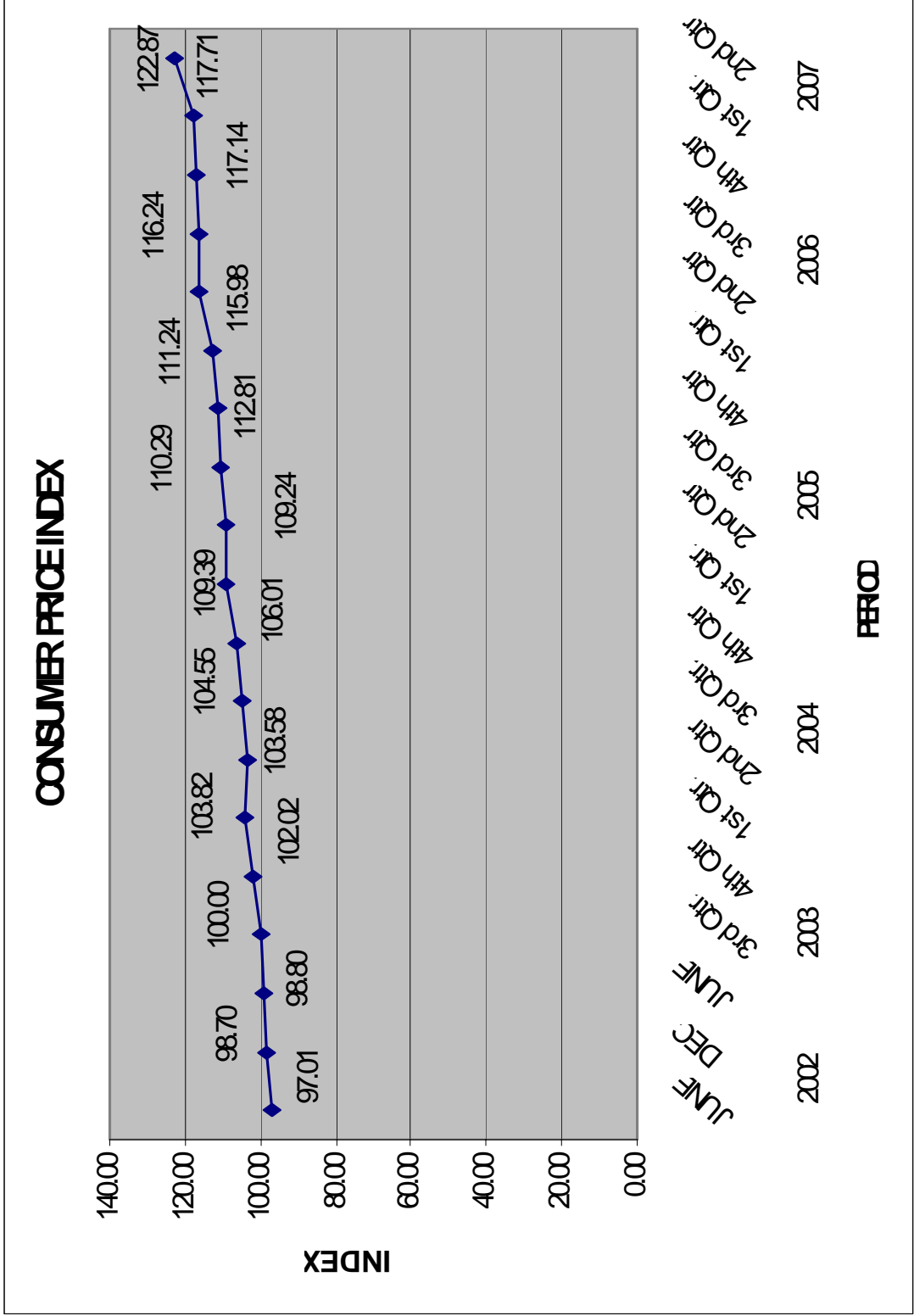
TABLE 6. CONSUMER PRICE INDEXES - SUB - COMPONENTS, BHUTAN JUNE 2002 TO 2nd Qtr.2007.

ITEM	2002		2003			2004			2005				2006				2007			
	WEIGH T		June	Dec	June	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.			
	27.69	0.56	1.62	0.29	-0.47	1.42	0.51	-0.73	1.85	1.14	3.45	-0.78	1.40	0.42	0.86	4.12	0.27	-0.01	1.18	8.39
FOOD																				
BREAD AND CEREALS (ND)	7.93	-0.09	1.41	0.14	-2.50	2.28	-0.92	-0.19	1.23	0.85	2.93	-0.38	0.11	1.04	0.85	1.89	0.19	0.22	4.11	17.05
MEAT	3.27	2.67	1.76	1.14	0.06	0.92	0.13	-0.02	1.88	0.96	-2.33	-1.07	4.27	0.61	1.58	0.50	0.37	0.55	17.05	17.05
FISH	1.03	0.00	0.00	0.00	0.00	1.05	0.41	0.66	-1.71	1.63	3.17	-3.69	0.83	2.43	1.19	0.37	0.70	0.58	-0.19	2.04
MILK, CHEESE AND EGGS	5.16	0.21	0.02	0.03	0.84	1.25	-0.82	0.16	0.42	2.31	2.11	1.46	0.10	0.19	0.66	6.67	0.89	2.33	1.03	7.79
OILS AND FATS	3.41	1.44	1.33	2.46	-0.31	2.45	-0.73	-0.07	1.40	1.00	-1.26	-1.55	2.32	0.83	1.00	0.33	0.27	0.22	0.35	2.80
FRUITS	1.35	39.96	-15.36	-4.33	6.76	0.78	10.73	-9.84	2.23	5.35	26.87	-11.43	-10.37	0.17	17.13	2.80	-10.82	0.38	25.49	15.49
VEGETABLES	4.12	1.28	9.30	-1.53	8.69	-0.38	3.46	-3.03	7.84	-1.53	5.92	0.76	7.04	-0.07	-4.75	13.62	0.02	-3.80	-2.66	15.93
SUGAR, JAM AND ETC.	0.56	-0.11	4.24	-2.67	5.29	1.50	-0.96	-1.23	2.07	0.37	6.78	3.80	0.29	0.31	0.33	8.51	1.90	0.21	-2.43	0.80
FOOD PRODUCTS n.e.c (ND)	0.87	-0.28	0.00	0.66	-0.17	2.44	-0.60	9.17	-6.15	4.74	4.73	0.31	0.97	2.92	1.39	2.66	1.05	1.04	1.07	-0.26
NON- ALCOHOLIC BEVERAGES	1.74	0.79	-0.04	0.57	0.09	1.39	0.78	-2.10	0.37	2.39	1.88	1.98	0.12	0.57	0.86	0.86	0.52	0.70	0.91	0.44
ALCOHOLIC BEVERAGES (including me	1.22	-2.31	1.42	0.00	7.35	0.00	-0.21	-1.09	4.12	0.20	4.34	-0.16	0.01	0.17	0.79	3.14	1.85	0.91	-0.48	10.57
TOBACCO	0.33	-1.20	1.48	-11.99	14.19	4.17	-2.63	1.90	-1.79	9.89	35.17	0.88	0.00	12.91	0.55	0.72	0.59	0.32	-0.71	5.99
NARCOTICS(ND)	0.69	0.00	0.00	0.00	0.00	1.66	0.16	-0.27	-0.51	2.71	0.63	-1.57	0.13	2.81	0.31	6.63	0.05	0.94	-0.10	2.82
CLOTHING	7.87	1.21	1.22	0.30	1.64	5.02	-0.36	-1.16	1.53	2.92	-1.73	2.57	0.68	2.45	0.34	4.41	0.09	0.70	3.02	2.30
ACTUAL RENTALS FOR HOUSING	18.77	0.00	0.00	0.00	0.00	1.05	8.98	-0.41	-0.11	0.14	9.05	0.00	0.31	0.15	2.25	2.34	0.60	0.66	-0.12	3.44
ELECTRICITY, GAS AND OTHER FUELS	6.04	2.21	6.34	1.67	10.83	0.11	-0.27	1.66	-0.42	1.40	8.41	0.31	0.01	0.37	2.87	0.78	0.22	0.27	0.07	5.24
FUELS AND LUBRICANTS	3.20	0.00	0.00	0.00	0.00	0.90	0.57	-0.67	0.33	1.22	0.99	4.04	1.27	0.34	1.28	5.04	0.21	-0.22	-0.09	-2.01
EDUCATION	4.04	0.00	0.00	0.00	0.00	0.00	-0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERSONAL CARE	2.72	0.00	0.00	0.00	0.00	1.37	0.32	4.25	-5.79	4.21	5.13	0.19	0.26	6.46	1.77	3.94	0.04	-0.24	-1.53	2.98
TOTAL	100.00	0.52	1.75	0.09	1.22	2.02	1.76	-0.23	0.94	1.40	3.19	-0.14	0.96	0.86	1.41	2.81	0.22	0.77	0.49	4.38

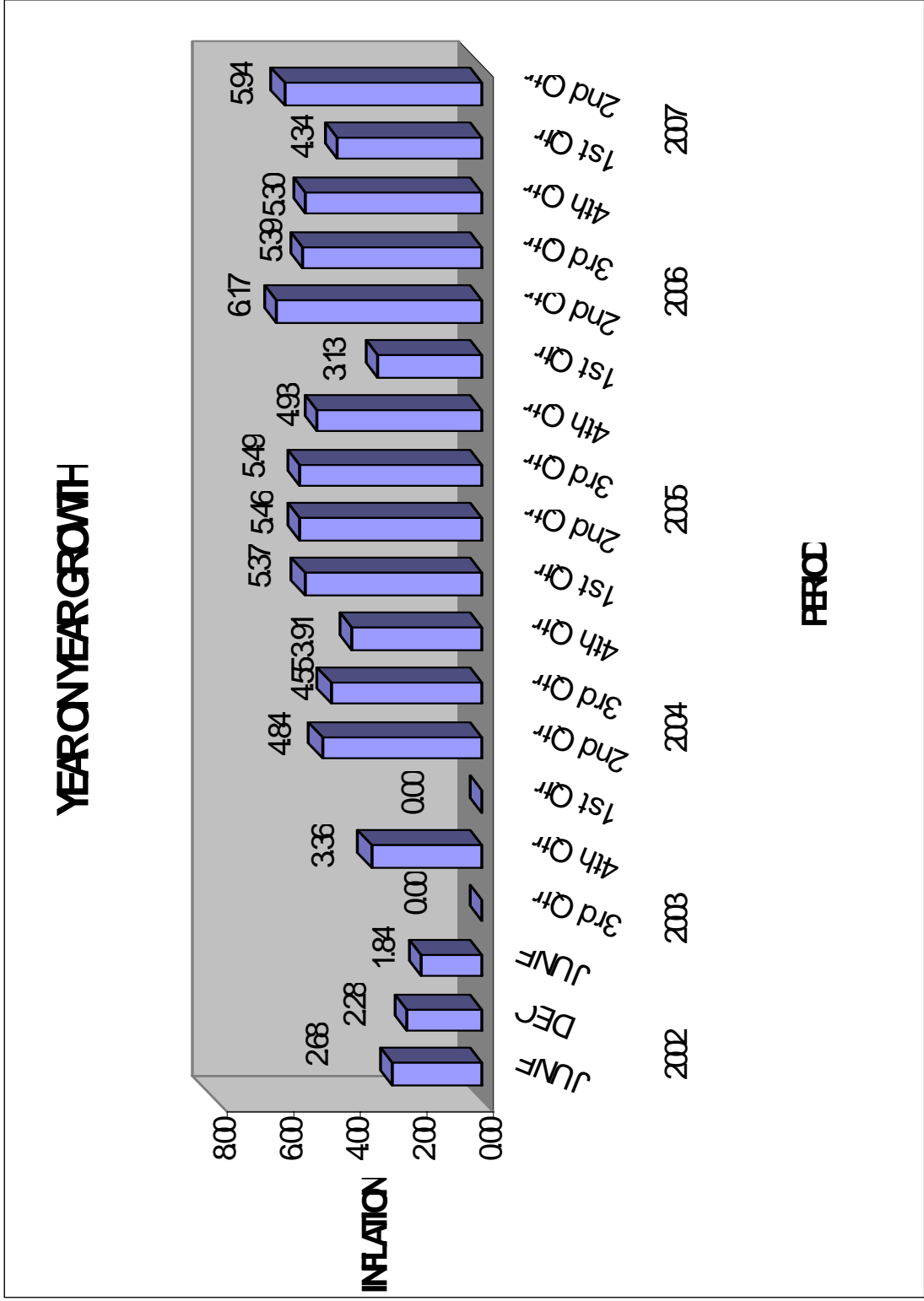
TABLE 7. CONSUMER PRICE INDEXES - SUB - COMPONENTS, BHUTAN JUNE 2002 TO 2nd Qtr.2007.

ITEM	WEIGHT	YEAR ON YEAR GROWTH RATE:																		
		2002		2003			2004			2005			2006			2007				
		June	Dec	June	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.				
FOOD	27.69	2.36	2.19	1.91	0.00	1.24	0.00	0.73	3.07	2.78	5.79	5.73	5.27	4.53	1.91	6.94	5.75	5.30	5.62	9.95
BREAD AND CEREALS (ND)	7.93	0.98	1.32	1.55	0.00	-0.14	0.00	-1.38	2.39	0.96	4.88	4.69	3.54	2.81	0.91	2.15	3.96	4.01	3.17	6.51
MEAT	3.27	4.09	4.48	2.93	0.00	2.13	0.00	1.09	2.93	2.97	0.45	-0.61	1.72	1.37	5.42	7.10	3.29	3.04	2.00	18.79
FISH	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.96	3.74	-0.74	1.82	2.62	0.66	4.89	4.75	2.87	1.46	3.15
MILK, CHEESE AND EGGS	5.16	-0.41	0.23	0.05	0.00	2.13	0.00	1.42	1.00	2.05	5.07	6.43	6.10	3.90	2.43	7.69	8.54	10.86	11.26	12.43
OILS AND FATS	3.41	2.83	2.79	3.82	0.00	4.64	0.00	1.32	3.05	1.59	1.05	-0.44	0.47	0.30	2.59	4.55	2.45	1.83	1.18	3.67
FRUITS	1.35	13.96	18.46	-19.02	0.00	2.93	0.00	7.41	2.85	7.51	23.18	21.01	6.11	0.90	-6.85	8.11	7.57	7.79	15.49	29.75
VEGETABLES	4.12	11.81	10.70	7.63	0.00	6.63	0.00	8.64	7.79	6.54	9.07	13.34	12.50	14.16	2.67	15.77	8.16	4.13	6.41	8.58
SUGAR, JAM AND ETC.	0.56	-0.88	4.13	1.46	0.00	4.02	0.00	4.54	1.35	0.23	8.06	13.57	11.58	11.51	4.77	9.52	11.27	11.16	8.11	0.44
FOOD PRODUCTS n.e.c (ND)	0.87	3.52	-0.28	0.66	0.00	2.94	0.00	10.98	4.33	6.68	12.39	3.27	11.11	9.18	5.70	8.17	8.26	6.28	5.94	2.93
NON - ALCOHOLIC BEVERAGES	1.74	1.71	0.76	0.54	0.00	2.07	0.00	0.12	0.40	1.39	2.50	6.77	6.50	4.61	3.56	2.43	2.83	2.97	3.02	2.60
ALCOHOLIC BEVERAGES	1.22	0.72	-0.92	1.42	0.00	7.35	0.00	5.96	2.77	2.98	7.68	8.69	4.40	4.36	0.81	4.14	6.06	6.85	5.50	13.10
TOBACCO	0.33	2.83	0.26	-10.69	0.00	4.69	0.00	17.77	1.29	6.85	48.65	47.17	49.86	53.98	14.54	14.36	15.03	2.21	0.92	6.20
NARCOTICS(ND)	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	2.08	2.55	1.21	1.86	1.96	1.64	10.11	10.03	8.03	7.59	3.75
CLOTHING	7.87	3.67	2.45	1.52	0.00	7.06	0.00	5.13	5.01	2.91	1.50	5.33	4.45	3.97	6.16	8.06	7.43	5.60	8.42	6.23
ACTUAL RENTALS FOR HOUSING	18.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.55	8.56	8.64	9.08	9.54	9.55	2.72	5.12	5.43	5.97	3.52	4.63
ELECTRICITY, GAS AND OTHER FUELS	6.04	3.56	8.69	8.12	0.00	12.80	0.00	12.49	1.07	2.37	11.28	9.79	10.27	9.15	3.57	4.06	4.29	4.18	1.35	5.83
FUELS AND LUBRICANTS	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13	1.45	1.86	6.70	7.70	6.77	7.08	8.11	6.97	6.37	4.92	-2.12
EDUCATION	4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERSONAL CARE	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.13	2.66	7.59	3.41	10.05	12.43	8.84	12.91	12.66	5.56	2.14	1.20
TOTAL	100	2.68	2.28	1.84	0.00	3.36	0.00	4.84	4.55	3.91	5.37	5.46	5.49	4.93	3.13	6.17	5.39	5.30	4.34	5.94

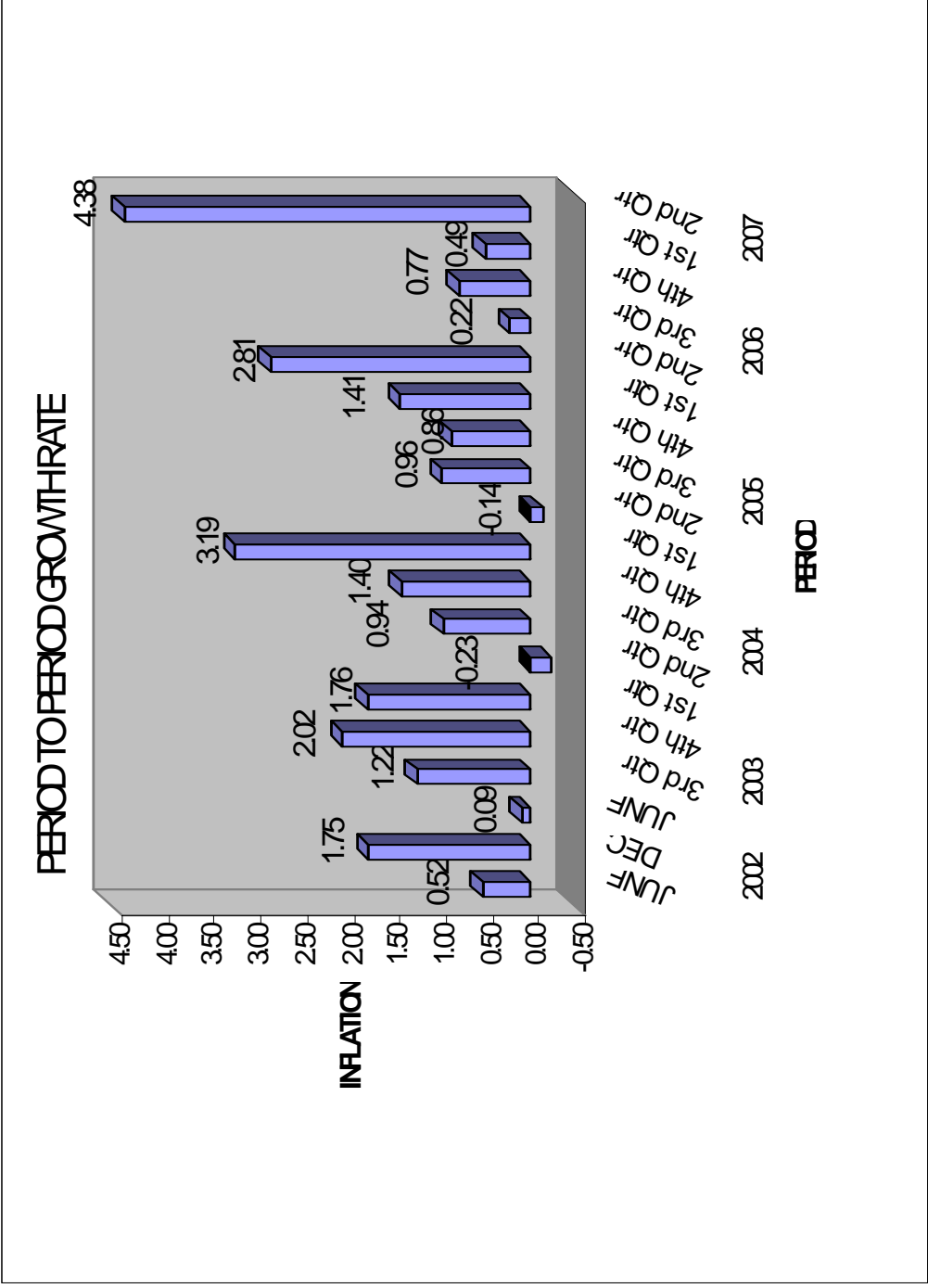
**GRAPH 1: CHANGE IN INDEX POINTS.**



GRAPH 2: YEAR ON YEAR INFLATION RATE.



**GRAPH 3: PERIOD-TO-PERIOD GROWTH RATE.**



## **TECHNICAL NOTES**

### **AN OVERVIEW.**

The Consumer Price Index (CPI) is a single number used to measure changes in the average retail prices of a market basket or collection of goods and services commonly purchased by an average household in Bhutan. It shows how much, on the average, prices of goods and services have increased or decreased from a particular reference period known as base year. It has been produced in June and December each year since 1979. With the re-basing of base year from 1979 to 2003, henceforth the bulletin will be published on quarterly basis.

The CPI plays an important role in national policy making, both in the economic and in the social sphere. It is used for a wide variety of purposes. The CPI is the best and most widely used measure of the rate of inflation. It is the indicator of the performance of the economy and a basis for redirecting monetary and fiscal policies in a country. A popular function is the use of CPI for indexation of wages and social security allowances (the adjustment of workers' income in the form of wages and salaries, or as social security benefits (e.g. pensions). Besides these, CPI is used as a deflator to express value series in real terms, that is, measuring the change in actual volume of transaction by removing the effects of price changes.

### **BACKGROUND**

The National Statistical Bureau (NSB) CPI dates back to 1979. Two price index were produced and these are:

1. The main CPI for Bhutan.

This series was based on price collection undertaken in 17 towns throughout Bhutan in June and December each year since June 1979. The Price Indexes were calculated by first obtaining the average prices for each individual item across all towns. These averages were determined as weighted averages based on the estimated population of each town. These national average prices were then weighted together to form price indexes at the group level. Item weights were based on the importance of each item in the spending patterns of the population. Finally, indexes at the group level were weighted together to form total indexes using the weights that were likewise based on the importance of each group in the expenditure of the population. The weights used were based on information given in a Survey of Consumer Expenditure undertaken in 1979.

## 2. The quarterly Food price index of Thimphu.

This was initiated in July 1987 originally as a monthly series. But has been compiled as a quarterly series from the June quarter 1988. The index referred to the average price during the quarter and was based on the collection of prices for a number of food items from a selection of shops in Thimphu. Prices of fruits and vegetables were collected once a month from the fruit and vegetable market.

### **REBASING THE CPI.**

The CPI derives its usefulness in its representation of how much a typical market basket behaves over a specific time period. When the basket of the reference year no longer represents what household commonly purchases, the CPI becomes irrelevant and would tend to give wrong market signals.

Bhutan's CPI has 1979 as base year. Undoubtedly, substantial changes had taken place since then – economically, socially and technologically. A number of new products had likewise emerged. These factors contributed to the change in households' tastes and preferences thereby causing the fixed market basket of goods and services to become outmoded. To capture such changes for a more meaningful price comparison, it was necessary to re - base the CPI. This entailed the revision of or updating the base year, the weights, the fixed market basket and the sample outlets.

### **BASE PERIOD.**

The base period is the period, usually a year, at which the index number is set to 100 (but it could be any number: 1,000 or 1 or anything else). 100 is usually selected since it facilitates the calculation of percentage changes from the base to the current period.

The year 2003 was chosen as the base year since it was the year when the Bhutan Living Standard Survey was conducted. The Household Income Expenditure Survey or Living Standard Survey are the usual source of weights and the basis for drawing up the market basket.

### **WEIGHTS.**

The weights consider the relative importance of each index item in the total index. CPI

Weighting patterns, as well as the market basket, are typically constructed from data on household expenditure or living standard surveys. The present CPI weights are derived from the Bhutan Living Standard Survey (BLSS) 2003 of the National Statistical Bureau (NSB). The survey gathered, among others, income and expenditure data, which included the levels of consumption by item of expenditure up to the level necessary for the generation of CPI weights.

**MARKET BASKET.**

A market basket refers to a sample of goods and services that is used to represent all goods and services bought. In constructing the market basket, items are first combined into groups of similar commodities. The commodity groups selected for the CPI are:

1. Food and Non-Alcoholic Beverages.
2. Alcoholic Beverages, Tobacco and Narcotics.
3. Clothing and Footwear.
4. Housing, Water, Electricity, Gas and Other fuels.
5. Furnishing, Household equipment and Routine Household maintenance.
6. Health.
7. Transport.
8. Communication.
9. Recreation and Culture.
10. Education.
11. Restaurant and hotels.
12. Miscellaneous goods and services.

**SAMPLE OUTLETS.**

These are establishments or retail outlets where prices of commodities/services are collected or quoted. These include shops, footwear stores, tailoring shops, hotel bars, hairdressers, etc. Outlets are selected according to set of criteria that takes into account location, popularity of the establishment along the line of goods to be priced, consistency and completeness of stock and permanency of the outlet.

**PRICING PERIODS AND PROCEDURES.**

The accuracy of any statistics depends upon the reliability of the basic information collected. This is especially true for the CPI. While it is necessary to have reliable weighting systems and compilation methods, collecting the basic price information in an accurate and methodical fashion is equally important. Prices of all agricultural items, as these are more volatile, are collected monthly during the first Saturday of the month. Prices of all other items are gathered during the first week of the 2<sup>nd</sup> month of every quarter.

School fees and related charges are taken once a year, every beginning of the school year and accounts for the annual fees. The entry is carried out all through the succeeding quarters until the next school year.

CPI price collection is conducted by personal visit by our Statistical Officers in the Dzongkhags

## **SURVEY FORMS.**

The survey forms of retail prices of commodities and services are as follows:

1. Form CPI 1 = Agricultural products.
2. Form CPI 2 = Fresh fish and meat.
3. Form CPI 3 = Processed food and non – alcoholic beverages.
4. Form CPI 4 = Alcoholic beverages, cigarettes and non- food.
5. Form CPI 5 = Fuel, electricity, transportation, communication & school fees.
6. Form CPI 6 = Monthly rentals.

## **INDEX CONSTRUCTION.**

The average prices of a commodity from results of the price surveys are gathered. This is just the arithmetic mean (sum of all the prices taken divided by the number of quotations).

The price relative is computed for each of the specifications. The price relative is the simplest form of an index number. Price relative is current average price divided by base year average price multiplied by 100.

Index are computed at 4-digit group level as the simple average of the price relative belonging to that group.

The index for the 3-digit group is computed as the weighted average of the 4-digit group indexes belonging to that group. Like wise for 2-digit and 1-digit group, the similar formula is used.

The overall index is computed by getting the weighted average of the indexes of the 12 major group items.

The national index is the weighted average of all indexes of the 23 towns.

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