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# Royal Government of Bhutan National Statistics Bureau



# Consumer Price Index (CPI): January 2022

(Release date: 4<sup>th</sup> March, 2022)



The prices of consumer goods and services in January, 2022 went up by 6.03 percent from January of last year. Non-food prices recorded higher increase with 6.68 percent compared to food prices which increased by 5.27 percent for the same period. Non-food contributed to 57 percent of the overall increase as compared to 43 percent of the total contribution by food.

Among the 12 divisions, the highest contribution was from food and non-alcoholic beverages with 5.43 percent increase contributing to 41 percent of the overall inflation rate. It was followed by transport with 8.65 percent increase contributing to 21 percent of the total increase. Clothing and footwear, though recorded the highest increase in January with 10.45 percent, contributed to 15 percent of the overall increase.

Month-on-month inflation rate (December to January) increased by 0.66 percent with both food and non-food prices increasing over the previous month. Except for communication and education, all other divisions recorded an increase in the past one month.

#### **Annual inflation rate**



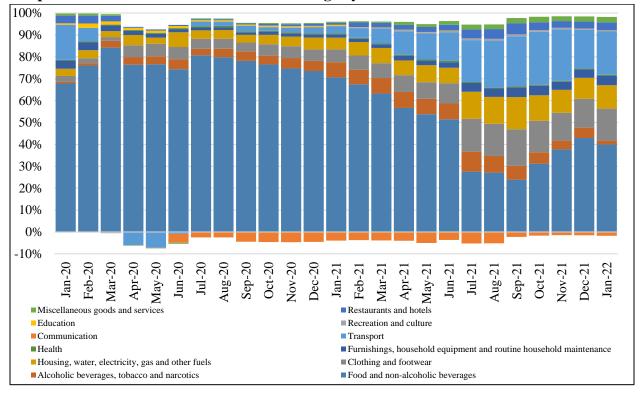
The prices of household goods and services increased by 7.35 percent from 2020 to 2021. This was an increase of 1.72 percentage point compared to 5.63 percent increase in 2020. The higher rate in 2021 was due to increase in the non-food by 5.62 percent compared to 1.24 percent increase in 2020.

Food prices contributed to about 60 percent of the overall inflation rate in 2021 and non-food contributing to 40 percent of the total increase. In 2020, food prices were the main driver of the inflation rate contributing to almost 90 percent of the total increase.

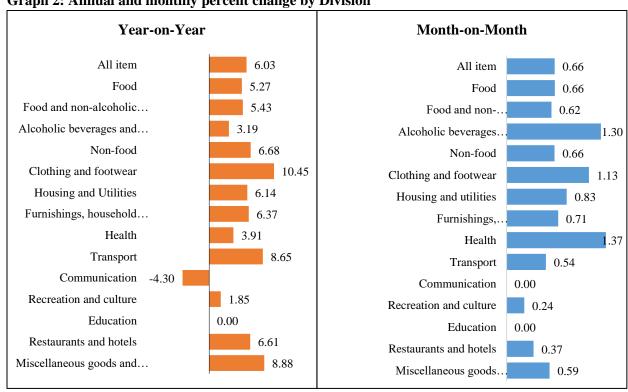
Among the 12 major division, food & alcoholic beverages contributed to more than 50 percent of the total increase in 2021, followed by transport with about 15 percent and clothing & footwear with about 11 percent contribution to the total increase.

Alcoholic beverages and betel nuts recorded the highest increase with 16.66 percent while education fees recorded the lowest increase with 0.66 percent in 2021. All other divisions recorded an increase except for communication which dropped by 9.90 percent.

Graph 1: Percent contribution to overall change by Division



Graph 2: Annual and monthly percent change by Division



**Table 1: Index (April 2019 = 100)** 

Division	Weight (%)	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
All item	100.00	113.38	113.68	115.66	116.76	116.98	117.76
Food	45.95	119.46	120.13	122.69	124.82	126.44	127.28
Food and non-alcoholic beverages	42.78	119.06	119.85	122.63	124.87	126.51	127.30
Alcoholic beverages and betel nuts	3.17	124.98	123.86	123.59	124.09	125.42	127.05
Non-food	54.05	108.47	108.48	110.00	110.32	109.50	110.23
Clothing and footwear	9.17	114.66	114.66	116.72	116.72	116.72	118.04
Housing and Utilities	11.57	110.17	110.49	110.88	111.00	110.98	111.90
Furnishings, household equipment							
and routine household maintenance	4.44	109.31	109.31	111.24	111.24	111.24	112.03
Health	0.81	108.69	108.69	109.30	109.30	109.30	110.80
Transport	15.63	110.34	110.14	113.05	114.08	111.21	111.81
Communication	3.25	83.66	83.66	83.65	83.65	83.65	83.65
Recreation and culture	2.30	102.47	102.47	102.91	102.91	102.91	103.16
Education	1.35	104.75	104.75	104.75	104.75	104.75	104.75
Restaurants and hotels	3.62	108.98	108.98	109.11	109.11	109.11	109.51
Miscellaneous goods and services	1.92	108.98	108.98	111.81	111.81	111.81	112.48

 Table 2: Year-on-year percent change

Division	Weight (%)	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
All item	100.00	5.30	4.97	6.47	7.26	6.87	6.03
Food	45.95	4.25	3.18	4.96	6.37	6.92	5.27
Food and non-alcoholic beverages	42.78	3.55	2.70	4.55	6.16	6.67	5.43
Alcoholic beverages and betel nuts	3.17	14.19	9.90	10.67	9.27	10.44	3.19
Non-food	54.05	6.20	6.52	7.78	8.02	6.82	6.68
Clothing and footwear	9.17	9.86	9.86	10.92	10.77	10.77	10.45
Housing and Utilities	11.57	6.61	6.93	7.09	7.17	6.20	6.14
Furnishings, household equipment and routine household maintenance	4.44	5.46	5.50	6.81	6.69	6.69	6.37
Health	0.81	3.07	3.07	3.46	3.46	3.46	3.91
Transport	15.63	8.72	8.08	11.17	12.21	8.69	8.65
Communication	3.25	-10.92	-4.47	-4.30	-4.30	-4.30	-4.30
Recreation and culture	2.30	2.18	2.18	2.46	2.36	2.36	1.85
Education	1.35	0.00	0.00	0.00	0.00	0.00	0.00
Restaurants and hotels	3.62	7.84	7.84	7.04	6.75	6.75	6.61
Miscellaneous goods and services	1.92	7.14	6.83	9.38	9.26	9.26	8.88

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**Table 3: Month-on-month percent change** 

Division	Weights (%)	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
All item	100.00	0.23	0.26	1.74	0.95	0.19	0.66
Food	45.95	-0.02	0.56	2.14	1.73	1.30	0.66
Food and non-alcoholic beverages	42.78	0.04	0.67	2.32	1.83	1.32	0.62
Alcoholic beverages and betel nuts	3.17	-0.72	-0.90	-0.22	0.41	1.07	1.30
Non-food	54.05	0.43	0.01	1.41	0.29	-0.74	0.66
Clothing and footwear	9.17	0.00	0.00	1.79	0.00	0.00	1.13
Housing and utilities	11.57	0.13	0.29	0.36	0.10	-0.02	0.83
Furnishings, household equipment and routine household maintenance	4.44	0.00	0.00	1.76	0.00	0.00	0.71
Health	0.81	0.00	0.00	0.56	0.00	0.00	1.37
Transport	15.63	1.22	-0.18	2.64	0.91	-2.52	0.54
Communication	3.25	0.00	0.00	-0.01	0.00	0.00	0.00
Recreation and culture	2.30	0.00	0.00	0.43	0.00	0.00	0.24
Education	1.35	0.00	0.00	0.00	0.00	0.00	0.00
Restaurants and hotels	3.62	0.74	0.00	0.11	0.00	0.00	0.37
Miscellaneous goods and services	1.92	0.10	0.00	2.60	0.00	0.00	0.59

Table 4: Annual Index (April 2019= 100)

Division	Weight (%)	2015	2016	2017	2018	2019	2020	2021
All item	100.00	87.65	90.47	94.95	97.54	100.20	105.84	113.62
Food	45.95	83.06	86.26	92.37	96.93	100.26	111.38	121.83
Food and non-alcoholic								
beverages	42.78	82.49	85.81	92.21	96.76	100.29	111.67	121.57
Alcoholic beverages and betel								
nuts	3.17	90.27	91.98	94.45	98.94	99.86	107.51	125.43
Non-food	54.05	90.84	93.39	96.72	97.95	100.15	101.39	107.09
Clothing and footwear	9.17	89.75	92.42	95.85	98.35	100.04	103.27	112.70
Housing and Utilities	11.57	87.91	90.74	96.37	97.73	100.20	102.52	108.94
Furnishings, household								
equipment and routine household								
maintenance	4.44	93.43	95.16	96.48	98.06	100.57	102.95	108.34
Health	0.81	94.23	94.98	95.97	97.85	100.33	103.76	108.26
Transport	15.63	92.81	96.28	98.11	97.42	100.07	100.59	108.03
Communication	3.25	99.65	99.70	99.71	99.79	100.02	94.27	84.93
Recreation and culture	2.30	98.60	98.02	99.18	99.60	99.93	100.04	102.29
Education	1.35	86.81	92.78	96.22	99.41	100.64	104.05	104.75
Restaurants and hotels	3.62	84.31	87.00	89.13	94.29	99.42	101.00	107.48
Miscellaneous goods and services	1.92	92.14	94.42	96.29	98.43	100.05	101.07	107.88

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**Table 5: Annual percent change** 

Division	Weight	Percent change						
Division	(%)	2015	2016	2017	2018	2019	2020	2021
All item	100.00	4.55	3.22	4.96	2.72	2.73	5.63	7.35
Food	45.95	3.22	3.86	7.09	4.93	3.44	11.09	9.38
Food and non-alcoholic beverages	42.78	3.27	4.02	7.46	4.94	3.64	11.35	8.86
Alcoholic beverages and betel nuts	3.17	2.54	1.90	2.68	4.75	0.94	7.66	16.66
Non-food	54.05	5.44	2.80	3.56	1.28	2.24	1.24	5.62
Clothing and footwear	9.17	4.32	2.97	3.71	2.61	1.72	3.23	9.13
Housing and Utilities	11.57	6.45	3.22	6.21	1.41	2.53	2.32	6.26
Furnishings, household equipment								
and routine household maintenance	4.44	3.20	1.85	1.39	1.63	2.56	2.37	5.23
Health	0.81	2.77	0.80	1.05	1.96	2.54	3.41	4.34
Transport	15.63	8.51	3.73	1.90	-0.70	2.72	0.52	7.40
Communication	3.25	-1.71	0.05	0.01	0.08	0.23	-5.75	-9.90
Recreation and culture	2.30	1.18	-0.58	1.18	0.42	0.33	0.12	2.25
Education	1.35	6.55	6.88	3.71	3.31	1.24	3.39	0.66
Restaurants and hotels	3.62	7.35	3.19	2.44	5.79	5.44	1.59	6.41
Miscellaneous goods and services	1.92	3.80	2.48	1.98	2.23	1.65	1.02	6.73

**Chart 5: Purchasing Power of Ngultrum (PPN)** 



The purchasing power of Ngultrum as measured by CPI is Nu. 61 as of January 2022 compared to December 2012. This means, Nu. 100 in January 2022 is worth only Nu. 61 at December 2012 prices. The Purchasing Power of Ngultrum as measured by CPI has dropped by 5.69 percent in the last one year (from January 2021 to January 2022) due to price increase in the economy.

#### **Technical notes**

# **Concept and Definition of CPI**

The Consumer Price Index (CPI) is a measure of average price changes in the basket of goods and services purchased by households over time. It shows how much, on average, prices of goods and services have increased or decreased from a particular reference period, commonly known as the Index reference.

# Scope and coverage

The CPI covers the goods and services consumed by the households and a sample of goods and services are selected using the household expenditure data to measure the inflation experienced by the households. Prices of the sampled goods and services are collected from urban areas in 20 Dzongkhags on monthly, quarterly and annual frequency depending on the price volatility of the items. The outlets for data collection are selected based on purposive sampling considering the popularity of the outlet and availability of the items.

CPI baskets has a total of 113 items (314 varieties) classified according to Classification of Individual Consumption According to Purpose (COICOP). Total of about 450 outlets are selected for pricing.

### Weights

Weights reflect the relative importance or share of the individual item to the total consumption expenditures of the households. It determines the impact an individual item will have to the overall inflation. Weight for the current CPI is derived using the household consumption expenditure data from the Bhutan Living Standard Survey (BLSS) conducted every five years. The current weight is based on BLSS 2017.

#### Price reference and index reference

Price reference is the period for which the prices are used as denominator for the index calculation. The price reference period for CPI is April 2019.

Index reference period is the period for which the index is set as 100. The index reference period is April 2019.

#### **Index Calculation Formula**

Geometric Modified Laspeyres formula is used to calculate the CPI:

$$P_{GY_o} = \prod_{i=1}^{n} \left( \frac{P_i^t}{P_i^0} \right)^{s_i^b}$$

 $S_i^b$  = Expenditure Shares of the Base Period (weight from BLSS)

 $P_i^{r}$  = Current Period Price

 $P_i^0$  = Previous Period Price

 $\left(\frac{P_i}{P_I^o}\right)$  = Price Relatives

### **Calculating Percent Changes**

Month-on-month percent change measures the average price change between current month and previous month and serves as useful indicator of short-term price movement.

Year-on-year percent change measures the average price change between the specific month with that of the same month of the previous year.

Following is an example of computing index point and percent changes:

• Index point change

All item price index 104.50 Less previous price index 101.25

Equals index point change 3.25

• Index percent change

Index point change3.25Divided by Previous Price Index101.25Equals0.032

Result multiplied by 100 0.032 x 100

Equals percent changes 3.2