



### I. Administrative Set-Up

The Price and Wage Statistics Section of the Bangladesh Bureau of Statistics (BBS) national accounting wing collects monthly retail prices of selected commodities for the consumer price index (CPI). For the 2021 ICP cycle, the deputy director of the Price and Wage Statistics Section was appointed deputy national coordinator, while the national accounting (Price and Wages) wing was the national coordinator.

A core group of 12 officials from the national accounting wing helped implement the 2021 ICP cycle. For ICP price collection, 23 officers and staff from the BBS headquarters and 93 from the field offices participated. The ICP 2021 data collection started in January 2020. After completing the collection of food data for the first quarter (Q1) of 2020, data collection was postponed due to the outbreak of the coronavirus disease (COVID-19) pandemic. It resumed in April 2021, but the pandemic significantly impacted the price data collection.

### II. Use of Existing Infrastructure in Collecting International Comparison Program Data

The Price and Wage Statistics Section—also responsible for the CPI—conducted price collection and data management for the ICP. This approach helped reduce the costs associated with data collection and editing, training, and capacity building. However, due to variations in the ICP and CPI baskets and price collection schedules, the section experienced difficulties fully integrating the ICP into its regular CPI price collection activities. As a result, none of the CPI item prices were used for the ICP.

Housing volume indicators were estimated from the 2021 Sample Vital Registration System, the 2016 Household Income and Expenditure Survey, and the 2022 Population and Housing Census. Government compensation data and other relevant information were obtained from administrative records of the Ministry of Finance. Due to the absence of other relevant surveys, the BBS ICP team conducted special surveys for machinery and equipment and construction for the 2021 ICP cycle.

There were 60 data collectors and 40 supervisors or monitoring officers engaged year-round.

### III. Survey Framework

Like previous ICP cycles, the 2021 ICP price survey for household products covered the entire economy to provide reliable national average prices for the ICP product list. For the selection of samples, Bangladesh was divided into two “sub-universes”: urban and rural areas. Bangladesh has 64 administrative districts, each containing urban and rural areas. The 2021 ICP cycle covered 27 out of these 64 administrative districts. Urban areas include city corporations, municipalities, district towns, and headquarters. For the 2021 ICP price survey, out of the 60 market centers surveyed, 41 were in urban areas, and 19 were in rural areas. In each center, a set of relevant outlets was chosen for price collection. Prices for food and non-alcoholic beverages were collected monthly, while prices for non-food items were collected in the middle of each quarter.

A special housing and rental survey with national coverage was exclusively conducted for the 2021 ICP. The price surveys for machinery and equipment and construction were conducted in divisional cities. Government compensation data and other related indicators were collected from administrative sources.



#### IV. Gross Domestic Product Expenditure Values

For the 2021 ICP cycle, ICP requires GDP expenditure values for 155 basic headings. The national accounting wing of the BBS provided the GDP breakdown in aggregate form and some relevant basic headings for Bangladesh.

Individual household consumption expenditures were estimated through a commodity flow approach based on the 2016 Household Income and Expenditure Survey. This approach broke down household consumption expenditures into basic headings and nonprofit institutions serving households (NPISH). Adjustments were made using the production account of various commodities and other data sources, along with specific conceptual adjustments.

For years when household income and expenditure data were unavailable, the BBS ICP team estimated data by applying the consumption expenditure growth rates from various groups based on the benchmark household income and expenditure. Due to the limited availability of direct data, some adjustments and indirect methods were used to derive reliable expenditure estimates for financial services, NPISH, and other goods and services. NPISH estimates were based on the NPISH surveys conducted in 2010 and 2016. No disaggregated data were available for net purchases abroad.

Government budget documents and administrative records from the Ministry of Finance were used to compile GDP expenditure values broken down into individual and collective consumption of the government. Basic heading level details when not available were estimated.

The BBS ICP team applied the commodity flow method to estimate the components using budget documents from public investments, the 2013–2014 Construction Survey, and the 2019 Survey of Manufacturing Industries for gross fixed capital formation. The Bangladesh Bank and the National Board of Revenue gathered detailed information on imported items.

Imports and exports were based on the International Monetary Fund's Balance of Payments and International Investment Position Manual (sixth edition), compiled by Bangladesh Bank and Bangladesh Customs records.

The national accounts of Bangladesh are compiled for the fiscal year starting from 1 July of the current year to 30 June of the following year. These estimates are converted to calendar-year estimates by apportioning 50% from fiscal years 2020/2021 and the other 50% from 2021/2022 annual estimates. The statistical discrepancy is added to changes in inventories.

The BBS ICP team faced similar limitations in estimating GDP values during the 2021 ICP cycle as encountered during previous ICP cycles. These limitations include the non-availability of estimates for indirectly measured financial intermediation services, changes in inventories, and acquisitions less disposal of valuables.

#### V. Data Validation and Quality Control

The data validation process involved comparing prices from the ICP survey with prices for similar CPI items. Statistical methods, such as the minimum-to-maximum ratio and coefficient of variation, were used to check and validate individual price quotations and to improve the quality of national average prices. The BBS ICP team checked and corrected errors due to data entry mistakes and incorrect units of measurement. Additionally, individual price quotations identified as unusual or outliers were double-checked during field visits and follow-ups. Annual average



prices flagged for further examination during intereconomy validations conducted by the Asian Development Bank (ADB) and discussed in regional data validation workshops were also cross-checked with the field offices for verification and revision, if necessary. The ICP Asia Pacific Software Suite (ICP APSS) was also used for data validation and quality control.

### VI. International Comparison Program Price Collection Tools

The ICP APSS was useful for the BBS ICP team, facilitating efficient data entry, processing, and validation processes. However, the BBS ICP team initially encountered difficulties using it, which the ADB ICP team assisted in resolving.

### VII. Challenges in the International Comparison Program Implementation

Price collectors faced difficulties accessing large companies for specific machinery and equipment items. Additionally, there were discrepancies in units of measurement for some construction items compared to those in the ICP product list, which were corrected at the time of validation discussions with ADB. Matching specifications for housing rental also posed difficulties.

The 2021 ICP cycle was quite challenging due to the lockdowns imposed by the government during the COVID-19 pandemic, which prevented the BBS ICP team from collecting price data. Data collection is usually done via telephone, mobile phone, and in-person visits, but the work plan changed due to lockdowns. On advice from the ADB ICP team, data collection was delayed after Q1 of 2020. The BBS ICP team resumed data collection for food and non-food items in Q2 of 2021 and from April 2021 to December 2021. Seasonal items were unavailable out of season but were still included as data collection activities continued for the year.

### VIII. Lessons Learned and Future Directions

Based on its experience with the 2021 ICP cycle, the BBS has developed the capacity to carry out future ICP rounds, which have become a permanent element of global statistical work and will be conducted more frequently. The national accounting wing of the BBS plans to institutionalize the ICP in its regular work program as follows:

- (i) For the ICP products important in the Bangladesh economy based on the household income and expenditure survey, the agency will try to include several products in its regular price collection survey for CPI compilation. As of 2021, most items and their specifications in the CPI and ICP differ.
- (ii) GDP expenditures for the 155 basic headings and their shares in total GDP will be compiled regularly and included in BBS publications.
- (iii) Data on government compensation will be regularly collected, compiled, and integrated into BBS publications.



(iv) Utilizing shared sample markets for the CPI and the ICP will enhance operational efficiency.

The regional training with international experts in construction and machinery and equipment was useful in understanding product specifications and validating prices. In Bangladesh, finding an engineer or expert on machinery and equipment to consult with BBS was difficult, making this assistance a great opportunity for the participating economies. The BBS ICP team hopes this will continue in the subsequent ICP cycles.

To ensure the smooth conduct of future ICP cycles, the BBS will require technical and financial support to strengthen its activities related to price and national accounts statistics, especially for the work dedicated to the ICP. With the BBS's limited budget for the ICP, the agency faced difficulties complying with government rules on providing allowances for trainees and trainers.

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### Annex 2: List of Members of Core International Comparison Program Team (Bangladesh Bureau of Statistics)

Name	Title	Responsibility
Mohammad Abdul Kadir Miah	Director	National Coordinator
Md. Nazmul Hoque	Deputy Director	Deputy National Coordinator Expenditure GDP
Shapon Kumar	Statistical Officer	Household Price Survey
Mahbubur Rahman	Statistical Investigator	Machinery and Equipment
Md. Faroque Hossain	Thana Statistician	Government Compensation
Azizul Hoque	Office Assistant and Computer Operator	Household Price Survey
Md. Rezaul Haque	Junior Statistical Assistant	Household Price Survey
Ms. Khayrunnaher	Office Assistant Cum-Computer Operator	Construction
Aklima Khanom	Data Entry Control Operator	Housing Rental