

Index of Industrial Production (IIP)

Item No.	Concept Name	Details
1	Contact	
1.1	Contact Organisation	National Statistical Office (NSO), Ministry of Statistics & Programme Implementation (MoSPI)
1.2	Compiling Agency	Economic Statistics Division (ESD)
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2	Statistical Presentation and Description	
2.1	Data description	Index of Industrial Production (IIP)
2.2	Classification system	The current series of IIP (base 2011-12) follows the National Industrial Classification 2008 (NIC-2008) which is based on ISIC-Rev 4 published by UNSD.
2.3	Sector coverage	UNSD guidelines state that IIP is to be compiled for activities in ISIC Rev. 4 Sections B, C, D and E, i.e. (i) Mining and quarrying, (ii) Manufacturing, (iii) Electricity, Gas, Steam and Air conditioning supply and (iv) Water supply, Sewerage, Waste management and Remediation activities, due to constraints of the data availability and other resources, the index is being compiled with (i) Mining, (ii) Manufacturing and (iii) Electricity as scope of All India IIP. In the current base year (i.e. 2011-12), the index covers 839 items clubbed into 407 item groups under three sectors i.e. Mining (29 items clubbed into 1 item group), Manufacturing (809 items clubbed into 405 item groups) and Electricity (1 item) with weights of 14.37%, 77.63% and 7.99% respectively.

2.4	Statistical concepts and definitions	<p>Concept: Index of Industrial Production (IIP) is an abstract number, the magnitude of which represents the state of production of items individually and collectively as industry group for a given period of time. The inputs and technology used in the production of items under reference may or may not be the same. Strictly speaking, the IIP is a short-term indicator of industrial growth for the organized sector. This indicator is of paramount importance to the Government for planning purposes and is also being extensively used by various organizations, including Industry, Research, and Academic Institutions.</p> <p>Definition: The Index of Industrial Production is a quantitative index; the production of the items being expressed in physical terms. The Index is compiled by taking into account the quantities of items produced during the current month, vis-à-vis the average monthly production in the base year.</p>
2.5	Statistical unit	<p>The International Recommendations on IIP (IRIIP), 2010, of the United Nations Statistics Division, mentions establishment i.e. factories, mills etc., as the statistical unit for the purposes of compiling an IIP because it is the most detailed unit for which the range of data required is normally available. The data gathered, in order to be analytically useful in an IIP context, need to be grouped according to such characteristics as kind of activity, geographical area and size, and this is facilitated by the use of the establishment unit. The data for compiling all India IIP is collected at establishment i.e., factories/units by the 14 source ministries/departments/organisations and consolidated data for the items in the item basket of IIP is furnished to ESD, MoSPI for index compilation.</p>
2.6	Statistical population	<p>In the current base year (2011-12) there are 407 item groups.</p> <p>Out of the 407 item groups in IIP, data for 56 item groups is received on a census basis, i.e., all the manufacturing units within the sector provide monthly data for IIP.</p> <p>For the remaining 351 item groups, monthly output data are received from a panel of factories.</p> <p>Panel of factories for the remaining 351 item groups is selected from Annual Survey of Industries (ASI).</p>
2.7	Reference Period	<p>The reference period for the current Index of Industrial Production in India is 2011-12, when the index=100.</p>
2.8	Data Confidentiality	<p>The frame of factories for IIP is derived primarily from the frame of Annual Survey of Industries (ASI), which is governed by the provisions of the Collection of Statistics Act, 2008. In accordance with rules 9 to</p>

		<p>14 of Chapter III under the Collection of Statistics Act, 2008, identity of individual respondents is not disclosed directly/ indirectly.</p> <p>Confidentiality of identification particulars of respondents is a general principle embodied in the National Data Dissemination Policy followed by the Union Government of India.</p>
3	Institutional Mandate	
3.1	Legal acts and other agreements	<p>At present, MoSPI does not exercise any legal authority for statistical reporting as the primary production data for IIP are collected by various administrative ministries/ departments/ organisations. Production data on majority of IIP items are collected by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry from individual manufacturing establishments as per rules under the Industries (Development and Regulation) Act, 1951. Similarly, mineral production data are collected by the Indian Bureau of Mines (IBM), Ministry of Mines as per rules under the Mineral Conservation and Development Rules (MCDR), 1988 and further amended in 2016. Other legal instruments in use are The Electricity Act, 2003 for Electricity data, Vegetable Oil Product Production and Availability (Regulation) order, 2011 for production of Edible Oils, Vegetable Oils and Fats, Tea (Marketing And Control) Order 2003 for tea production data, Essential Commodities Act 1955 for sugar production data, Fertilizer Control Order (Under Essential Commodities Act) 1985 for fertilizer production, Oilfields (Regulation & Development) Act, 1948 for production of Crude Oil and Natural Gas, Industries (Development & Regulation) Act, 1951 for production of Petroleum Products, Colliery Control Rules, 2004 under MCDR Act for production of coal.</p>
3.2	Data sharing	Data is either available on website or shared through correspondence.
3.3	Release policy	<p>The Index is released at the same time to all users Through press release on PIB Through MoSPI website</p> <p>No one including other government agencies, are supplied with data in advance, i.e. before the official release. An embargo advisory is issued along with press notification at the time of release of IIP results every month to prevent misuse of information prior to official release.</p>

3.4	Release calendar	On 12 th of every month (previous working day if 12 th is a holiday) - with a lag of six weeks
3.5	Frequency of dissemination	Monthly
3.6	Data access	<p>The Press Note on Quick Estimates of the Index of Industrial Production and Use-based Index (Base 2011-12 = 100) is available in Hindi and English, free of charge. IIP data (production index data published in the press release and the time series data) is available on MoSPI website at: https://www.mospi.gov.in/</p> <p>Item level data for IIP is made available to all registered users free of cost through website of MoSPI. The data can be obtained by registering on MoSPI's website using the following link at http://microdata.gov.in/nada43/index.php/auth/login/?destination=catalog/%20148/get_microdata</p>
4	Quality Management	
4.1	Documentation on methodology	<p>Working Group report for IIP base revision from 2004-05 to 2011-12 regarding methodology of the current series is available on the website of MoSPI. The link for the same is given below: https://www.mospi.gov.in/sites/default/files/publication_reports/Report_of_WG_on_IIP28apr17.pdf</p>
4.2	Quality documentation	IIP follows the guidelines mentioned in UNSD document of International Recommendations for Index of Industrial Production (IRIIP), 2010.
4.3	Quality assurance	<p>i. Two-point compilation later reconciled</p> <ul style="list-style-type: none"> • IIP is compiled by two different persons • The data is reconciled after compilation • This minimizes chances of error • Similarly, weighted response rate is calculated at the aggregated level <p>ii. Multi-layer checks and reconciliation with other indicators</p> <ul style="list-style-type: none"> • The results are checked at different levels • The results are compared with other indicators like ICI, PMI, etc.
4.4	Quality assessment	
5	Accuracy and Reliability	

5.1	Sampling error	NA
6	Timeliness	
6.1	Timeliness	Within six weeks (42 days) after the end of the reference month.
7	Coherence and Comparability	
7.1	Comparability over time -	The time series data is maintained for comparability over time.
7.2	Coherence	IIP is compiled following standard international practices.
8	Statistical Processing	
8.1	Source data type	The data for compilation of IIP is furnished by 14 data source agencies located in various Central Ministries/ Departments/ Subordinate Offices of the Government of India which, in turn, collect data from their primary sources (factories).
8.2	Frequency of data collection	Monthly
8.3	Data collection method	<p>Primary level data is collected by 14 source agencies of IIP (Ministries/Departments/Organisations). Source agencies provide consolidated data at item group level to MoSPI. The data is collected both in quantity and value terms. Data for 109 item groups is collected in value terms deflated using WPI. Each month data is collected for 3 periods.</p> <p>Reference month for Quick estimate Previous month of the reference month for 1st revision Third previous month of the reference month for final estimate</p> <p>Source agencies estimate missing data as per broad guidelines provided by MoSPI. Working Group on IIP under the Chairmanship of Dr. Sumitra Chaudhuri (2011-12 series), Former Member, Planning Commission, recommends 3 methods for estimation of missing data</p> <p>Repeat previous month's production Average of last three month's production Repeat previous year's corresponding month's production</p> <p>Some source agencies follow their own methods of estimation</p>
8.4	Data validation	<p>Validation of data received is made at two stages.</p> <p>At the first stage, the source agencies on receipt of data from establishments, validate the data quality.</p> <p>The second stage of validation exercise is conducted</p>

		<p>by the Economic Statistics Division. Under validation checks, variation statements are prepared vis-à-vis previous month, previous year same month, and variation in respect to the first revised production and final revised production.</p> <p>Validation Criteria based on variation limit</p> <p>Current month Vs Previous month (20%)</p> <p>Current month Vs Previous year same month (30%)</p> <p>First revised Vs Quick estimate of same month (20%)</p> <p>Final revised Vs First revised of same month (10%)</p> <p>Validation criteria based on time series production data</p> <p>Above the maximum value of last 12 months production</p> <p>Below the minimum value of last 12 months production</p> <p>Validation check - post compilation</p> <p>Contributing of each item group is calculated</p> $C_i = \{W_i * (I_{i(t)} - I_{i(t-12)})\} / I_{i(t-12)}$ <p>[W_i is the weight of the i^{th} item group; I_i is the index of i^{th} item group; t is the time period]</p> <p>Top twenty positive and negative contributing item groups are identified and Item groups sent to the respective source agencies for confirmation.</p>
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8.5	Data compilation	<p>IIP is computed from the monthly output data (reported by the factories in the panel) in terms of physical output quantities or values of output. In the 2011-12 series, 109 item groups with an aggregated weight of 19.2 percent are collected in value terms.</p> <p>Rest of the items are collected in volume terms for compilation of IIP.</p> <p>Output of item groups are first computed by aggregating the output received from different factories/units identified for that particular item group. Output of item groups reported in value terms, are first deflated by appropriate WPI before calculating production relatives.</p> <p>Production relative is defined as the ratio between the current period and base period of the volume of output.</p> <p>The elementary-level indices for each item group, is then computed as the ratio of the aggregated output (or deflated value) for that item group divided by the corresponding aggregate output (or deflated value) in the base period.</p> <p>The elementary-level indices are aggregated at NIC 4-digit levels using the Laspeyres Index formula with GVO of the item groups as the weights of the item-groups.</p> <p>The aggregations at higher-levels are done by Laspeyres index with GVA-based weights of the NIC categories.</p> <p>Similarly, Laspeyres index formula is used for compiling sectoral level index and finally General Index. The sectoral weights have been derived from National Accounts Statistics (NAS).</p> <p>The IIP is also compiled and presented for a different grouping of the items according to an accepted <i>use-based classification</i> (UBC). The six UBCs in the 2011-12 series of IIP are "Primary goods", "Capital goods", "Intermediate goods", "Infrastructure/Construction goods", "Consumer durable goods" and "Consumer non-durable goods".</p>
9	Metadata Update	
9.1	Metadata last posted	June 13 th , 2022
9.2	Metadata last update	June 13 th , 2022