

দ্শশংশ্বল দেন্ত্ৰশাশাৰ্ণদ ক্ৰূপার্থনে জিলাদ দেন্ত্রদা দেশী দি দেই বা Royal Government of Bhutan National Statistics Bureau



## **Consumer Price Index (CPI): December 2020**

(Release date: 16<sup>th</sup> February 2021)



The year-on-year CPI for the month of December increased by 7.72 percent compared to the same month of previous year. The rate is 0.20 percentage point higher than the rate recorded in previous month of November which was 7.52 percent. Vegetables, meat, dairy products and betel nut continue to be the main contributor for the overall increase. Non-food prices went up by 0.37 percent from November and up by 2.02 percent compared to December of last year. Month-on-month CPI increased by 0.56 percent from November due to increase in vegetable prices by 3.72 percent.

On average, the annual CPI recorded an increase of 5.63 percent in 2020 compared to 2.73 percent increase in 2019. The higher rate was mainly due to increase in food group by 11.09 as compared to 3.44 percent increase in 2019. Non-food prices recorded an increase of 1.24 percent in 2020 compared to 2.24 percent in 2019. The lower rate for non-food group in 2020 is associated with minimal increase in transport by 0.52 percent as compared to 2.72 percent in 2019 and also due to decrease in communication prices by 5.75 percent.





#### Chart 1: Percent contribution to overall change by Division



# Chart 2: Index



**Chart 3: Year-on-year percent change** 

# Chart 4: Month-on-month percent change



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

Division	Weight (%) 2017	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
All items	100.00	107.58	107.68	108.29	108.63	108.85	109.46
Food	45.95	114.44	114.58	116.42	116.90	117.34	118.25
Food and non-alcoholic beverages	42.78	114.96	114.97	116.70	117.29	117.62	118.61
Alcoholic beverages and betel nuts	3.17	107.63	109.45	112.70	111.67	113.57	113.57
Non-food	54.05	102.07	102.14	101.83	102.07	102.12	102.51
Clothing and footwear	9.17	104.37	104.37	104.37	105.23	105.37	105.37
Housing and utilities	11.57	103.29	103.34	103.33	103.55	103.57	104.50
Furnishings, household equipment and							
routine household maintenance	4.44	103.66	103.66	103.62	104.14	104.27	104.27
Health	0.81	105.45	105.45	105.45	105.65	105.65	105.65
Transport	15.63	101.30	101.49	101.91	101.70	101.67	102.31
Communication	3.25	93.91	93.91	87.57	87.41	87.41	87.41
Recreation and culture	2.30	100.29	100.29	100.29	100.45	100.54	100.54
Education	1.35	104.75	104.75	104.75	104.75	104.75	104.75
Restaurants and hotels	3.62	101.06	101.06	101.06	101.93	102.21	102.21
Miscellaneous goods and services	1.92	101.71	101.71	102.01	102.23	102.34	102.34

# Table 2: Year-on-year percent change

Division	Weight (%)	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
All item	100.00	7.56	7.44	8.02	7.75	7.52	7.72
Food	45.95	14.91	14.68	16.42	15.45	14.77	14.82
Food and non-alcoholic beverages	42.78	15.45	15.04	16.69	15.76	14.90	14.95
Alcoholic beverages and betel nuts	3.17	7.89	9.82	12.77	11.27	13.00	13.07
Non-food	54.05	1.68	1.65	1.36	1.61	1.72	2.02
Clothing and footwear	9.17	3.97	3.97	3.97	5.02	5.16	5.16
Housing and Utilities	11.57	2.73	2.76	2.74	3.34	3.30	4.16
Furnishings, household equipment and routine household maintenance	4.44	2.46	2.46	2.38	2.88	3.00	3.00
Health	0.81	5.43	5.43	5.43	4.27	4.27	4.27
Transport	15.63	1.11	0.99	1.47	0.94	1.12	1.55
Communication	3.25	-6.16	-6.16	-12.50	-12.58	-12.58	-12.58
Recreation and culture	2.30	0.25	0.25	0.25	0.76	0.86	0.86
Education	1.35	3.42	3.42	3.42	3.42	3.42	3.42
Restaurants and hotels	3.62	1.04	1.04	1.04	1.88	2.17	2.17
Miscellaneous goods and services	1.92	1.38	1.38	1.68	1.88	1.99	1.99

Division	Weights (%)	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
All item	100.00	3.27	0.09	0.57	0.31	0.20	0.56
Food	45.95	5.99	0.12	1.60	0.41	0.38	0.78
Food and non-alcoholic beverages	42.78	6.34	0.01	1.50	0.51	0.28	0.84
Alcoholic beverages and betel nuts	3.17	1.34	1.69	2.97	-0.92	1.70	0.00
Non-food	54.05	1.02	0.06	-0.30	0.23	0.06	0.37
Clothing and footwear	9.17	1.21	0.00	0.00	0.82	0.14	0.00
Housing and utilities	11.57	0.26	0.04	-0.01	0.21	0.03	0.89
Furnishings, household equipment and routine household maintenance Health	4.44 0.81	1.34 2.81	0.00 0.00	-0.04 0.00	0.51 0.18	0.12 0.00	0.00 0.00
Transport	15.63	1.52	0.19	0.41	-0.21	-0.02	0.63
Communication	3.25	0.30	0.00	-6.75	-0.19	0.00	0.00
Recreation and culture	2.30	0.62	0.00	0.00	0.16	0.10	0.00
Education	1.35	0.93	0.00	0.00	0.00	0.00	0.00
Restaurants and hotels	3.62	0.35	0.00	0.00	0.86	0.28	0.00
Miscellaneous goods and services	1.92	2.08	0.00	0.29	0.21	0.11	0.00

 Table 3: Month-on-month percent change

# Table 4: Annual Index (April 2019=100)

Division	Weight	Index (April 2019=100)						
DIVISION	(%)	2015	2016	2017	2018	2019	2020	
All item	100.00	87.6	90.5	95.0	97.54	100.20	105.84	
Food	45.95	83.1	86.3	92.4	96.93	100.26	111.38	
Food and non-alcoholic beverages	42.78	82.5	85.8	92.2	96.76	100.29	111.67	
Alcoholic beverages and betel nuts	3.17	90.3	92.0	94.4	98.94	99.86	107.51	
Non-food	54.05	90.8	93.4	96.7	97.95	100.15	101.39	
Clothing and footwear	9.17	89.7	92.4	95.8	98.35	100.04	103.27	
Housing and Utilities	11.57	87.9	90.7	96.4	97.73	100.20	102.52	
Furnishings, household equipment								
and routine household maintenance	4.44	93.4	95.2	96.5	98.06	100.57	102.95	
Health	0.81	94.2	95.0	96.0	97.85	100.33	103.76	
Transport	15.63	92.8	96.3	98.1	97.42	100.07	100.59	
Communication	3.25	99.6	99.7	99.7	99.79	100.02	94.27	
Recreation and culture	2.30	98.6	98.0	99.2	99.60	99.93	100.04	
Education	1.35	86.8	92.8	96.2	99.41	100.64	104.05	
Restaurants and hotels	3.62	84.3	87.0	89.1	94.29	99.42	101.00	
Miscellaneous goods and services	1.92	92.1	94.4	96.3	98.43	100.05	101.07	

#### Table 5: Annual percent change

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

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



The purchasing power of Ngultrum as measured by CPI is Nu. 66 as of December 2020 compared to December 2012. This means, Nu. 100 in December 2020 is worth only Nu. 66 at December 2012 prices. The PPN has dropped by 7.16 percent in the past 12 months (from December 2019 to November 2020) due to price increase in the economy. On average, the PPN has dropped by 5.33 percent from 2019 to 2020.

#### **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:

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

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

$$P_i^t = \text{Current Period Price}$$

$$P_i^o = \text{Previous Period Price}$$

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

#### **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

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All item price index	104.50
Less previous price index	101.25
Equals index point change	3.25
Index percent change	
Index point change	3.25
Divided by Previous Price Index	x 101.25
Equals	0.032
Result multiplied by 100	0.032 x 100
Equals percent changes	3.2