

# Integration of ICP with CPI in India

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# Objective of Integration

- ICP has become permanent element of global statistical programme.
- It is now being conducted with a cycle of three years, with middle year of the cycle as a benchmark period.
- There is a requirement of establishing a system which can provide regular flow of prices for ICP at manageable cost.
- Integration of ICP with CPI is a feasible solution to achieve this objective

# Dimensions of Integration

- Convergence of Sample Design of markets of ICP and CPI and deployment of same manpower for price survey
  - Ensures good coverage of markets
  - Reduce costs
  - Provides robust estimate of national average prices
- Integration of baskets of Household Consumable items
  - Regular flow of price data
  - Ensures quality of data
  - Provides additional information on 'Important' and 'Less important' items in ICP basket

# Geographical Coverage

- For administrative control, geographical area of India is divided into 29 States and 7 UTs.
- Each State/UT has been split into one or more National Sample Survey Region
  - An NSS Region is a group of districts, within a State, having similar geographical features and population densities
  - This is a division of a State in such a way that **homogeneity within the Region** and heterogeneity between the NSS Regions are maximized
  - There are 88 NSS Regions in the country.

## State-wise distribution of NSS Regions and markets of CPI

State/UT Code	State /UT Name	No. of NSS Regions	No. of markets in proposed revised series of CPI	
			Rural	Urban
01	Jammu & Kashmir	3	27	30
02	Himachal Pradesh	2	24	16
03	Punjab	2	36	26
04	Chandigarh	1	--	6
05	Uttarakhand	1	26	32
06	Haryana	2	39	30
07	Delhi	1	13	20
08	Rajasthan	5	64	58
09	Uttar Pradesh	5	140	94
10	Bihar	2	74	40
11	Sikkim	1	8	8
12	Arunachal Pradesh	1	16	16

## State-wise distribution of NSS Regions and markets of CPI

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			Rural	Urban
13	Nagaland	1	16	18
14	Manipur	2	18	20
15	Mizoram	1	16	16
16	Tripura	1	9	16
17	Meghalaya	1	14	18
18	Assam	4	48	30
19	West Bengal	5	65	56
20	Jharkhand	2	38	38
21	Odisha	3	50	26
22	Chhattisgarh	3	33	34
23	Madhya Pradesh	6	72	66
24	Gujarat	5	53	72

## State-wise distribution of NSS Regions and markets of CPI

State/UT Code	State /UT Name	No. of NSS Regions	No. of markets in proposed revised series of CPI	
			Rural	Urban
25	Daman & Diu	1	7	6
26	Dadra & Nagar Hav.	1	8	6
27	Maharashtra	6	66	106
28	Andhra Pradesh	3	34	32
29	Karnataka	4	57	60
30	Goa	1	6	18
31	Lakshadweep	1	5	4
32	Kerala	2	29	32
33	Tamil Nadu	4	59	56
34	Puducherry	1	8	12
35	A & Nicobar Islands	1	8	8
36	Telangana	2	23	24
<b>99</b>	<b>All India</b>	<b>87</b>	<b>1209</b>	<b>1150</b>

# Sampling Design for ICP

- NSS Region having 12 or more markets would be kept in the sample.
- Representation from each State would be ensured.
- Some NSS Regions having less than 12 markets would also be included only from leftover small States/UTs.
- Out of 1209 rural and 1150 urban markets of CPI, 947 rural and 846 urban markets would be surveyed for ICP price collection.



## State-wise distribution of NSS Regions and markets of ICP

State/UT Code	State /UT Name	Rural		Urban	
		No. of NSS Regions	No. of Markets	No. of NSS Regions	No. of Markets
01	Jammu & Kashmir	1	14	2	26
02	Himachal Pradesh	1	14	1	10
03	Punjab	2	36	2	26
04	Chandigarh	1	--	1	6
05	Uttarakhand	1	26	1	32
06	Haryana	2	39	1	24
07	Delhi	1	13	1	20
08	Rajasthan	3	46	3	48
09	Uttar Pradesh	4	130	3	86
10	Bihar	2	74	2	40
11	Sikkim	1	#	1	8
12	Arunachal Pradesh	1	16	1	16

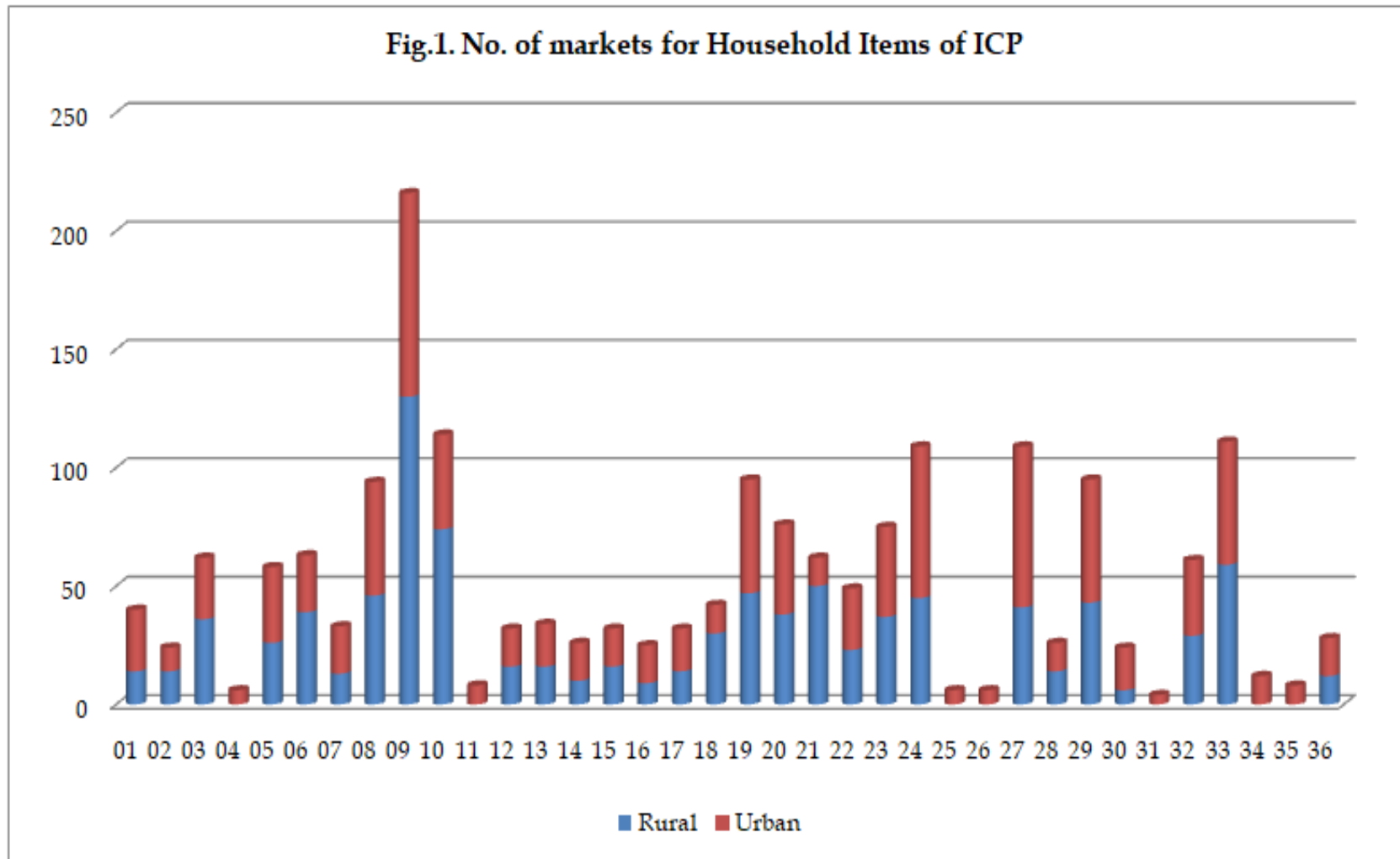
## State-wise distribution of NSS Regions and markets of ICP

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		No. of NSS Regions	No. of Markets	No. of NSS Regions	No. of Markets
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14	Manipur	1	10	1	16
15	Mizoram	1	16	1	16
16	Tripura	1	9	1	16
17	Meghalaya	1	14	1	18
18	Assam	2	30	1	12
19	West Bengal	3	47	3	48
20	Jharkhand	2	38	2	38
21	Odisha	3	50	1	12
22	Chhattisgarh	1	23	1	26
23	Madhya Pradesh	2	37	2	38
24	Gujarat	3	45	3	64

## State-wise distribution of NSS Regions and markets of ICP

State/UT Code	State /UT Name	Rural		Urban	
		No. of NSS Regions	No. of Markets	No. of NSS Regions	No. of Markets
25	Daman & Diu	1	#	1	6
26	Dadra & Nagar Hav.	1	#	1	6
27	Maharashtra	3	41	2	68
28	Andhra Pradesh	1	14	1	12
29	Karnataka	2	43	2	52
30	Goa	1	6	1	18
31	Lakshadweep	1	#	1	4
32	Kerala	2	29	2	32
33	Tamil Nadu	4	59	3	52
34	Puducherry	1	#	1	12
35	A & Nicobar Islands	1	#	1	8
36	Telangana	1	12	1	16
<b>99</b>	<b>All India</b>	<b>50</b>	<b>947</b>	<b>52</b>	<b>946</b>

# Distribution of number of markets for ICP survey



# Integration of ICP and CPI Basket

- Issues:
  - SPDs of ICP and CPI items are not common, except for fruits and vegetables.
  - Even if some of the SPDs of CPI basket is identical to those of ICP basket, this would not hold true for all the markets of all different States.
  - There are about 930 household items/products in ICP. Out of these, about 40 items fall in the category of fruits and vegetables.
- Solution:
  - Prices of fruits and vegetables collected in each market for CPI would be used for ICP baskets
  - Remaining household items of ICP basket would be divided into 12 parts ( $890/12=74$  items) and added to CPI baskets of different markets within an NSS Region
  - If number of markets in a NSS Region is more than 12 then the items falling in the category of Food, Clothing and Footwear (about 415 to 420 items) would be distributed in the remaining markets (other than the aforementioned 12) of the respective sector.
- No. of Quotations
  - Fruits and Vegetables: 1209 Rural 1150 urban (equal to the number of CPI markets)
  - Food, Clothing and Footwear (other than fruits and vegetables): more than 50 rural and 52 urban markets
  - Items other than Food, Clothing and Footwear: 50 rural and 52 urban markets

# Method to prepare different sets of 75 items

- Out of 155 Basic Headings (BHs), 104 belong to household sector:

COICOP Category	COICOP Category Description	No. of Basic Headings
01	Food and Non-Alcoholic beverages	29
02	Alcoholic beverages, tobacco and narcotics	5
03	Clothing and footwear	5
04	Housing, water, electricity, gas and other fuels	8
05	Furnishings, household equipment and routine household maintenance	13
06	Health	7
07	Transport	13
08	Communication	3
09	Recreation and culture	13
10	Education	1
11	Restaurants and hotels	2
12	Miscellaneous goods and services	5
	<b>Total</b>	<b>104</b>

# Method to prepare different sets of 75 items

- Distribution of products of ICP 2017 under different categories of COICOP:

COICOP Category	COICOP Category Description	No. of Basic Headings
01	Food and Non-Alcoholic beverages	299
02	Alcoholic beverages, tobacco and narcotics	18
03	Clothing and footwear	92
04	Housing, water, electricity, gas and other fuels	17
05	Furnishings, household equipment and routine household maintenance	125
06	Health	99
07	Transport	86
08	Communication	33
09	Recreation and culture	82
10	Education	7
11	Restaurants and hotels	27
12	Miscellaneous goods and services	43
	<b>Total</b>	<b>928</b>

## Method to prepare different sets of 75 items

- All categories of COICOP would be proportionately represented in each set of 75 items
- All items of a particular BH would be surveyed together in the same market
- Deviations of SPDs of CPI items from that of ICP items would be examined market wise.
- If there is difference in terms of variety, brand, quality, model etc. then items of both the basket would be considered not-common.
- If deviation occurs due to difference in unit and quantity, then items of both the baskets would be considered as approximately common.
- If approximately common items are found in majority of the markets, then that item would be classified as important item in ICP basket



# House Rent

- CSO has classified stock of rented dwellings into four categories:
  - One Room Set;
  - Two Room Set;
  - Three Room Set; and
  - Four and more Room Set.
- Rented dwellings are selected in the sample in each State from each category proportionately.
- While carrying out the rental survey, additional information of different characteristics viz. area, basic amenities, period of tenancy etc. are also collected.
- Using this information, national average rent would be computed for different categories of houses of ICP basket.
- Unlike other household consumable items, additional rented dwelling would not be added to the CPI sample

# Conclusion

- Subset of CPI markets, covering each State/UT of the country, would be used for ICP Price Survey.
- Prices of Fruits and Vegetables, collected for CPI, would be used for ICP because of having common SPDs
- Other items would be divided into 12 parts and added to CPI baskets of different markets within a homogeneous (in terms of geographical features and population densities) region.
- Sub-set of rent data collected for CPI would be used for respective categories of Houses in ICP.
- Price/rent data would be collected and scrutinized monthly along with CPI.
- This would capture month to month price variations and give better estimate of annual average for ICP.