

Consumer Price Index (CPI): October 2021
(Release date: $6^{\text {th }}$ December, 2021)


| Month-on-month change (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.31 | 0.20 | 0.56 | 1.46 | 0.65 | 0.50 | 1.23 |  |  | 1.09 |  |  | 1.74 |
|  |  |  |  |  |  |  |  |  |  | 0.23 | 0.26 |  |
|  |  |  |  |  |  |  | -0.64 | -0.97 |  |  |  |  |
| $\begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{I}} \\ & \stackrel{1}{\mathrm{O}} \end{aligned}$ | $\begin{aligned} & 0 \\ & \text { N } \\ & \text { B } \\ & 0 \end{aligned}$ |  |  | $\begin{aligned} & \underset{\sim}{N} \\ & \stackrel{0}{1} \end{aligned}$ | $\begin{aligned} & \bar{N} \\ & \text { N } \end{aligned}$ | $\begin{gathered} \underset{N}{\grave{\alpha}} \\ \stackrel{y}{c} \end{gathered}$ | $\begin{aligned} & \underset{\text { I }}{\prime} \\ & \text { ভ } \end{aligned}$ | $\underset{N}{\bar{N}}$ | $\frac{\overline{1}}{\Xi}$ | $\begin{aligned} & \vec{V} \\ & \text { b0 } \\ & \underset{4}{2} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{N} \\ & \stackrel{\rightharpoonup}{\sim} \end{aligned}$ | $\underset{\stackrel{N}{\mathrm{~N}}}{\substack{\text { N}}}$ |

The prices of goods and services became costlier by 6.47 percent in October 2021 compared to the price of October 2020. The rate increased after recording a drop in the previous three months (Jul - Sept). The increase was contributed by Food \& alcoholic beverages; clothing \& footwear; housing \& utilities; and transport accounting for about 85 percent of the total increase. Within food, prices of sugar recorded the highest increase followed by cooking oils and meat.
Price of LGP went up by 50.70 percent and kerosene by 58.20 percent contributing to the increase in housing \& utilities. The increase for transport was due to increase in petrol price by 39 percent and diesel by 51 percent.

Month-on-month CPI (September to October) increased by 1.74 percent due to increase in price of vegetables and fruits by 5 percent; sugar by 23.90 percent; and fuel (petrol \& diesel) by about 7.7 percent on average.

Graph 1: Percent contribution to overall change by Division


## Graph 2: Annual and monthly percent change by category



Table 1: Index (April 2019 = 100)

| Division | Weight (\%) | May-21 | Jun-21 | Jul-21 | Aug-21 | Sep-21 | Oct-21 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All item | 100.00 | 113.00 | 111.91 | 113.13 | 113.38 | 113.68 | 115.66 |
| Food | 45.95 | 121.90 | 118.93 | 119.47 | 119.46 | 120.13 | 122.69 |
| Food and non-alcoholic beverages | 42.78 | 121.48 | 118.43 | 119.01 | 119.06 | 119.85 | 122.63 |
| Alcoholic beverages and betel nuts | 3.17 | 127.79 | 125.90 | 125.88 | 124.98 | 123.86 | 123.59 |
| Non-food | 54.05 | 105.94 | 106.26 | 108.00 | 108.47 | 108.48 | 110.00 |
| Clothing and footwear | 9.17 | 111.77 | 111.77 | 114.66 | 114.66 | 114.66 | 116.72 |
| Housing and Utilities | 11.57 | 108.18 | 108.23 | 110.03 | 110.17 | 110.49 | 110.84 |
| Furnishings, household equipment and routine household maintenance | 4.44 | 107.33 | 107.33 | 109.31 | 109.31 | 109.31 | 111.24 |
| Health | 0.81 | 108.43 | 108.43 | 108.69 | 108.69 | 108.69 | 109.30 |
| Transport | 15.63 | 105.85 | 106.93 | 109.02 | 110.34 | 110.14 | 113.05 |
| Communication | 3.25 | 83.91 | 83.91 | 83.66 | 83.66 | 83.66 | 83.65 |
| Recreation and culture | 2.30 | 102.31 | 102.31 | 102.47 | 102.47 | 102.47 | 102.91 |
| Education | 1.35 | 104.75 | 104.75 | 104.75 | 104.75 | 104.75 | 104.75 |
| Restaurants and hotels | 3.62 | 107.03 | 107.03 | 108.19 | 108.98 | 108.98 | 109.11 |
| Miscellaneous goods and services | 1.92 | 107.04 | 107.04 | 108.87 | 108.98 | 108.98 | 111.81 |

Table 2: Year-on-year percent change

| Division | Weight <br> (\%) | May-21 | Jun-21 | Jul-21 | Aug-21 | Sep-21 | Oct-21 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All item | 100.00 | 8.69 | 7.42 | 5.16 | 5.30 | 4.97 | 6.47 |
| Food | 45.95 | 12.70 | 10.14 | 4.40 | 4.25 | 3.18 | 4.96 |
| Food and non-alcoholic beverages | 42.78 | 12.05 | 9.55 | 3.52 | 3.55 | 2.70 | 4.55 |
| Alcoholic beverages and betel nuts | 3.17 | 21.80 | 18.54 | 16.96 | 14.19 | 9.90 | 10.67 |
| Non-food | 54.05 | 5.40 | 5.17 | 5.81 | 6.20 | 6.52 | 7.77 |
| Clothing and footwear | 9.17 | 8.38 | 8.38 | 9.86 | 9.86 | 9.86 | 10.92 |
| Housing and Utilities | 11.57 | 6.85 | 5.05 | 6.52 | 6.61 | 6.93 | 7.05 |
| Furnishings, household equipment and routine household maintenance | 4.44 | 4.93 | 4.93 | 5.46 | 5.46 | 5.50 | 6.81 |
| Health | 0.81 | 5.71 | 5.71 | 3.07 | 3.07 | 3.07 | 3.46 |
| Transport | 15.63 | 8.10 | 7.16 | 7.62 | 8.72 | 8.08 | 11.17 |
| Communication | 3.25 | -16.09 | -10.39 | -10.92 | -10.92 | -4.47 | -4.30 |
| Recreation and culture | 2.30 | 2.65 | 2.65 | 2.18 | 2.18 | 2.18 | 2.46 |
| Education | 1.35 | 0.93 | 0.93 | 0.00 | 0.00 | 0.00 | 0.00 |
| Restaurants and hotels | 3.62 | 6.28 | 6.28 | 7.05 | 7.84 | 7.84 | 7.04 |
| Miscellaneous goods and services | 1.92 | 7.43 | 7.43 | 7.03 | 7.14 | 6.83 | 9.38 |

Table 3: Month-on-month percent change

| Division | Weights (\%) | May-21 | Jun-21 | Jul-21 | Aug-21 | Sep-21 | Oct-21 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All item | 100.00 | -0.64 | -0.97 | 1.09 | 0.23 | 0.26 | 1.74 |
| Food | 45.95 | -1.38 | -2.44 | 0.46 | -0.02 | 0.56 | 2.14 |
| Food and non-alcoholic beverages | 42.78 | -1.37 | -2.51 | 0.49 | 0.04 | 0.67 | 2.32 |
| Alcoholic beverages and betel nuts | 3.17 | -1.55 | -1.48 | -0.02 | -0.72 | -0.90 | -0.22 |
| Non-food | 54.05 | -0.01 | 0.30 | 1.63 | 0.43 | 0.01 | 1.40 |
| Clothing and footwear | 9.17 | 0.00 | 0.00 | 2.59 | 0.00 | 0.00 | 1.79 |
| Housing and utilities | 11.57 | 0.00 | 0.04 | 1.66 | 0.13 | 0.29 | 0.32 |
| Furnishings, household equipment and routine household maintenance | 4.44 | 0.00 | 0.00 | 1.85 | 0.00 | 0.00 | 1.76 |
| Health | 0.81 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.56 |
| Transport | 15.63 | 0.78 | 1.02 | 1.95 | 1.22 | -0.18 | 2.64 |
| Communication | 3.25 | -3.78 | 0.00 | -0.29 | 0.00 | 0.00 | -0.01 |
| Recreation and culture | 2.30 | 0.00 | 0.00 | 0.15 | 0.00 | 0.00 | 0.43 |
| Education | 1.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Restaurants and hotels | 3.62 | 0.00 | 0.00 | 1.08 | 0.74 | 0.00 | 0.11 |
| Miscellaneous goods and services | 1.92 | 0.00 | 0.00 | 1.70 | 0.10 | 0.00 | 2.60 |

Table 4: Annual Index (April 2019= 100)

| Division | Weight <br> (\%) | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All item | 100.00 | 83.84 | 87.65 | 90.47 | 94.95 | 97.54 | 100.20 | 105.84 |
| Food | 45.95 | 80.47 | 83.06 | 86.26 | 92.37 | 96.93 | 100.26 | 111.38 |
| Food and non-alcoholic beverages <br> Alcoholic beverages and betel | 42.78 | 79.87 | 82.49 | 85.81 | 92.21 | 96.76 | 100.29 | 111.67 |
| nuts | 3.17 | 88.03 | 90.27 | 91.98 | 94.45 | 98.94 | 99.86 | 107.51 |
| Non-food | 54.05 | 86.16 | 90.84 | 93.39 | 96.72 | 97.95 | 100.15 | 101.39 |
| Clothing and footwear | 9.17 | 86.03 | 89.75 | 92.42 | 95.85 | 98.35 | 100.04 | 103.27 |
| Housing and Utilities | 11.57 | 82.58 | 87.91 | 90.74 | 96.37 | 97.73 | 100.20 | 102.52 |
| Furnishings, household equipment and routine household |  |  |  |  |  |  |  |  |
| maintenance | 4.44 | 90.54 | 93.43 | 95.16 | 96.48 | 98.06 | 100.57 | 102.95 |
| Health | 0.81 | 91.69 | 94.23 | 94.98 | 95.97 | 97.85 | 100.33 | 103.76 |
| Transport | 15.63 | 85.54 | 92.81 | 96.28 | 98.11 | 97.42 | 100.07 | 100.59 |
| Communication | 3.25 | 101.38 | 99.65 | 99.70 | 99.71 | 99.79 | 100.02 | 94.27 |
| Recreation and culture | 2.30 | 97.45 | 98.60 | 98.02 | 99.18 | 99.60 | 99.93 | 100.04 |
| Education | 1.35 | 81.48 | 86.81 | 92.78 | 96.22 | 99.41 | 100.64 | 104.05 |
| Restaurants and hotels | 3.62 | 78.54 | 84.31 | 87.00 | 89.13 | 94.29 | 99.42 | 101.00 |
| Miscellaneous goods and services | 1.92 | 88.77 | 92.14 | 94.42 | 96.29 | 98.43 | 100.05 | 101.07 |

Table 5: Annual percent change

| Division | Peight |  |  |  |  |  |  | Percent change |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
|  | $(\mathbf{\%})$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ |  |  |  |  |  |
| All item | $\mathbf{1 0 0 . 0 0}$ | $\mathbf{8 . 2 7}$ | $\mathbf{4 . 5 5}$ | $\mathbf{3 . 2 2}$ | $\mathbf{4 . 9 6}$ | $\mathbf{2 . 7 2}$ | $\mathbf{2 . 7 3}$ | $\mathbf{5 . 6 3}$ |  |  |  |  |  |
| Food | $\mathbf{4 5 . 9 5}$ | $\mathbf{1 0 . 3 3}$ | $\mathbf{3 . 2 2}$ | $\mathbf{3 . 8 6}$ | $\mathbf{7 . 0 9}$ | $\mathbf{4 . 9 3}$ | $\mathbf{3 . 4 4}$ | $\mathbf{1 1 . 0 9}$ |  |  |  |  |  |
| $\quad$ Food and non-alcoholic beverages | 42.78 | 10.08 | 3.27 | 4.02 | 7.46 | 4.94 | 3.64 | 11.35 |  |  |  |  |  |
| $\quad$ Alcoholic beverages and betel nuts | 3.17 | 13.27 | 2.54 | 1.90 | 2.68 | 4.75 | 0.94 | 7.66 |  |  |  |  |  |
| Non-food | $\mathbf{5 4 . 0 5}$ | $\mathbf{6 . 9 1}$ | $\mathbf{5 . 4 4}$ | $\mathbf{2 . 8 0}$ | $\mathbf{3 . 5 6}$ | $\mathbf{1 . 2 8}$ | $\mathbf{2 . 2 4}$ | $\mathbf{1 . 2 4}$ |  |  |  |  |  |
| $\quad$ Clothing and footwear | 9.17 | 6.99 | 4.32 | 2.97 | 3.71 | 2.61 | 1.72 | 3.23 |  |  |  |  |  |
| Housing and Utilities | 11.57 | 9.34 | 6.45 | 3.22 | 6.21 | 1.41 | 2.53 | 2.32 |  |  |  |  |  |
| $\quad$ Furnishings, household equipment |  |  |  |  |  |  |  |  |  |  |  |  |  |
| and routine household maintenance | 4.44 | 7.62 | 3.20 | 1.85 | 1.39 | 1.63 | 2.56 | 2.37 |  |  |  |  |  |
| $\quad$ Health | 0.81 | 1.71 | 2.77 | 0.80 | 1.05 | 1.96 | 2.54 | 3.41 |  |  |  |  |  |
| Transport | 15.63 | 8.46 | 8.51 | 3.73 | 1.90 | -0.70 | 2.72 | 0.52 |  |  |  |  |  |
| Communication | 3.25 | -2.83 | -1.71 | 0.05 | 0.01 | 0.08 | 0.23 | -5.75 |  |  |  |  |  |
| Recreation and culture | 2.30 | 2.09 | 1.18 | -0.58 | 1.18 | 0.42 | 0.33 | 0.12 |  |  |  |  |  |
| Education | 1.35 | 6.93 | 6.55 | 6.88 | 3.71 | 3.31 | 1.24 | 3.39 |  |  |  |  |  |
| Restaurants and hotels | 3.62 | 3.52 | 7.35 | 3.19 | 2.44 | 5.79 | 5.44 | 1.59 |  |  |  |  |  |
| Miscellaneous goods and services | 1.92 | 6.97 | 3.80 | 2.48 | 1.98 | 2.23 | 1.65 | 1.02 |  |  |  |  |  |

Chart 5: Purchasing Power of Ngultrum (PPN)

| 67 | 66 | 66 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 65 | 65 | 64 |  | 64 | 65 | 64 | 64 |  |  |
| $\begin{aligned} & \stackrel{0}{N} \\ & \stackrel{1}{U} \end{aligned}$ | $\begin{aligned} & \text { ô } \\ & \text { I } \\ & \text { I} \\ & Z \end{aligned}$ | $\begin{aligned} & \text { O} \\ & \text { İ } \\ & \text { O} \end{aligned}$ | $\begin{aligned} & \overline{\text { IN}} \\ & \stackrel{\rightharpoonup}{\mathbf{I}} \end{aligned}$ | $\begin{aligned} & \bar{N} \\ & \stackrel{1}{0} \\ & \dot{\sim} \end{aligned}$ |  | $\begin{gathered} \stackrel{\rightharpoonup}{N} \\ \vdots \\ \stackrel{\rightharpoonup}{4} \end{gathered}$ | $\begin{aligned} & \underset{N}{N} \\ & \stackrel{\text { İ }}{2} \end{aligned}$ | $\stackrel{\underset{N}{N}}{\substack{\Xi}}$ | $\frac{\overline{1}}{3}$ | $\begin{aligned} & \underset{\sim}{1} \\ & D_{0} \\ & \underset{Z}{0} \end{aligned}$ | $\begin{gathered} \underset{N}{0} \\ \stackrel{i}{0} \\ \dot{\sim} \end{gathered}$ | $\begin{gathered} \stackrel{\rightharpoonup}{U} \\ \stackrel{\rightharpoonup}{0} \end{gathered}$ |

The purchasing power of Ngultrum as measured by CPI is Nu. 63 as of October 2021 compared to December 2012. This means, Nu. 100 in October 2021 is worth only Nu. 63 at December 2012 prices. The PPN has dropped by 6.08 percent in the past 12 months (from October 2020 to October 2021) 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:

$$
\begin{array}{ll}
P_{G Y o} & =\prod_{i=1}^{n}\left(\frac{\boldsymbol{P}_{i}^{t}}{\boldsymbol{P}_{i}^{0}}\right)^{s_{i}^{b}} \\
S_{i}^{b} & =\text { Expenditure Shares of the Base Period (weight from BLSS) } \\
P_{i}^{t} & =\text { Current Period Price } \\
P_{i}^{o} & =\text { Previous Period Price } \\
\left(\frac{P_{i}^{t}}{P_{I}^{o}}\right) & =\text { Price Relatives }
\end{array}
$$

## 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 change <br> 3.25

Divided by Previous Price Index 101.25
Equals 0.032
Result multiplied by $100 \quad 0.032 \times 100$
Equals percent changes 3.2

