

Experience in the 2021 International Comparison Program Implementation



I. Administrative Set-Up

The Price Statistics Division in the National Statistical Office of the Ministry of Statistics and Programme Implementation (MOSPI) oversaw the collection, validation, analysis, and coordination of ICP activities with various agencies. The additional director general—who heads the Price Statistics Division—was nominated as the national coordinator for the ICP, while the deputy director general was designated as the deputy national coordinator. Recognizing the importance of the ICP program, the MOSPI constituted an Expert Committee on the ICP to provide technical advice for ICP activities.

Due to the coronavirus disease (COVID-19) pandemic, data collection for most items in the household consumption sector was conducted in 2022, and prices were backcasted by MOSPI according to the methodology suggested by the Asian Development Bank (ADB).

Various agencies and divisions were involved in the ICP. The Field Operations Division (FOD) of the National Statistical Office was responsible for price collection for all household consumption surveys, housing rental surveys, and construction and machinery and equipment data. The Price Statistics Division conducted training for the FOD and reviewed the data collected by the FOD.

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

The consumer price index (CPI) infrastructure—which includes human resources, markets, and outlets—was utilized for the price data collection of household products. As the specifications of the ICP products were quite different from those of the CPI items, separate questionnaires were used for most household consumption items. Prices were taken from the CPI data for 26 fresh fruit and vegetable items in 2021. For housing rental, a separate survey was conducted for 20 categories of dwellings from 20,311 dwellings in 577 urban markets.

For nonhousehold price surveys data collection, the FOD collected the data on construction and machinery and equipment prices from selected markets. Government compensation data was sourced from administrative documents such as the *Report of the Seventh Central Pay Commission*, Department of Expenditure, Ministry of Finance.

III. Survey Framework

Food (other than 26 items of fruit and vegetables), Clothing, and Footwear

For 382 items in this category, prices were collected from 577 urban and 320 rural markets. These markets were subsets of the CPI markets, which included 1,114 urban markets (located in 310 towns) and 1,181 rural markets. Prices for these 382 items were collected quarterly in 2022 and backcasted by MOSPI using the methodology suggested by ADB.

Fruits and Vegetables

For 26 items of fruits and vegetables, monthly prices from the 2021 CPI data were used, covering 320 rural and 577 urban markets.

**Other Household Items**

Prices for 560 items (excluding the above categories and fast-evolving items) were collected twice a year in 2022 from 165 urban markets. These prices were also backcasted as per the suggested methodology.

Fast-evolving Items

For 23 fast-evolving items, quarterly prices were collected in 2021 from 105 urban markets.

Shops in the selected markets were selected to be representative of the area. The most popular shop in each location was selected first, ensuring that the structured product descriptions (SPDs) were not compromised. For instance, if the most popular grocery shop in a market did not keep a type of rice with a fixed SPD, then the next most popular shop was selected where that SPD was available.

Housing Rental, Housing Volume, Machinery and Equipment, Government Compensation, and Construction

The FOD undertook a housing rental survey and data collection exercise for housing rentals. Data on actual rent for a specified set of dwellings (20 types of dwellings) with detailed SPDs were collected in June 2022 from 20,311 dwellings in 577 urban markets. For machinery and equipment and construction, prices were collected by the FOD from selected markets in eight major towns for July 2021 during the third quarter (Q3) of 2022.

Housing volume, quantity, and quality data were extrapolated from different surveys such as the *Drinking Water, Sanitation, Hygiene and Housing Condition Survey* by the National Sample Survey (NSS) conducted during July to December 2012 and July to December 2018, the 2011 Census, the latest available levels and trends of fertility and mortality data available from the sample registration system, *National Family Health Survey-5* (2019–21) by the Ministry of Health and Family Welfare, and the Multiple Indicator Survey by the NSS conducted in 2020–21.

For construction and machinery and equipment, the FOD collected the prices of items from selected markets. Data on compensation for government occupations were collected from administrative sources such as the *Report of the Seventh Central Pay Commission*, Department of Expenditure, Ministry of Finance.

IV. Gross Domestic Product Expenditure Values

Like the 2017 ICP cycle, fiscal year estimates were converted to calendar year estimates for 2021. Calendar-year control totals for GDP and its main aggregates used the sum of the four quarters of 2021. This included Q4 2020/2021, Q1 2021/2022, Q2 2021/2022, and Q3 2021/2022, since India's fiscal year starts on April 1 and ends on March 31.

In total, GDP expenditure values were estimated for 135 basic headings out of the 155 of the 2021 ICP classification. Individual consumption expenditure by nonprofit institutions serving households is part of household expenditure and was not estimated separately in the official national accounts. The GDP expenditure value estimate for net purchases abroad was estimated separately. The table below provides the number of basic headings estimated by the main aggregate submitted for the 2021 ICP.



Number of Basic Headings Submitted for the 2021 International Comparison Program

Code	Main Aggregates	Estimated	Not Estimated	Total
1100000	Individual Consumption Expenditure by Household	102	8	110
1200000	Individual Consumption Expenditure by NPISHs	-	5	5
1300000	Individual Consumption Expenditure by Government	15	6	21
1400000	Collective Consumption Expenditure by Government	4	1	5
1500000	Gross Capital Formation	12	-	12
1600000	Balance of Export and Import	2	-	2

Source: Ministry of Statistics and Programme Implementation, India

Apart from the estimates available from the national accounts statistics, the following data sources were used for deriving basic heading estimates:

- Annual supply and use table
- Survey of Industries
- Export and Import Data Bank
- NSS 75th Round report on the *Key Indicators on Social Consumption in India: Health*

The mapping of ICP basic headings to national accounts statistics items were mapped in one-to-one, one-to-many, many-to-one, and many-to-many. For many-to-one and many-to-many mappings, ratios were derived from national accounts statistics, the supply and use table, and the NSS report. Where ratios could not be derived, estimates were distributed according to the 2017 ICP basic heading ratios.

Household consumption expenditure estimates were derived for 102 basic headings of household consumption by mapping available estimates of individual consumption expenditure by households. The supply and use table was also used to derive estimates where one-to-one mapping was not available and to distribute the discrepancies among the basic headings. In some cases where detailed data was unavailable, the ratios of the 2017 ICP were used to split the estimate of one item to two or more items. Eight basic headings (package holidays, prostitution, games of chance, veterinary and other services for pets, social protection, maintenance and repair of other major durables for recreation



and culture, combined passenger transport, and other services in personal transport equipment) did not have disaggregated GDP expenditure due to insufficient data or negligible or zero weight.

Government final consumption expenditures were estimated from budget documents and finance accounts of the central government, union, and states using the cost of production approach based on the classification of the functions of government. Estimates for basic headings under the two main aggregates (individual and collective consumption expenditure by government) were derived directly from national accounts estimates, NSS data (75th round), or using the 2017 ICP ratio if detailed data were unavailable. Seven basic headings—housing, other medical products, therapeutic appliances and equipment, out-patient dental services, net taxes on production (1302241, 1304241, and 1401141)—were not estimated due to insufficient data or non-applicability in the economy.

Estimates for basic headings under construction and machinery and equipment were derived using the national accounts statistics estimates, the annual survey of industries, and the export and import data bank.

Exports and imports data were sourced from the Directorate General of Commercial Intelligence and Statistics and the Reserve Bank of India.

Statistical discrepancy was adjusted into various basic headings of individual consumption expenditure by household and change in stock.

V. Data Validation and Quality Control

Detailed training workshops were conducted to prepare for the ICP price surveys. Price collection for the ICP was conducted by experienced CPI price collectors, with close monitoring by supervisors to ensure data quality. Intraeconomy validations—such as the minimum-to-maximum ratio and coefficient of variation—were used to verify individual price quotations. Field inspections were conducted to identify and correct errors arising from data entry mistakes and incorrect units of measurement.

Issues raised during intereconomy regional technical and data validation workshops conducted by ADB were also communicated to the field offices for appropriate action.

VI. Challenges in the International Comparison Program Implementation

Like the experience in the 2017 ICP cycle, the specifications of machinery and equipment items were Eurocentric, with almost 50% of these items not commonly available in India.

Because of the COVID-19 pandemic, price collection for about 942 items was done in 2022. The prices of these items were then backcasted by MOSPI to 2021 using the methodology suggested by ADB.

During the pandemic, the availability of items was restricted as the purchase of essential goods and services was prioritized in 2021.

Specified brands for some items were not common in India, and exact specifications for a few household items were not available.

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VII. Lessons Learned and Future Directions

The ministry will strengthen coordination with relevant government agencies to collect prices of machinery and equipment, construction, and housing volume following ICP requirements. Efforts will be made to strengthen the Price Statistics Division and the FOD to effectively carry out ICP-related work. Considering the importance of the ICP and its endorsement as a permanent global statistical work, the goal is to ensure high quality, consistent, and timely data with simultaneous validation of price data in the succeeding ICP cycles.

Prepared by the MOSPI ICP team; edited by the ADB ICP team and Melanie Kelleher.

Annex 2: List of Members of Core International Comparison Program Team (Ministry of Statistics and Programme Implementation)

Name	Title	Responsibility
Narender Kumar Santoshi	Additional Director General	National Coordinator
Deepti Srivastava	Deputy Director General	Deputy National Coordinator
Prasu Jain	Assistant Director	ICP Team Member
Jose Kurian	Joint Director	ICP Team Member
Monami Mitra	Joint Director	ICP Team Member
Anjali Yadav	Deputy Director	ICP Team Member