



དཔལ་ལྷན་འབྲུག་གཞུང་།  
རྒྱལ་ཡོངས་ཚེས་དབྱེད་བཀོད་འཛིན།  
ཐིམ་ཕུ།

ROYAL GOVERNMENT OF BHUTAN  
NATIONAL STATISTICS BUREAU  
THIMPHU



# Producer Price Index (PPI) Fourth Quarter-2022

Economic and Environmental  
Statistics Division  
National Statistics Bureau

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## Foreword

The National Statistics Bureau (NSB) is pleased to release the **Producer Price Index (PPI)** Bulletin for the fourth quarter (October-December), 2022. This is the 40<sup>th</sup> series of PPI bulletin published by the Bureau.

The PPI is a measure of average price change of goods and services over time. It measures price change from producer's perspective unlike the Consumer Price Index (CPI) which measures the price change from the purchaser's perspective.

Bhutan's PPI covers logging, mining and quarrying, manufacturing, Electricity, gas, steam and air conditioning supply, transport, and Information and communication sectors. It covers domestically produced goods and services.

The NSB would like to express its sincere gratitude to all government agencies, private companies, and corporations for providing the data for the publication of this bulletin. We look forward to your continued support and co-operation in the future as well.

October, 2023

National Statistics Bureau

Thimphu: Bhutan

## **Highlights**

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

The year-on-year (YoY) inflation rate (as measured by PPI) for October, November, and December as compared to the same months of the previous year is recorded at 2.93%, 2.10%, and 0.59% respectively. On average this is an increase of 1.88% from the third quarter of the previous year (i.e. 2021).

Mining and quarrying and transport sectors were the primary drivers of inflation. In the months of October, November, and December Mining and quarrying sector recorded an increase of 7.28%, 7.35%, and 6.71% respectively. The transportation sector was next, with a three-month average gain of 11.77% (Oct-Dec). The primary contributor to the total increase in the Transport sector was an increase in the bus fare and also due to the fluctuation in the exchange rate. The electricity, gas, steam, and air conditioning supply sector shows a constant growth of 3.61% compared to the previous year. On the other side, the Manufacturing sector recorded a decrease of 1.97%, 4.20%, and 7.35% in the months of October, November, and December respectively. The information and communication sector shows a constant decline of 4.07% throughout the three months.

Forestry and Logging sector prices remained unchanged.

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

The month-to-month PPI shows an increase in October month by 0.05% compared to the prior month but it declined by 0.81% and 0.27% in the months of November and December respectively. On average, it decreased by 0.34% in the fourth quarter due to a decrease in the price of the manufacturing sector with an average decline of 1.16%, and the Mining and Quarrying sectors by 0.11%. The transport sector showed an increase of 0.86% and 0.22% in the months of October and December but it showed decline in the month of November with 0.21%. Prices remained same for Electricity, gas, steam, and air conditioning supply, the Information and communication sector and, Forestry & Logging sector in all the three months.

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

ISIC Code	Sectors	Weights (%)	PPI Index Level (2017=100)							Monthly Inflation (%)			Annual Inflation (%)		
			Oct-21	Nov-21	Dec-21	Sep-22	Oct-22	Nov-22	Dec-22	Oct-22	Nov-22	Dec-22	Oct-22	Nov-22	Dec-22
	All Industry	1.00	98.78	105.58	100.00	101.63	101.68	100.86	100.59	0.05	-0.81	-0.27	2.93	-4.47	0.59
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	99.76	99.76	100.00	107.08	107.02	107.09	106.71	-0.05	0.06	-0.35	7.28	7.35	6.71
C	Manufacturing	0.34	97.52	97.52	100.00	95.95	95.60	93.43	92.65	-0.37	-2.27	-0.84	-1.97	-4.20	-7.35
D	Electricity, gas, steam and air conditioning supply	0.27	100.00	100.00	100.00	103.61	103.61	103.61	103.61	0.00	0.00	0.00	3.61	3.61	3.61
H	Transport	0.21	97.46	97.31	97.69	108.10	109.03	108.81	109.04	0.86	-0.21	0.22	11.88	11.82	11.62
J	Information and communication	0.05	100.00	100.00	100.00	95.94	95.94	95.94	95.94	0.00	0.00	0.00	-4.06	-4.06	-4.06

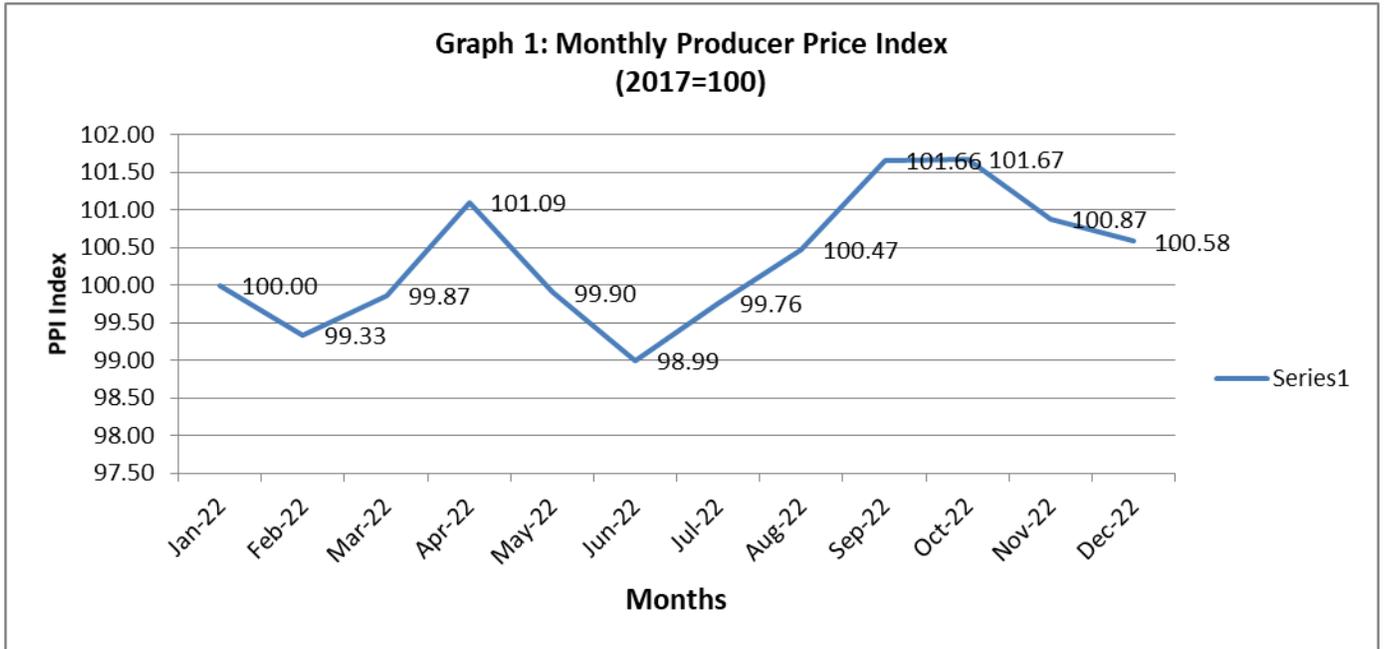
**Table 2: Annual and monthly PPI and inflation at sub-group level by industry classification**

ISIC Code	ISIC description	Weights (%)	PPI Index Level (2017=100)							Monthly Inflation (%)			Annual Inflation (%)		
			Oct-21	Nov-21	Dec-21	Sep-22	Oct-22	Nov-22	Dec-22	Oct-22	Nov-22	Dec-22	Oct-22	Nov-22	Dec-22
	<b>All Industry</b>	<b>1.00</b>	<b>98.78</b>	<b>105.58</b>	<b>100.00</b>	<b>101.63</b>	<b>101.68</b>	<b>100.86</b>	<b>100.59</b>	<b>0.05</b>	<b>-0.81</b>	<b>-0.27</b>	<b>2.93</b>	<b>-4.47</b>	<b>0.59</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>99.76</b>	<b>99.76</b>	<b>100.00</b>	<b>107.08</b>	<b>107.02</b>	<b>107.09</b>	<b>106.71</b>	<b>-0.05</b>	<b>0.06</b>	<b>-0.35</b>	<b>7.28</b>	<b>7.35</b>	<b>6.71</b>
05	mining of coal and lignite	0.0282	98.43	98.43	100.00	102.01	102.01	102.01	102.01	0.00	0.00	0.00	3.64	3.64	2.01
051	mining of hard coal	0.0282	98.43	98.43	100.00	102.01	102.01	102.01	102.01	0.00	0.00	0.00	3.64	3.64	2.01
08	other mining and quarrying	0.0628	100.00	100.00	100.00	109.44	109.36	109.46	108.89	-0.07	0.09	-0.51	9.36	9.46	8.89
081	quarrying of sand, stone and clay	0.0628	100.00	100.00	100.00	109.44	109.36	109.46	108.89	-0.07	0.09	-0.51	9.36	9.46	8.89
<b>C</b>	<b>Manufacturing</b>	<b>0.3357</b>	<b>97.52</b>	<b>97.52</b>	<b>100.00</b>	<b>95.95</b>	<b>95.60</b>	<b>93.43</b>	<b>92.65</b>	<b>-0.37</b>	<b>-2.27</b>	<b>-0.84</b>	<b>-1.97</b>	<b>-4.20</b>	<b>-7.35</b>
10	Manufacturing of food products	0.0202	100.00	100.00	100.00	103.91	103.91	103.80	102.32	0.00	-0.11	-1.43	3.91	3.80	2.32
103	Processing and preserving of fruits and vegetables	0.0114	100.00	100.00	100.00	107.02	107.02	106.83	106.83	0.00	-0.19	0.00	7.02	6.83	6.83
104	Manufacture of vegetables and animal oils and fats	0.0031	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
108	Prepared animal feeds	0.0057	100.00	100.00	100.00	100.00	100.00	100.00	95.01	0.00	0.00	-4.99	0.00	0.00	-4.99
11	Manufacture of beverages	0.0389	100.00	100.00	100.00	100.15	100.33	100.33	100.33	0.18	0.00	0.00	0.33	0.33	0.33
110	Manufacture of beverages	0.0389	100.95	100.95	100.95	100.15	100.33	100.33	100.33	0.18	0.00	0.00	-0.62	-0.62	-0.62

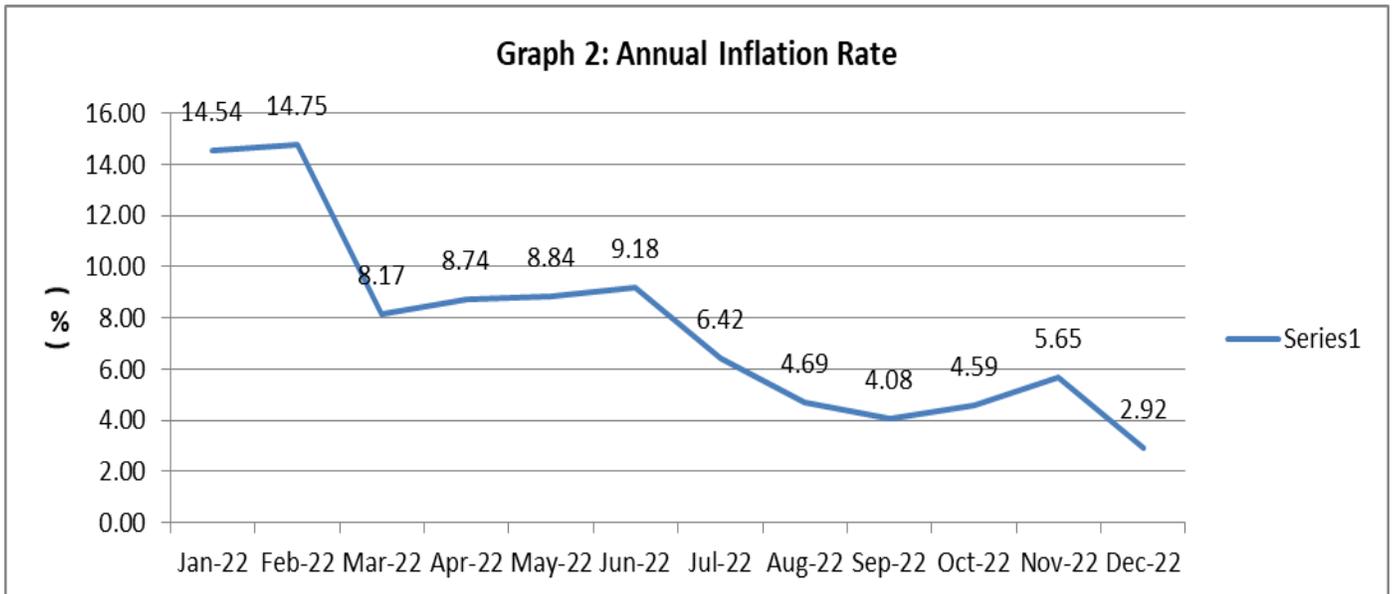
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	0.0064	93.54	93.54	93.54	95.98	95.98	95.98	95.98	0.00	0.00	0.00	2.61	2.61	2.61
161	Sawmilling and planing of wood	0.0020	100.00	100.00	100.00	100.00	100.00	100.00	100.00	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	92.19	92.19	92.19	94.21	94.21	94.21	94.21	0.00	0.00	0.00	2.20	2.20	2.20
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	100.00	100.00	100.00	94.58	102.04	98.35	102.04	7.89	-3.62	3.75	2.04	-1.65	2.04
201	Manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and sythetic rubber in primary forms	0.0269	100.00	100.00	100.00	94.58	102.04	98.35	102.04	7.89	-3.62	3.75	2.04	-1.65	2.04
22	Manufacture of rubber and plastic products	0.0248	98.91	98.91	98.91	101.27	100.44	100.70	100.70	-0.82	0.26	0.00	1.55	1.81	1.81
222	manufacture of plastic products	0.0248	98.91	98.91	98.91	101.27	100.44	100.70	100.70	-0.82	0.26	0.00	1.55	1.81	1.81
23	Manufacture of other non-metallic mineral products	0.0660	100.00	100.00	102.29	103.67	104.69	106.17	107.05	0.98	1.41	0.83	4.69	6.17	4.65
239	Manufacture of non-metallic mineral products n.e.c	0.0660	100.00	100.00	102.29	103.67	104.69	106.17	107.05	0.98	1.41	0.83	4.69	6.17	4.65
24	Manufacture of basic	0.1370	95.66	129.33	100.30	89.21	86.78	82.04	79.64	-2.72	-5.46	-2.93	-9.28	-36.56	-20.60

	metals														
241	manufacture of basic iron and steel	0.1370	95.66	129.33	100.30	89.21	86.78	82.04	79.64	-2.72	-5.46	-2.93	-9.28	-36.56	-20.60
31	Manufacture of furniture	0.0108	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
310	Manufacture of furniture	0.0108	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>D</b>	<b>Electricity, gas, steam and air conditioning supply</b>	<b>0.2716</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>103.61</b>	<b>103.61</b>	<b>103.61</b>	<b>103.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.61</b>	<b>3.61</b>	<b>3.61</b>
35	Electricity, gas, steam and air conditioning supply	0.2716	100.00	100.00	100.00	103.61	103.61	103.61	103.61	0.00	0.00	0.00	3.61	3.61	3.61
351	Electric power generation, transmission and distribution	0.2716	100.00	100.00	100.00	103.61	103.61	103.61	103.61	0.00	0.00	0.00	3.61	3.61	3.61
<b>H</b>	<b>Transport and Storage</b>	<b>0.2099</b>	<b>97.46</b>	<b>97.31</b>	<b>97.69</b>	<b>108.10</b>	<b>109.03</b>	<b>108.81</b>	<b>109.04</b>	<b>0.86</b>	<b>-0.21</b>	<b>0.22</b>	<b>11.88</b>	<b>11.82</b>	<b>11.62</b>
49	land transport and tranport via pipeline	0.0962	95.15	95.15	95.15	110.32	110.32	110.32	110.32	0.00	0.00	0.00	15.95	15.95	15.95
492	Other land transport	0.0962	95.15	95.15	95.15	110.32	110.32	110.32	110.32	0.00	0.00	0.00	15.95	15.95	15.95
51	Air transport	0.1105	100.30	100.02	100.73	106.40	108.14	107.72	108.16	1.64	-0.39	0.41	7.82	7.70	7.38
511	Passenger air transport	0.1105	100.30	100.02	100.73	106.40	108.14	107.72	108.16	1.64	-0.39	0.41	7.82	7.70	7.38
53	Postal and Courier activities	0.0032	81.01	80.99	81.05	101.23	101.49	101.40	101.50	0.26	-0.09	0.10	25.29	25.21	25.23
531	Postal activities	0.0027	79.72	79.72	79.72	100.00	100.00	100.00	100.00	0.00	0.00	0.00	25.44	25.44	25.44
532	Courier activities	0.0129	100.46	100.03	101.11	108.68	110.59	109.91	110.63	1.76	-0.62	0.65	10.09	9.88	9.41
<b>J</b>	<b>Information and communication</b>	<b>0.0522</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>95.94</b>	<b>95.94</b>	<b>95.94</b>	<b>95.94</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-4.06</b>	<b>-4.06</b>	<b>-4.06</b>
61	Telecommunication	0.0522	100.00	100.00	100.00	95.94	95.94	95.94	95.94	0.00	0.00	0.00	-4.06	-4.06	-4.06
612	Wireless telecommunication activities	0.0522	100.00	100.00	100.00	95.94	95.94	95.94	95.94	0.00	0.00	0.00	-4.06	-4.06	-4.06

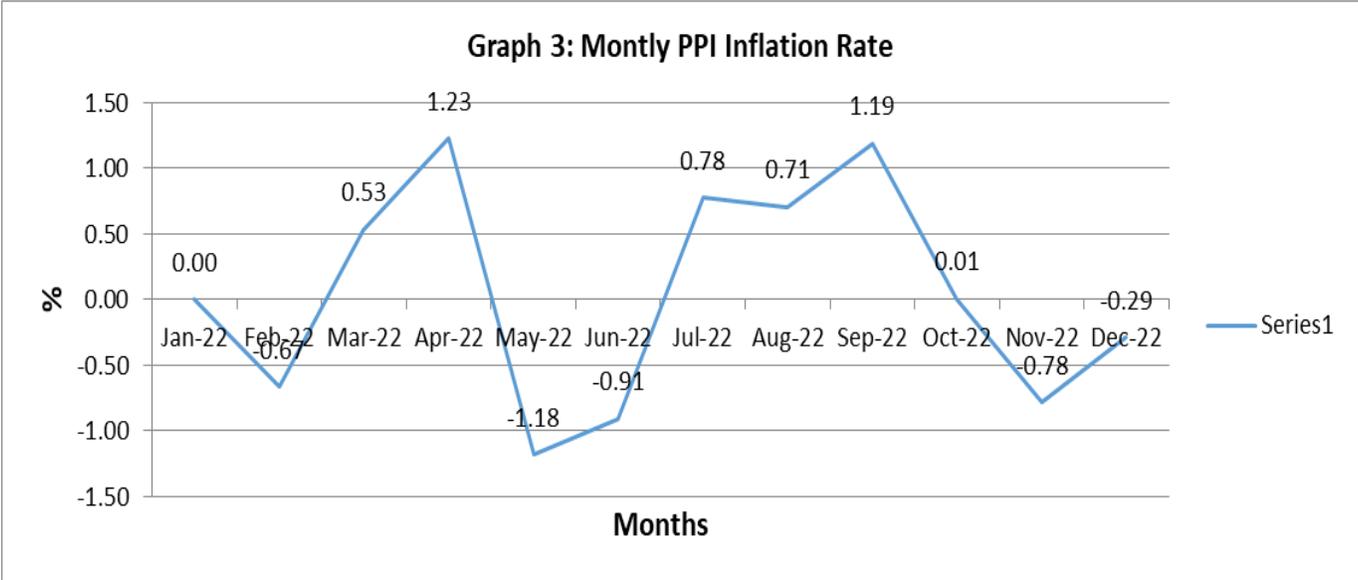
**Graph 1: Time series of monthly Producer Price Index (PPI)**



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



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



## Technical Note

### 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 and 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 January 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)).