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རྒྱལ་ཡོངས་ཚེས་དཔྱད་བཀོད་འཛིན།  
ཐིམ་ཕུ།

ROYAL GOVERNMENT OF BHUTAN  
NATIONAL STATISTICS BUREAU  
THIMPHU



# Producer Price Index (PPI) Fourth Quarter-2023

Economic and Environmental  
Statistics Division  
National Statistics Bureau

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## Foreword

The National Statistics Bureau (NSB) is delighted to announce the release of the Producer Price Index (PPI) Bulletin for the fourth quarter of 2023 (September-December). This marks the 44th edition of the PPI bulletin published by the Bureau.

The PPI serves as a gauge of the average price fluctuations of goods and services over time, providing insights from the producer's standpoint. It distinguishes itself from the Consumer Price Index (CPI), which reflects price variations from the consumer's viewpoint.

Bhutan's PPI encompasses sectors such as logging, mining and quarrying, manufacturing, electricity, gas, steam, air conditioning supply, transport, and information & communication. It encompasses domestically produced goods and services.

The NSB extends its heartfelt appreciation to all government agencies, private enterprises, and corporations for their invaluable contribution to data, which facilitated the publication of this bulletin. We eagerly anticipate your continued support and collaboration in the future.

April, 2024

National Statistics Bureau

Thimphu: Bhutan

## **Highlights**

### **Year-on-Year inflation**

Year-on-year (YoY) inflation for September, October, and December 2023, as measured by the Producer Price Index (PPI), stands at (2.88)%, (3.08)%, and (2.91)%, respectively, reflecting an average decrease of 2.96% compared to the corresponding quarter of the previous year.

The Mining & Quarrying, Manufacturing, and Information & Communication sectors were key contributors to the decline in inflation during the quarter compared to the same period of the previous year. The Mining & Quarrying sector registered decreases of 7.3%, 12.1%, and 12.04%, attributed to lower prices of coal and other mineral products between September and December 2023 compared to the corresponding period in the previous year. Similarly, the manufacturing sector witnessed a decline of 8.28%, 6.66%, and 6.60% in September, October, and November respectively. This downward trend was driven by various factors impacting production costs.

In the Information & Communication sector, there was an average decline of 7.65%, mainly due to reduced prices of post-paid and prepaid services from October to November 2023.

Conversely, the transport sector recorded a year-on-year increase of 4.22%, primarily attributed to higher public bus and taxi fares introduced in August 2023, which contributed to the overall rise in inflation.

Meanwhile, the electricity, gas, steam, & air conditioning supply, and Forestry and logging sectors observed no change in prices during the fourth quarter of 2023 compared to the same period of the previous year.

### **Month-to-month inflation**

During the quarter, month-to-month inflation experienced a decrease of 0.62%, 1.01%, and 0.09% in October, November, and December respectively. This decline was attributed to price decreases in the manufacturing, information and communication, and mining and quarrying sectors, with average declines of 1.68%, 0.71%, and 3.33% respectively.

Conversely, Forestry & Logging, Electricity, gas, steam, and air conditioning supply, and transport sectors saw no change in prices during the fourth quarter of 2023 compared to the same period the previous year.

**Table 1: Annual and monthly PPI and inflation by industry**

ISIC Code	Sectors	Weights (%)	PPI Index Level (2017=100)							Monthly Inflation (%)			Annual Inflation (%)		
			Oct-22	Nov-22	Dec-22	Sep-23	Oct-23	Nov-23	Dec-23	Oct-23	Nov-23	Dec-23	Oct-23	Nov-23	Dec-23
	All Industry	1.00	101.68	100.86	100.59	99.37	98.75	97.76	97.67	-0.62	-1.01	-0.09	-2.88	-3.08	-2.91
A	Forestry & Logging	0.04	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
B	Mining and quarrying	0.09	107.02	107.09	106.71	98.84	99.15	94.12	93.86	0.31	-5.07	-0.27	-7.36	-12.11	-12.04
C	Manufacturing	0.34	95.60	93.43	92.65	88.92	87.68	87.21	87.03	-1.38	-0.54	-0.20	-8.28	-6.66	-6.06
D	Electricity, gas, steam and air conditioning supply	0.27	103.61	103.61	103.61	103.61	103.61	103.61	103.61	0.00	0.00	0.00	0.00	0.00	0.00
H	Transport	0.21	109.03	108.81	109.04	113.56	113.56	113.56	113.56	0.00	0.00	0.00	4.15	4.37	4.14
J	Information and communication	0.05	95.94	95.94	95.94	95.94	92.66	86.58	86.58	-3.42	-6.56	0.00	-3.42	-9.76	-9.76

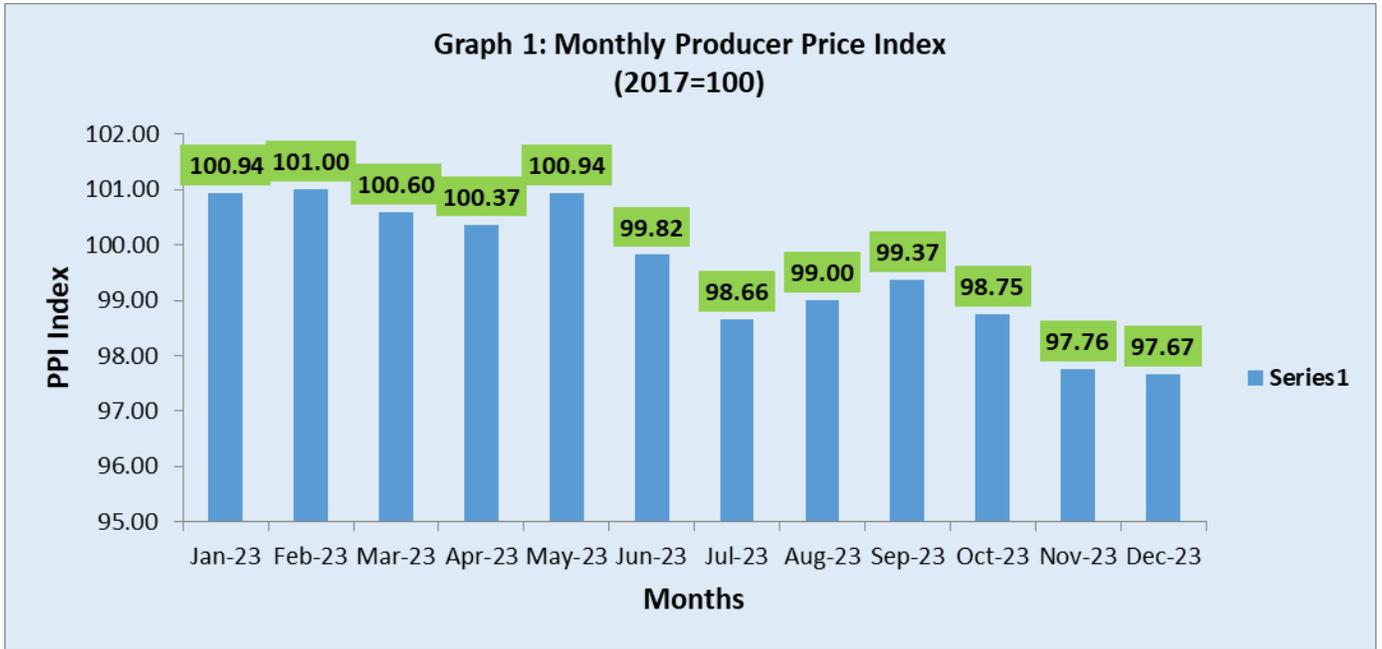
**Table 2: Annual and monthly PPI and inflation at sub-group level by industry classification**

ISIC Code	ISIC description	Weights (%)	PPI Index Level (2017=100)							Monthly Inflation (%)			Annual Inflation (%)		
			Oct-22	Nov-22	Dec-22	Sep-23	Oct-23	Nov-23	Dec-23	Oct-23	Nov-23	Dec-23	Oct-23	Nov-23	Dec-23
	<b>All Industry</b>	<b>1.00</b>	<b>101.63</b>	<b>100.86</b>	<b>100.59</b>	<b>99.37</b>	<b>98.75</b>	<b>97.76</b>	<b>97.67</b>	<b>-0.62</b>	<b>-1.01</b>	<b>-0.09</b>	<b>-2.83</b>	<b>-3.08</b>	<b>-2.91</b>
<b>A</b>	<b>Forestry and Logging</b>	<b>0.0395</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
02	Forestry and logging	0.0395	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
022	logging	0.0395	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>B</b>	<b>Mining and quarrying</b>	<b>0.0910</b>	<b>107.02</b>	<b>107.09</b>	<b>106.71</b>	<b>98.84</b>	<b>99.15</b>	<b>94.12</b>	<b>93.86</b>	<b>0.31</b>	<b>-5.07</b>	<b>-0.27</b>	<b>-7.36</b>	<b>-12.11</b>	<b>-12.04</b>
05	mining of coal and lignite	0.0282	102.01	102.01	102.01	100.57	101.20	100.70	99.82	0.62	-0.49	-0.88	-0.79	-1.28	-2.14
051	mining of hard coal	0.0282	102.01	102.01	102.01	100.57	101.20	100.70	99.82	0.62	-0.49	-0.88	-0.79	-1.28	-2.14
08	other mining and quarrying	0.0628	109.36	109.46	108.89	98.08	98.24	91.30	91.30	0.17	-7.07	0.00	-10.17	-16.59	-16.16
081	quarrying of sand, stone and clay	0.0628	109.36	109.46	108.89	98.08	98.24	91.30	91.30	0.17	-7.07	0.00	-10.17	-16.59	-16.16
<b>C</b>	<b>Manufacturing</b>	<b>0.3357</b>	<b>95.60</b>	<b>93.43</b>	<b>92.65</b>	<b>88.92</b>	<b>87.68</b>	<b>87.21</b>	<b>87.03</b>	<b>-1.38</b>	<b>-0.54</b>	<b>-0.20</b>	<b>-8.28</b>	<b>-6.66</b>	<b>-6.06</b>
10	Manufacturing of food products	0.0202	103.91	103.80	102.32	104.43	104.65	107.50	107.03	0.22	2.72	-0.44	0.71	3.56	4.60
103	Processing and preserving of fruits and vegetables	0.0114	107.02	106.83	106.83	112.88	113.31	113.31	112.43	0.38	0.00	-0.78	5.87	6.07	5.24
104	Manufacture of vegetables and animal oils and fats	0.0031	107.02	106.83	106.83	112.88	113.31	113.31	112.43	0.38	0.00	-0.78	5.87	6.07	5.24
108	Prepared animal feeds	0.0057	100.00	100.00	95.01	91.45	91.45	100.59	100.59	0.00	10.00	0.00	-8.55	0.59	5.88
11	Manufacture of beverages	0.0389	100.33	100.33	100.33	100.34	100.06	100.06	100.06	-0.27	0.00	0.00	-0.26	-0.26	-0.26
110	Manufacture of beverages	0.0389	100.33	100.33	100.33	100.34	100.06	100.06	100.06	-0.27	0.00	0.00	-0.26	-0.26	-0.26

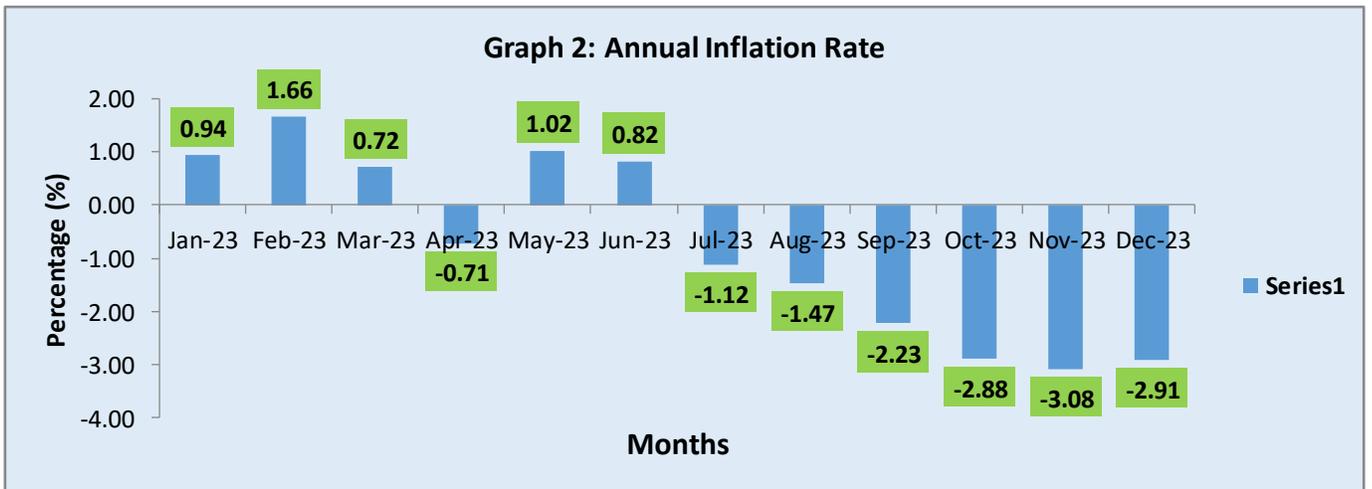
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	0.0064	95.98	95.98	95.98	95.98	95.98	95.98	95.98	0.00	0.00	0.00	0.00	0.00	0.00
161	Sawmilling and planing of wood	0.0020	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
162	Manufacture of products of wood, cork, straw and plaiting materials	0.0044	94.21	94.21	94.21	94.21	94.21	94.21	94.21	0.00	0.00	0.00	0.00	0.00	0.00
18	Printing and reproduction of recorded media	0.0048	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
181	Printing and services related to printing	0.0048	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
20	Manufacture of chemical and chemical products	0.0269	102.04	98.35	102.04	92.99	81.38	81.38	86.85	-12.48	0.00	6.72	-20.24	-17.25	-14.89
201	Manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in primary forms	0.0269	102.04	98.35	102.04	92.99	81.38	81.38	86.85	-12.48	0.00	6.72	-20.24	-17.25	-14.89
22	Manufacture of rubber and plastic products	0.0248	100.44	100.70	100.70	104.49	103.97	103.96	103.49	-0.50	-0.01	-0.45	3.51	3.24	2.78
222	manufacture of plastic products	0.0248	100.44	100.70	100.70	104.49	103.97	103.96	103.49	-0.50	-0.01	-0.45	3.51	3.24	2.78
23	Manufacture of other non-metallic mineral products	0.0660	104.69	106.17	107.05	112.10	112.51	112.51	111.77	0.36	0.00	-0.66	7.47	5.98	4.41
239	Manufacture of non-metallic mineral products n.e.c	0.0660	104.69	106.17	107.05	112.10	112.51	112.51	111.77	0.36	0.00	-0.66	7.47	5.98	4.41

24	Manufacture of basic metals	0.1370	86.78	82.04	79.64	70.88	70.29	69.09	68.19	-0.83	-1.71	-1.30	-19.00	-15.79	-14.38
241	manufacture of basic iron and steel	0.1370	86.78	82.04	79.64	70.88	70.29	69.09	68.19	-0.83	-1.71	-1.30	-19.00	-15.79	-14.38
31	Manufacture of furniture	0.0108	100.00	100.00	100.00	102.67	102.67	102.67	102.67	0.00	0.00	0.00	2.67	2.67	2.67
310	Manufacture of furniture	0.0108	100.00	100.00	100.00	102.67	102.67	102.67	102.67	0.00	0.00	0.00	2.67	2.67	2.67
<b>D</b>	<b>Electricity, gas, stream and air conditioning supply</b>	<b>0.2716</b>	<b>103.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						
35	Electricity, gas, steam and air conditioning supply	0.2716	103.61	103.61	103.61	103.61	103.61	103.61	103.61	0.00	0.00	0.00	0.00	0.00	0.00
351	Electric power generation, transmission and distribution	0.2716	103.61	103.61	103.61	103.61	103.61	103.61	103.61	0.00	0.00	0.00	0.00	0.00	0.00
<b>H</b>	<b>Transport and Storage</b>	<b>0.2099</b>	<b>109.03</b>	<b>108.81</b>	<b>109.04</b>	<b>113.56</b>	<b>113.56</b>	<b>113.56</b>	<b>113.56</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.15</b>	<b>4.37</b>	<b>4.14</b>
49	land transport and transport via pipeline	0.0962	110.32	110.32	110.32	119.82	119.82	119.82	119.82	0.00	0.00	0.00	8.61	8.61	8.61
492	Other land transport	0.0962	110.32	110.32	110.32	119.82	119.82	119.82	119.82	0.00	0.00	0.00	8.61	8.61	8.61
51	Air transport	0.1105	108.14	107.72	108.16	108.71	108.85	108.90	108.90	0.12	0.04	0.01	0.65	1.09	0.69
511	Passenger air transport	0.1105	108.14	107.72	108.16	108.71	108.85	108.90	108.90	0.12	0.04	0.01	0.65	1.09	0.69
53	Postal and Courier activities	0.0032	101.49	101.40	101.50	101.63	101.66	101.67	101.67	0.03	0.01	0.00	0.16	0.26	0.17
531	Postal activities	0.0027	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
532	Courier activities	0.0129	110.59	109.91	110.63	111.56	111.79	111.87	111.89	0.20	0.07	0.01	1.09	1.79	1.14
<b>J</b>	<b>Information and communication</b>	<b>0.0522</b>	<b>95.94</b>	<b>95.94</b>	<b>95.94</b>	<b>95.94</b>	<b>92.66</b>	<b>86.58</b>	<b>86.58</b>	<b>-3.42</b>		<b>0.00</b>	<b>-3.42</b>	<b>-9.76</b>	<b>-9.76</b>
61	Telecommunication	0.0522	95.94	95.94	95.94	95.94	92.66	86.58	86.58	-3.42	-6.56	0.00	-3.42	-9.76	-9.76
612	Wireless telecommunication activities	0.0522	95.94	95.94	95.94	95.94	92.66	86.58	86.58	-3.42	-6.56	0.00	-3.42	-9.76	-9.76

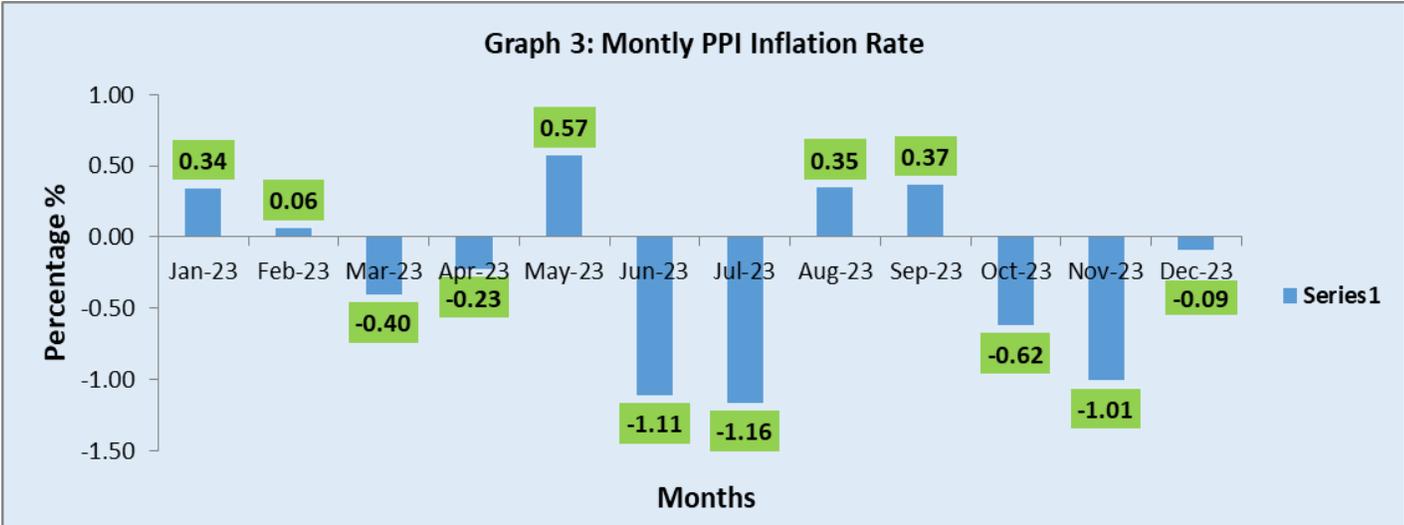
**Graph 1: Time series of monthly Producer Price Index (PPI)**



**Graph 2: Year-on-year inflation rate**



**Graph 3: Month-to-month inflation rate**



## Technical Notes

### Definition

Producer Price Index (PPI) is the measure of average change over time in the prices received by the domestic producer of goods and services. It shows the average change in the prices of goods and services with reference to a particular reference period known as Index reference.

### Scope and Coverage

The PPI covers domestically produced goods and services that are destined for domestic as well as export markets. The sectors included are logging, mining and quarrying, manufacturing, utilities (electricity and water), transport, and the Information & communication sector. PPI is classified and compiled by activity (ISIC rev. 4) and also by product (CPC rev. 2).

### Weights

Weights denote the significance or relative importance of each level or group to the total. PPI weights are developed using the total value of turnover figure from the establishment Economic Census of Bhutan ECoB 2017 which is carried out by the National Statistics Bureau (NSB).

### Index Reference

The index reference for the calculation of the PPI is 2017 which is normally set as 100.

### Price Collection

Point-in-time prices are collected for the PPI compilation i.e. price of a product on the 15th day of every month or the nearest trading day to the 15th of the month

### Index calculation methodology

Geometric Modified Laspeyre's formula is used for compiling PPI

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

## Uses of PPI

1. As deflator in National Accounts to estimate the real growth rate
2. As a lead indicator of inflationary trends
3. Indexation of cost escalation in long-term contracts of goods and services
4. Business Analysis
5. Current cost accounting

## Calculating Index Changes

Movement of the Price index from one month to another is usually expressed in terms of percent changes, rather than as changes in index points. Index point changes are affected by the level of the index in relation to its base period, whereas percent changes are not. The following example shows the computation of index points and percent changes.

### *Index point change*

All industry's Price Index	104.50
The 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	101.25
Equals	0.032
Result multiplied by 100	0.032 x 100
Equals percent changes	3.2

## Revision Policy

If the data are not received on time from the sources, the index published for that particular quarter will be marked as "Provisional" and this will be finalized when the next quarter index is published.

## Dissemination

PPI Bulletin will be compiled and published on a quarterly basis. It will be made available in hard copy as well as in electronic version through our website ([www.nsb.gov.bt](http://www.nsb.gov.bt)).