



GOVERNMENT OF GOA

**REPORT ON
INDEX OF INDUSTRIAL PRODUCTION IN GOA DURING -2018-19
(BASE YEAR 2011-12)**



ELECTRICITY SECTOR



MINING SECTOR



MANUFACTURING SECTOR

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PREFACE

The Index of Industrial Production measures in the behavior of Industrial Production. It helps in analyzing structural changes that are taking place in the sector over a period of time with reference to the base year.

Since, mining and electricity are both important activities along with manufacturing sector in the State, separate indices have been compiled for these sectors.

The Base year for the construction of the series of Index Numbers of Industrial Production in Goa has been changed from time to time. The present change in the base year to 2004-2005 to 2011-12 is in accordance with the guidance of Central Statistical Office, ESD, MOSPI, Government of India.

This is the thirty seventh report on Index numbers since inception, and the fifth in the revised series with the base year 2011-2012.

It is hoped that, this publication would be useful to those who are involved in the developmental planning of industrial sector. The co-operation extended by the industrial units in Goa, by supplying data is gratefully acknowledged. We are thankful to the staff of Industrial Statistics wing, Central Statistical Office, ESD, Government of India, for providing valuable guidance from time to time. Also, our sincere thanks to Indian Bureau of Mines, Nagpur and Central Electricity Authority for making available data on the website for both sectors.

I wish to place on record my appreciation for all the officers and staff members of NSS Division for their dedicated efforts in bringing out this publication. I also place on record my appreciation for factory management who had extended their all Co-operation to our office in submitting the data as per our requirement.

Suggestions for improvement in publication are most welcome.

Place: Porvorim
Date: 06/10/2021

(Dr. Y. Durga Prasad)
DIRECTOR

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Chapter -1

INTRODUCTION

1.1 BACKGROUND

Industrial Sector plays a vital role in the economic development of a region. The development in the industrial sector is measured by means of a tool called “Index of Industrial Production” (IIP). This statistical device is one of the most important macro-economic indicators, indicating the magnitude of industrial output over a given period compared to the reference period. The growth in production is measured with reference to the base period to assess the performance of the industrial sector. The index is used extensively in policy planning by the Government in public sector as also by other Organizations and Researchers, Industrialists, Economists, Administrators, etc.

The Directorate of Planning, Statistics and Evaluation took up the task of constructing the Index of Industrial Production (Mining and manufacturing sector) from the year 1971 onwards with base year 1970 = 100. The index series was based on the information collected from factories registered under the Factories Act, 1948 and functioning within the jurisdiction of Goa. Subsequently, the base year was changed from 1970 to 1975 as a result of big strides taken by the industrial sector in Goa.

Further, as per the guidelines received from the Central Statistical Office, ESD, Mospi, New Delhi, the base year was revised to 1980-81=100 by covering more items in the basket to reflect the industrial growth more adequately. The change of base year from 1980-81=100 to 1993-94=100 for providing a comparable state level Index of Industrial Production was initiated by Central Statistical Office, ESD, MoSPI, New Delhi, as per the assurance given by the Prime Minister to the Parliament in April 1993. Under the “Comparable state level Index of Industrial Productions”, all the states in India adopt a common base year with common methodology for a uniform compilation of Indices.

In order to maintain synchronization with the base year of all India IIP and capture structural changes in the industrial sector in the State/UT's the base year of Comparable State level IIP's has been shifted from 2004-2005=100 to 2011-12=100.

This is the 37th report in the series since its inception in the state and the 5th in the revised series of 2011-12. This issue covers the indices for the year 2018-19 for Electricity, Mining as well as Manufacturing sectors along with combined indices for all the three sectors.

1.2 SCOPE AND COVERAGE

The scope of Index of Industrial Production has been confined to Electricity sector, Mining sector and Manufacturing sector. The manufacturing sector is restricted to the industries registered under section 2(m) (i) and 2 (m) (ii) of the factories Act, 1948 and are functioning within the jurisdiction of the Goa state.

1.3 COLLECTION OF DATA SOURCE

- 1) The monthly Electricity Generation figures (power plant wise) for computation of Electricity Index is provided by Central Electricity Authority (CEA).
- 2) The mineral data for computation of mining index is obtained from the website of Indian Bureau of Mines (IBM), Nagpur.
- 3) The manufacturing index computed is based on the month-wise production data collected Under the provision of the Collection of Statistics Act, 2008 (7 of 2009) and Rules framed there under in 2011, from the selected factories by issuing letters from this Directorate. Delayed cases are contacted over telephone or by personal visits of the staff of this Directorate.

1.4 BASE YEAR

The base year for calculation of the Index Numbers of Industrial Production in respect of Electricity, Mining and Manufacturing sector is 2011-12. It was revised from the earlier base of 2004-2005 as per the guidelines of the Central Statistical Office, ESD, MoSPI, New Delhi.

1.5 Weight Distribution in Manufacturing Sector

The CSO, NSSO, MoSPI Kolkata has furnished new weighting diagram and item basket of 78 along with list of 80 selected factories and 61 as reserved factories for Manufacture Sector . Further, as per direction of CSO, list of 5 factories for each item has been prepared with consultation of the Chief Inspectorate of Factories and Boilers, in the State of Goa.

In manufacturing sector, an exercised has been made with 356 to cop up 5 factories for each item as per the guidelines of the MoSPI given for State IIP frame in the item basket. After thoroughly investigation with this factory as regards to the closer of factories, change of production and non-manufacturing items in the state 205 factories panel has been made. Accordingly, weight has been also re-distributed in to the available items as mention below:

- 1) **Manufacturing of Textile:** Weight of Knitted Fabrics, Cloth Cotton as not manufactured in the state has re-distributed to other 18 Manufacturing Sub-sector in proportion to the percentage of weight of Sub Sector.

- 2) **Manufacturing Food Products:** Coconut oil refined was not manufactured of which weight has been re-distributed within 7 items from same sub-sector of food products.
- 3) **Manufacturing of Pharmaceuticals, Medicinal Chemical and Botanical Products:** - Injection pump for diesel engines, weight has re-distributed within 11 items in that particular manufacturing sub- sector.
- 4) **Manufacture of Computer, Electronic and Optical Products:** Computer and Air Combat Stimulators weight has re-distributed within 5 items in that same manufacturing sub-sector
- 5) **Manufacture of Electrical Equipment Products:** Acrylic panels and bulbs glass weight has re-distributed within 6 items in that particular manufacturing sub-sector
- 6) **Other Manufacturing products:** Medical, Surgical Dental or Veterinary Furniture, Barbers chairs and similar chairs having rotating as well as both reclining and elevating movements, weight has been re-distributed within 2 items in that particular manufacturing sub-sector.
- 7) Grouping of 11 items in to 6 items group due to non-availability of no. of factories and production data to cop up with 5 factories list in the Manufacturing Sector.

Accordingly, 64 item baskets for Manufacturing Sector has been finalized on re-distributing of weights.

1.6 ESTIMATION PROCEDURE

The Index of Industrial Production in new series is with base 2011-12 has been computed by using laspeyre's formula. It is a simple weighted arithmetic mean as given below

$$I = \frac{\sum W_i R_i}{\sum W_i}$$

Where,

I -the Index of Industrial Production

R_i -the production relative for the i-th item and

W_i - the corresponding weight

Chapter 2

Index of Industrial Production

2.1 Introduction

Central Statistical Office, NSSO, MoSPI Kolkata gives guidelines to the State to prepare report on index of Industrial Production for three major sector namely Electricity, Mining & Manufacturing. Data for compilation of IIP is sourced from website of Indian Bureau of Mines, Ministry of Mine for Mining Sector, Central Electricity Authority, Ministry of Power for Electricity Sector. For manufacturing sector data collected from 205 factories in the state of Goa. Weight distribution is done as per the base year 2011-12 as given below at graph 2.2

2.2 Graph shows weight distribution as per base year 2011.12 for three major sector for calculation of Index for the year 2018-19

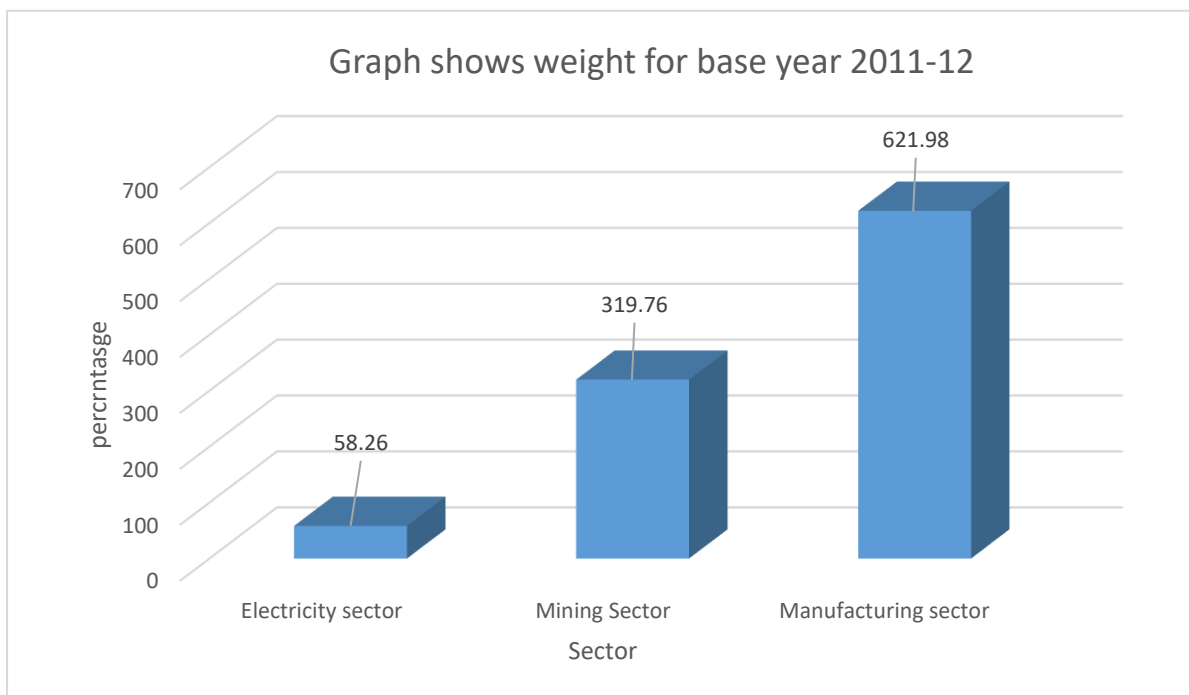


TABLE NO. 1

Table shows Annual Index of Industrial Production for the year 2015-16, 016-17, 2017-18 & 2018-2019

(BASE 2011-12 = 100)

Sr. No.	Item Code (NIC)	Item Description	Weight	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7	8
1	3510	Generation of Electricity	58.26	0.00	0.00	0.00	0.00
Total	(ELECTRICITY SECTOR) A		58.26	0.00	0.00	0.00	0.00
1	0710	Iron Ore	318.76	0.01	0.04	0.05	0.00
2	0729	Manganese Ore	0.1835	0.00	0.00	0.00	0.00
3	0729	Bauxite	0.8201	366.81	0.00	5.17	1.55
Total	(MINING SECTOR) B		319.76	366.82	0.04	5.22	1.55
		10. Manufacture of food Products					
1	1020	i) Fish Meat, Fresh "Fish Frozen or otherwise	2.3178	90.68	110.92	85.79	81.21
2	1050	ii) Milk skimmed or pasteurised, non-flavoured	0.6976	120.38	116.46	102.38	96.13
3	1050	iii) Ice cream	0.2252	142.04	139.77	145.07	128.49
4	1061	iv) Wheat flour	0.0397	68.50	100.04	132.14	125.59
5	1071	v) Cashew nut and shelled	5.0684	85.64	61.16	70.53	76.69
6	1073	vi) Chocolate and other food preparation containing cocoa(except sweetened coca	20.3618	82.16	90.01	96.91	122.29
7	1074	vii) Noodles	14.7195	39.15	57.20	55.87	66.18
		11.Manufacture of beverage					
8	1103	i) Alcoholic Beverages	5.3255	94.13	89.98	98.69	113.15
9	1104	ii) Soft drink carbonated beverage other than soda water	2.2168	113.10	139.30	246.64	286.29
		17. Manufacture of Paper and Paper Products.					
10	1702	i) Corrugated paper board	0.6023	72.81	66.07	87.93	90.80
11	1702	ii) Boxes, Corrugated sheets	0.4563	108.52	105.95	109.04	102.59
12	1702	iii) Cardboard Boxes	0.6743	246.45	284.03	264.68	241.24
		18.Printing and reproduction of recorded media					
13	1811	i) Newspaper and daily	3.5089	86.11	80.23	69.66	63.54
		19.Manufacture of Coke, refined petroleum products					
14	1920	i) Liquidified Petroleum gas (LPG)	2.6101	107.05	114.26	118.39	125.36
15	1920	ii) Petroleum coke calcined	1.0373	102.27	84.35	119.84	114.07

20 .Manufacture of Chemicals and Chemical products							
16	2012	i) Urea	16.6930	109.34	105.94	118.33	111.87
17	2023	ii) Soap toilet (excluding baby soap	5.6795	0.11	0.09	0.08	0.05
18	2023	iii) Toothpaste, non-medicated	14.8010	105.67	97.98	88.95	97.70
		21. Manufacture of Pharmaceuticals medicinal Chemical and botanical Products					
19	2100	i) Doxycycline / Minocycline	8.2712	76.75	82.97	44.50	80.05
20	2100	ii) Metronidazole with/ out, norfloxacin	3.8514	135.81	122.38	125.74	1.88
21	2100	iii) Vitamin E (tocophero) And Other vitamin in tablet or injectable form	16.1011	1.66	1.92	1.78	2.16
22	2100	iv) Anti cancer and Anti Malaria	68.7687	40.13	119.06	38.35	82.42
23	2100	v) Anti-diabetic drugs excluding insulin (metformin, pioglitazone, glimepiride etc)	5.2153	182.48	192.52	192.17	191.58
24	2100	vi) Anti hitamine,antistine antitussive (codeine ect)prep	10.1045	64.93	39.16	42.83	46.97
25	2100	vii) Lisinopril/ramipril/enalapril maleate a.c.e inhibitor	6.2105	2.08	2.14	1.92	1.47
26	2100	viii) Ointments,allopathic	11.6818	509.93	476.32	860.25	1249.59
27	2100	ix) Capsules Plastic	5.4854	787.02	1195.10	580.46	529.22
		22.Manufacture of Rubber and Plastic products					
28	2211	i) Tyre/tube other	36.2123	124.81	122.82	127.29	131.31
29	2211	ii) Flaps rubber	10.6678	83.57	87.08	109.42	152.76
30	2220	iii) Container plastic	15.7592	135.30	132.57	130.18	124.83
31	2220	iv) Plastic bottle caps	34.3406	61.70	58.98	69.97	79.06
		23.Manufacture of other Non-metallic mineral products					
32	2394	i) Cement, Portland	3.8480	80.89	78.31	98.14	83.88
33	2395	ii) Other article of cement, concrete or artificial	3.9312	77.89	77.70	40.90	44.40
		24.Manufacture of Basic Metals					
34	2410	i) Ingots iron	231.5327	73.19	66.96	17.92	51.84
35	2420	ii) Manganese dioxide	9.6799	44.87	55.11	67.79	88.76
36	2420	iii) Aluminum tube, pipes aloyed	3.1613	108.50	113.27	112.73	123.55
37	2431	iv) Cast iron	0.5146	125.73	119.26	82.32	124.13
38	2431	v) Valves, industrial	0.1715	89.04	65.40	85.81	66.45
		25.Manufacture of Fabricated metal products, except Machinery and equipments					
39	2511	i) Hume pipes	0.2254	168.08	113.91	89.31	65.93
40	2511	ii) Buckets, shovelsgrabs and the like	0.1840	332.21	497.32	375.31	639.09
41	2592	iii) Artificial graphite, colloidal or semi-colloidal graphite preparations based on graphite or other	0.5462	1.52	0.51	0	0
42	2593	iv) Saw & Saw blades	2.4675	46.00	46.52	35.61	7.86

26.Manufacture of computer, electronic and optical							
43	2610	i) Capacitor, metalized poly film	2.5425	344.24	354.35	384.57	387.15
44	2620	ii) Computer Peripherals	0.2162	52.17	48.40	31.24	23.28
45	2630	iii) Toys plastic moulded other	0.4768	124.57	222.25	276.83	240.45
46	2651	iv) Instruments and apparatus for measuring or checking the flow, level, pressure or their variables of liquids or gases, except	1.8160	128.28	40.58	43.74	60.16
47	2651	v) Machines and appliances for testing the mechanical properties of materials	0.7136	39.64	28.47	29.70	31.55
		27.Manufacture of Electrical equipment					
48	2710	i) Centrifuge motors or Electrical motors	1.3940	108.13	162.24	183.50	165.05
49	2710	ii) Parts of electricity distribution of control apparatus	0.3756	220.93	185.94	508.45	582.07
50	2731	iii) Optical fibre cables made up of individually sheaterd	5.7226	160.37	212.52	242.06	230.49
51	2750	iv) Electric Fans and ventilating or recycling hoods of the domestic type	2.1696	143.57	150.72	156.04	173.12
52	2790	v) Fabricated metal product	0.1223	93.31	104.10	106.74	99.75
53	2790	vi) Instruments and apparatus(except cathode-ray oscilloscopes and oscillegraphs) for telecommunications	0.1109	660.72	274.66	156.99	128.34
		28.Manufacture of Machinery & equipment					
54	2811	i) Internal combustion piston engines other	1.1753	65.80	55.14	939.71	102.15
55	2813	ii) Concrete pump	1.3393	80.65	101.54	117.80	138.69
56	2821	iii) Washing machine/laundry machine	4.2007	203.92	245.99	309.10	335.21
		29.Manufacture of Motor Vehicles, trailers and Semi-Trailers and semi trail					
57	2920	i) Body for other vehicle	3.1336	23.48	19.19	14.14	10.00
58	2930	ii) Seat for motor vehicle	0.2123	148.76	163.03	153.89	116.45
		30.Manufacture of other Transport equipment					
59	3011	i) Other vessels for the transport of goods and other vessels for the transport	2.7576	50	0	0	0
60	3011	ii) Barges excl. hopper	2.3129	10	12.5	12.50	10.00
		31.Manufacture of Furniture					
61	3100	i) Chair steel office	0.1620	672.51	795.56	152.35	210.12
62	3100	ii) Table & desks iron/steel	0.1380	6.25	9.14	6.23	9.73
		32.Other Manufacture					
63	3250	i) Lens, ophthalmic	0441	128.61	178.86	172.77	185.48
64	3250	ii) Toothbrush	3.8759	147.47	159.22	150.18	172.30
Total (Manufacturing Sector) C			621.98	91.82	101.76	80.42	106.31

TABLE NO. 2
MONTHLY INDEX OF INDUSTRIAL PRODUCTION
SECTOR LEVEL AND COMBINED MONTHLY INDICES FOR THE YEAR 2018-19
(BASE 2011-12=100)

Sl. No.	Industrial Sector	Weight	2018-19											
			April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Electricity Index	58.26	0	0	0	0	0	0	0	0	0.00	0	0	0
2	Mining Index	319.76	0.00	0.02	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
3	Manufacturing Index	621.98	96.23	104.29	96.17	108.49	113.17	103.02	116.25	100.53	91.52	124.43	105.75	115.83
Combined Index		1000.00	59.86	64.87	59.82	67.49	70.39	64.08	72.30	62.53	56.92	77.39	65.77	72.05

GRAPH SHOWS MONTHLY SECTOR WISE INDEX FOR THE YEAR 2018-19



**LINE GRAPH SHOWS MONTHLY COMBINE INDEX OF INDUSTRIAL
PRODUCTION FOR ELECTRICITY , MINING, AND MANUFACTURING
SECTOR FOR THE YEAR 2018-19**

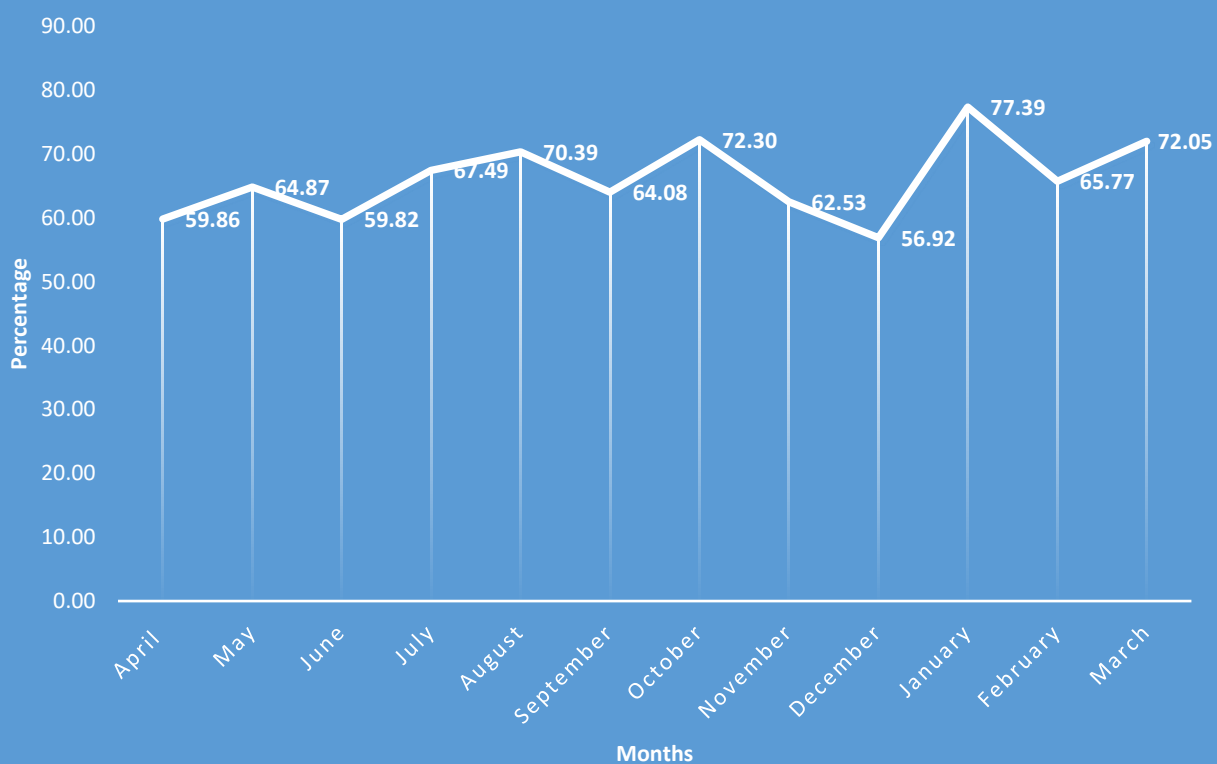


TABLE NO. 3
CAMPARISON OF INDEX OF INDUSTRIAL PRODUCTI SECTOR LEVEL AND
COMBINED ANNUAL INDICES

(BASE 2011-12=100)

Sl. No.	Industrial Sector	Weight	Index			Weight	Index			
		Base year 2004-05			Base Year 2011-12					
			2011-12	2012-13	2013-14		2015-16	2016-17	2017-18	2018-19
1	Electricity	57.43	82.47	67.06	72.42	58.26	0.00	0.00	0.00	0.00
2	Mining	136.82	245.65	79.37	0.68	319.76	366.82	0.04	5.22	1.55
3	Manufacturing	805.75	105.60	115.66	106.54	621.98	91.82	101.76	80.42	106.31
Combined Index		1000.00	123.43	107.90	90.09	1000.0	57.41	63.30	49.99	66.12