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Government of Kerala

**REPORT OF
INDEX OF INDUSTRIAL PRODUCTION
2003-04**

**Department of Economics & Statistics
Thiruvananthapuram
2005**



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Preface

This publication brings out the index of industrial production of major 16 industrial groups of Kerala with base year 1980-81. The index of industrial production is one of the prime indicators of the economic development for the measurement of trend in the behavior of the industrial production over a period of time with reference to a chosen base year

The Department of Economics and Statistics is computing the index on a quarterly basis to study the changes in the industrial production in the state of Kerala. The annual index for the year 2003-04 and the indices for the quarter ended 30-6-2003, 30-9-2003, 31-12-2003, 31-3-2004 are presented for major NIC groups and group wise to facilitate comparison of trends.

This report is prepared by Sri. Usman Shereef Koori Assistant Director with the full co-operation of officials of IIP division under the supervision of Sri. S. Rajendran, Joint Director (S&D) and the over all guidance of Sri. K. Narayanan, Additional Director (S.I). Suggestions on the improvement of this publication are most welcome.

Thiruvananthapuram
10/10/2005

M. R. Balakrishnan
Director



Report of Index of Industrial production for the year 2003-04

Introduction

Index of Industrial production (IIP) is of immense use for measuring the industrial development of a state. This index not only reflects change in the industrial sector, but also used as an important tool for national/state accounts statistics for measuring progress or decline in the concerned sectors of the economy over a time. It also helps to study the changes in the volume of industrial production over a time also, for making inter industry comparison.

Coverage

The Index covers manufacturing and Electricity (Generation) Sectors of Kerala. Some of the Industrial units included in the Census Sector of the Annual survey of Industries (ASI) are only covered under the manufacturing sector for the preparation of Index. These units are registered factories and having either 50 workers or more using power or 100 or more workers without using power. Considering the large number of unit in the cashew processing, Tile manufacturing and Tea processing industries 50% of them are selected at random for enumeration. While all the units were enumerated in the case of other categories or industries. The production data are collected from the selected units regularly. From the sample selected, production estimates for all the units have been obtained by inflating the sample total by the rate of total employment in all the units (with respect to each of the group) to the employment in the selected units. The following Industrial sectors have been covered for preparation of Index.

1. Manufacture of food products (20-21)
2. Manufacture of beverages (22)
3. Manufacture of cotton textiles (23)
4. Manufacture of wool, silk and man made fibre textiles (24)
5. Manufacture of textile products (26)
6. Manufacture of wood and wood products (27)
7. Manufacture of paper and paper products (28)

8. Manufacture of basic chemicals and chemical products (30)
9. Manufacture of Rubber, plastic, petroleum and coal products, processing of nuclear fuels (31)
10. Manufacture of Mineral products (32)
11. Manufacture of basic metal and alloy Industries (33)
12. Manufacture of metal products and parts except Machinery and Equipment (34)
13. Manufacture of machinery and equipment other than transport equipment (36)
14. Manufacture of transport equipments and parts (37)
15. Other manufacturing Industries (38)
16. Electricity generation, transmission and distribution (40)

Method of computation

The Index is calculated using laspyer's formula as given under.

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

Where	I =	Index of Industrial production
	W _i =	weight attached to the i th item
	R _i =	$\frac{q_k}{q_0} \times 100$ is the quantity relative
	q _k =	produced quantity during Current year
	q ₀ =	produced quantity during Base year

Base year

The financial year 1980-81 is taken as the base year for computing the index both for comparison and for weighting. The indices are prepared on a quarterly, NIC code basis.

Weights

Weights are assigned in proportion to the value added by the manufacturer of the item basket during the base year. Data relating to the manufacture were collected from the Annual Survey of Industries report for 1980-81 in respect of the factories under the Census sector.

Production Data

The quarterly production data are collected from the selected Industrial units by mailed questionnaire followed by repeated personal visits of the district level officers;

General Index

The general index and group indices are at two digit level of National Industrial Classification 1987 computed for the quarter of 2003-04 are presented in Table I. The Indices computed at 3-digit level are included in Table II. Annual Index is the Arithmetic means of quarterly Indices.

Analysis of Result

The general Index for the year 2003-2004 decreased from 267.36 to 262.59 shows a decrease of 1.78 % compared to the previous year 2002-03. This is only due to the decrease in the volume or output in major Industrial groups . Among the 16 major groups, 3 groups recorded an increasing trend, 11 groups recorded decreasing trend, 2 groups should no change in the year compared to the last year

Sector wise Annual Index Analysis

In the year 2003-04, the following Industrial groups showed increased production trend.

1. Manufacture of food products (20-21)
2. Manufacture of Textile products (26)
3. Manufacture of Rubber, Plastic, Petroleum and coal products, processing of Nuclear fuels (31)

1. Manufacture of food products (20 -21)

The Production Index of food products (20-21) showed an upward trend during this year. The Index increased from 130.382 to 140.828 reflecting an increase of 8.012 % - This was mainly due to the increase in production of Bread from Modern Bakeries, India Ltd. Edappally, Coconut oil & coconut cake at Kerala Solvent Extractions Ltd, Irringalakkuda, Thrissur District.

2 Manufacture of Textile products (26)

The quantity Index of Textile and Coir products recorded an increasing trend during the year. The Index rose from 18.723 to 20.247 reflecting a nominal increase of 8.12%. This was mainly due to the production increase of Coir mattings at Aspin wall & Company Ltd., Alappuzha, Aspin Wall Company Ltd. & Power Loom Factory, Punnapra.

3 Manufacture of Rubber, Plastic, Petroleum and coal products, processing of nuclear fuels (31)

The quantity index for this group increased from 197.991 to 368.897 recording an increase of 86.32% during the year under report. This is due to the production increase of Tyres, Tubes and Flaps at Appolo Tyres I.td., Perambra in Thrissur District, sheet rubber, creep rubber and rubber latex produced at Peruman rubber factory and Koduman Latex factory in Pathanamthitta district, rubber products produced by Thiruvampadi rubber company, Kozhikode and petroleum products from Cochin Refineries, Ambalamugal Ernakulam.

The Industry groups which showed decreasing trend for the year 2003-04 are given below:

1. Manufacture of Beverages (22)
2. Manufacture of cotton textiles (23)
3. Manufacture of wood and wood products (27)
4. Manufacture of basic chemicals and chemical products (30)
5. Manufacture of non mineral products (32)
6. Manufacture of basic metals and alloy industries (33)
7. Manufacture of metal products and parts except machinery and equipment (34)
8. Manufacture of machinery and equipment other than transport equipment (35-36)
9. Manufacture of transport equipment and parts (37)
10. Other manufacturing industries (38)
11. Electricity generation, transmission and distribution (40)

(a) Manufacture of Beverages (22)

The production index in respect of this group recorded a substantial decrease of 30.69 percent during the year. The index declined from 230.705 to 159.907. This was due to the production decrease of whisky produced by MC Dowell company, Kanjikuzhi, Alappuzha and Beedi manufactured from the various industries of Kannur District.

(b) Manufacture of cotton Textiles (23)

In this sector the quantity index decreased from 113.814 to 99.036 showing a percent of 12.984. This has occurred due to the decline in production of cotton cloths manufactured from Rajarajeswari Weaving Mills, Azhikode, Kannur District.

(c) Manufacture of wood & wood products (27)

The index for this group recorded a substantial decrease of 36.796% during the year. The index declined from 39.740 to 25.117. The reason for this decline is due to the production decrease of splints and veneers produced by the model workers industrial co-operative society, Palakkad and the wooden furnitures manufactured from the forest industries, Vazhakulam Eranakulam District.

(d) Manufacture of Basic chemicals and chemical product (30)

This group showed a slight decrease of 2.802 % during the year compared to the previous year. The quantity index decreased from 274.851 to 267.151. This short fall was due to the production decline of DDT and BHC produced by the Hindustan insecticides, Udyogamandal, Eranakulam and Toilet soaps manufactured from the S.V. products, Irrinjalakkuda Thrissur.

e) Manufacture of Mineral products (32)

The index of this group recorded a nominal decrease of 7.49% during the year. The index declined from 176.349 to 163.139. The reason for this decrease is due to the production decrease of Tiles and other products manufactured from Best Brick Tile Works Ltd, Eranaad Malappuram and glass products produced by Excel Glass Ltd, Udaya Nagar, Alappuzha.

f) Manufacture of Basic metals and Alloy Industries (33)

The production index of this group decreased from 77.900 to 55.834 showed 28.326% during the year compared to the previous year. . The main reason for the decrease is due to the less production of Billets manufactured by the Steel Complex, Kolathara, Kozhikode and the production decrease of Ingots & Rods produced by Indian Aluminum Co-Ltd. Kalamassery, Eranakulam.

g) Manufacture of Metal products and parts except machinery and Equipment (34)

The quantity index of this group showed a substantial decrease of 45.257% during the year compared to the previous year. The index declined from 646.382 to 353.852. This is due to the less production of Caps and Containers by the Delta Tin Works, Eranakulam.

(h) Manufacture of machinery & equipment other than transport equipment (35-36)

The quantity index in respect of this group recorded 12.36 percent decrease during this year . The reason for this decline is due to the production decrease of parts and accessories of industrial machines (Tiller) produced by the Kerala Agro machinery corporation Ltd, Ernakulam, Electrical goods by the Kerala Electrical and allied Engineering Company, Ernakulam Switches, Steel Structures etc, from Kerala Electrical and Allied Engineering Company, Palakkad, Aluminum conductor PVC cables from the Traco Cable Company Ltd, Ernakulam and Electric equipment produced by the BPL India. Palakkad

(i) Manufacture of transport equipments and parts (37)

The very low performance of Cochin shipyard during the year declined the index from 19.408 to 2.052 and recorded a percentage decrease of 89.427. The work of 104359 (MT) DWT (Dead weight tonnage) was carried out during the year 2002-03, But only 17479 (MT) DWT was carried out the year 2003-04

(j) Other manufacturing industries (38)

The production Index for this group decreased from 28.650 to 23.925 recording a decrease of 16.492% during the year. The less production of water meters by the Anand Water Meter Company, Cochin is the main reason for the decline of the index .

Electricity Generation, transmission and distribution (40)

A nominal decrease of 4.56% has been noted in this group. The index for this group declined from 172.176 to 164.325. This short fall was due to the production decrease of Electricity by KSEB

TABLE I - INDEX OF INDUSTRIAL PRODUCTION 2003-04

Sl. No	Code No	Item	Weight	Index for		
				2001-02	2002-03	2003-04
		GENERAL INDEX	100	302.29	267.355	262.59
1	20-21	Manufacture of food products	8.82	119.181	130.382	140.828
2	22	Manufacture of beverages, tobacco and related products	1.46	191.497	230.705	159.907
3	23	Manufacture of cotton textiles	8.02	151.688	113.814	99.036
4	24	Manufacture of wool, silk and man made fibre textiles	1.26	33.054	32.919	32.926
5	26	Manufacture of textile products	3.26	17.207	18.723	20.247
6	27	Manufacture of wood and wood products	1.35	31.521	39.740	25.117
7	28	Manufacture of paper and paper products	3.16	NIL	NIL	NIL
8	30	Manufacture of basic chemicals and chemical products (except Petroleum and Coal)	19.78	429.998	274.851	267.151
9	31	Manufacture of rubber, plastic, petroleum and Coal products and processing of Nuclear fuels	10.06	177.996	197.911	368.897
10	32	Manufacture of non-metallic mineral products	3.42	267.228	176.349	163.139
11	33	Basic Metals and Alloys Industries	3.43	79.944	77.900	55.834
12	34	Manufacture of metal products and parts except machinery & equipments	0.50	660.355	646.382	353.852
13	35-36	Manufacture of machinery and equipments other than transport equipment	9.46	1226.269	1240.274	1086.974
14	37	Manufacture of transport equipment and parts	2.67	9.820	19.408	2.052
15	38	Other manufacturing Industries	1.42	28.650	28.650	23.925
16	40	Electricity Generation, transmission and distribution	21.93	187.811	172.176	164.325

Base: 1980-81 - 100

TABLE II - INDEX OF INDUSTRIAL PRODUCTION 2003 - 04

Base year 1980-81 = 100

Sl. No	NIC Code	Item	Weight	Index for the quarter ending				Annual
				June 2003	September 2003	December 2003	March 2004	
I	2	3	4	5	6	7	8	9
		GENERAL INDEX	100	212.358	220.405	310.871	306.722	262.59
I	20-21	Manufacture of food products	8.82	111.434	135.901	155.087	160.890	140.828
	202	Canning & preservation of fruits & vegetables	0.09	33.620	26.392	32.668	28.277	30.239
	203	Processing, canning; & preservation of fish and similar foods	0.46	106.567	95.422	105.790	135.371	110.788
	204	Grain milling	0.11	3.589	2.846	2.419	3.560	3.104
	205	Manufacture of bakery products	0.21	380.621	347.023	393.786	346.268	366.925
	206	Manufacture of refining of sugar	0.41	4.835	43.964	12.297	17.829	19.731
	211	Manufacture of vegetable oil and fats	0.08	677.984	709.389	770.888	730.459	722.180
	213	Processing & blending of Tea	2.19	230.082	317.030	399.717	147.775	273.651
	214	Coffee curing, roasting, grinding, blending etc. including manufacture of instant coffee	0.11	32.490	36.813	31.009	38.763	34.769
	215	Processing of edible nuts	4.49	63.741	68.120	64.123	197.348	98.333
	218	Manufacture of starch	0.67	NIL	NIL	NIL	NIL	NIL
II	22	Manufacture of beverages, tobacco & related foods	1.46	180.884	160.668	138.957	159.118	159.907
	220	Distilling, rectifying and blending of spirits, ethyl alcohol production from fermented materials	1.06	178.965	165.156	130.153	145.838	155.028
	222	Manufacture of malt liquors and malt	0.15	481.524	377.278	412.710	500.662	443.044
	226	Manufacture of beer	0.25	13.179	15.049	16.056	15.462	14.937
III	23	Manufacture of cotton textiles	8.02	109.143	92.482	99.550	94.968	99.036
	230	Cotton spinning, cleaning and baling	7.68	104.245	92.330	99.530	95.084	97.797
	233-234	Weaving and finishing of cotton textiles of handloom and power looms	0.34	218.945	95.884	99.987	92.354	126.793

1	2	3	4	5	6	7	8	9
IV	24	Manufacture of wool, silk and man made fibre textiles	1.26	34.299	29.464	32.366	35.576	32.926
	244	Spinning, weaving and finishing of silk textiles other than in mills	1.26	34.299	29.464	32.336	35.576	32.919
V	26	Manufacture of textile products (including wearing apparel)	3.26	18.024	22.292	16.792	23.881	20.247
	260	Manufacture of knitted or textile products	0.06	64.506	96.119	92.619	72.827	81.518
	261	Manufacture of all kinds of threads, cordage ropes, twine & nets etc.	2.79	NIL	NIL	NIL	NIL	NIL
	264	Manufacture of floor coverings of Jutes, metasam hemp & other fibers of Coir	0.41	134.482	163.771	134.120	180.036	153.102
VI	27	Manufacture of wood & wood products, furniture & fixtures	1.35	27.879	26.411	19.614	26.565	25.117
	270	Sawing & Planing of wood	0.10	27.977	27.506	19.706	26.620	25.452
	271	Manufacture of veneer sheets	1.02	33.704	36.197	29.900	31.484	32.821
	276	Manufacture of wooden furniture & fixtures	0.23	24.826	17.198	14.577	24.109	20.178
VII	28	Manufacture of paper & paper products & print-ing, publishing & other allied industries	3.16	NIL	NIL	NIL	NIL	NIL
	280	Manufacture of pulp, paper and paper board including manufacture of newsprint	3.16	NIL	NIL	NIL	NIL	NIL
VIII	30	Manufacture of basic chemicals & chemical products of petroleum & coal	19.78	269.739	292.164	279.072	227.627	267.151
	300	Manufacture of Industrial & inorganic chemicals (Manufacture of chemicals for laboratory & technical uses)	6.39	205.829	236.607	238.758	221.392	225.647
	301	Manufacture of fertilizers and chemicals	9.86	343.828	210.317	207.756	98.052	214.988

	2	3	4	5	6	7	8	9
	304	Manufacture of drugs, medicines & allied products	1.13	237.562	1596.199	1397.812	1558.930	1197.626
	305	Manufacture of Perfumes, Cosmetics, Lotion, Hairdressings, Toothpaste, Soap in any form, and detergents. Shampoos, Shaving products, cleaning.	2.40	150.632	160.478	151.067	147.905	152.521
IX	31	Manufacture of Rubber, Plastic, Petroleum & Coal Products, Processing of Nuclear Fuels	10.06	201.201	202.134	610.903	461.351	368.897
	310	Tyre & Tube Industries	1.16	129.553	120.531	134.423	136.902	130.352
	312	Manufacture of Rubber products not elsewhere classified	2.28	69.559	77.853	1861.216	1133.844	785.618
	314	Manufacture of Refined Petroleum products	6.62	259.234	259.369	262.396	285.844	266.710
X	32	Manufacture of Non-metallic mineral products	3.42	139.744	147.179	185.756	179.870	163.139
	320	Manufacture of refractory products and Structural Clay products	2.13	21.355	21.408	25.437	24.098	23.075
	321	Manufacture of glass and glass products	0.30	21.478	102.392	500.701	530.048	288.655
	323	Manufacture of non-structural ceramic wares	0.18	3.954	22.068	41.120	60.172	31.828
	324	Manufacture of Cement, lime and Plaster	0.32	70.413	68.512	62.871	82.825	71.155
	329	Manufacture of miscellaneous non-metallic mineral products not elsewhere classified	0.49	830.513	826.670	829.219	754.983	810.346
XI	33	Basic Metal & Alloys Industries	3.43	55.454	68.030	56.558	43.294	55.834
	330	Manufacture of Iron & Steel in Primary / Semi finished forms	1.20	27.137	42.467	33.236	27.231	32.518
	331	Manufacture of Semi-finished Iron & Steel Products in re-rolling mills, Cold rolling mills, wire drawing mills	0.35	2.130	1.317	1.577	2.807	1.958

1	2	3	4	5	6	7	8	9
	335	Aluminum manufacturing	1.88	83.324	96.598	81.541	61.124	80.647
XII	34	Manufacture of metal products & parts except machinery and equipments	0.50	394.240	447.763	109.687	463.716	353.852
	340	Manufacture of fabricated structural metal products	0.09	NIL	NIL	NIL	NIL	NIL
	341	Manufacture of fabricated metal products not else-where classified	0.08	2223.517	2571.290	387.183	2741.534	1980.881
	343	Manufacture of handlooms, weights & Measures & general hardwares	0.28	35.012	40.820	19.982	17.324	28.285
	346	Manufacture of metal cutlery, Utensils & Kitchen ware	0.05	312.475	285.741	356.403	313.755	317.094
XIII	35-36	Manufacture of machinery & equipment other than Transport equipment	9.46	756.029	771.330	1323.779	1496.763	1086.974
	354	Manufacture of Industrial machinery other than food & textile Industries	0.01	8550	9400	7300	8458.333	8427.083
	357	Manufacture of machine tools & their parts & accessories	1.06	36.522	60.870	63.478	76.523	59.348
	359	Manufacture of Special purpose machinery equipment, their components not else-where classified	0.04	NIL	NIL	NIL	NIL	NIL
	360	Manufacture of electrical industrial machinery, apparatus & parts thereof	2.34	152.419	161.635	144.623	154.363	153.260
	361	Manufacture of industrial wires & cables including manufacture of optical fibre cables	1.96	1149.223	103.558	68.363	166.974	372.030
	362	Manufacture of accumulators, primary cells & primary batteries	1.11	NIL	NIL	NIL	NIL	NIL
	363	Manufacture of electrical lamps	0.42	NIL	NIL	NIL	NIL	NIL

1	2	3	4	5	6	7	8	9
	364	Manufacture of electric fans & electrical electro-thermic domestic appliances and parts thereof	0.05	NIL	NIL	NIL	NIL	NIL
	365	Manufacture of apparatus for radio broadcasting. T. V. transmission, Radar apparatus and radio remote control apparatus	1.42	1555.165	2929.866	6461.197	5179.927	4031.539
	367	Manufacture of Computers and computer based systems	0.34	812.411	365.985	442.268	149.629	442.573
	368	Manufacture of electronic valves and tubes and other electronic components	0.71	2709.714	3175.030	3601.459	8266.466	4438.167
XIV	37	Manufacture of Transport equipment and parts	2.67	1.988	2.129	1.847	2.242	2.052
	370	Shipping & Boat building	1.94	NIL	NIL	NIL	NIL	NIL
	373	Manufacture of heavy motor vehicles, Coach work	0.64	NIL	NIL	NIL	NIL	NIL
	376	Manufacture of Bi-cycle, cycle	0.09	56.323	60.309	52.336	63.510	58.119
XV	38	Other Manufacturing industries	1.42	30.757	21.916	18.375	24.650	23.925
	380	Manufacture of medical, surgical, scientific and measuring equipments except optical equipment	1.38	4.382	6.030	10.724	14.293	8.857
	382-89	Manufacture of coaches and docks	0.04	874.839	530.323	263.226	356.130	506.130
XVI	40	Electricity generation, transmission and distribution	21.93	161.793	164.772	159.239	171.495	164.325
	400	Generation and transmission of electric energy	21.93	161.793	164.772	159.239	171.495	164.325

CHART - I

Trend of Index of Industrial Production for the NIC Group(20-21)
(Manufactured Commodities)

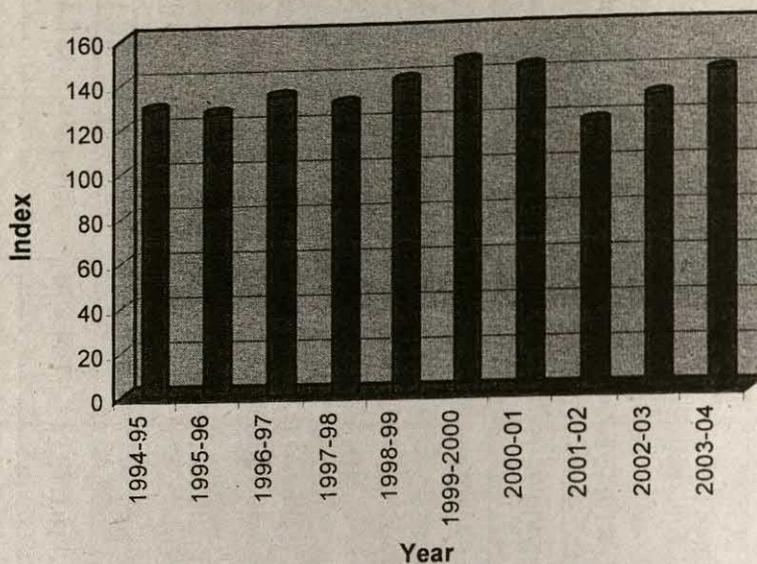


CHART - II

Trend of General Index of Industrial Production from 1994-95 to 2003-04

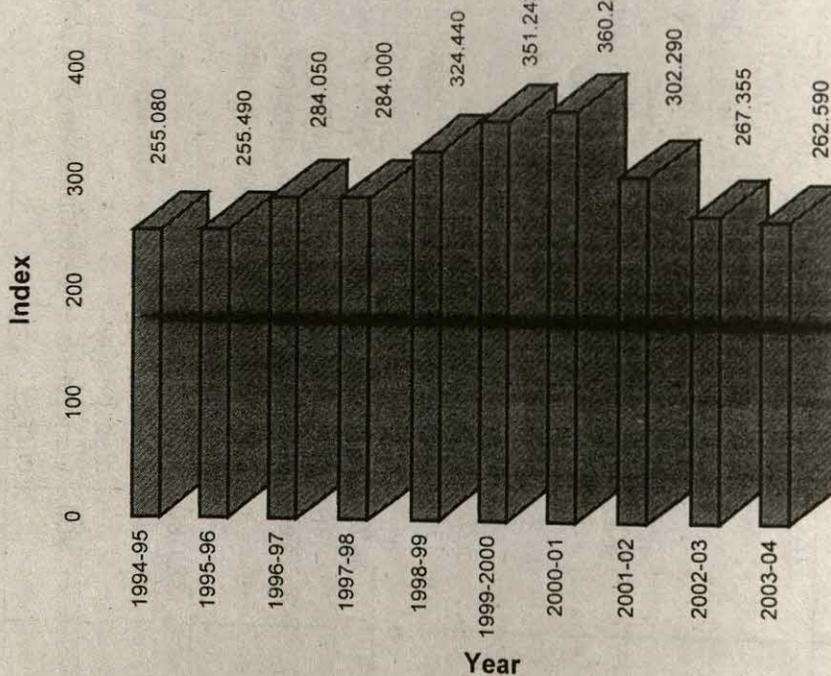


CHART - III

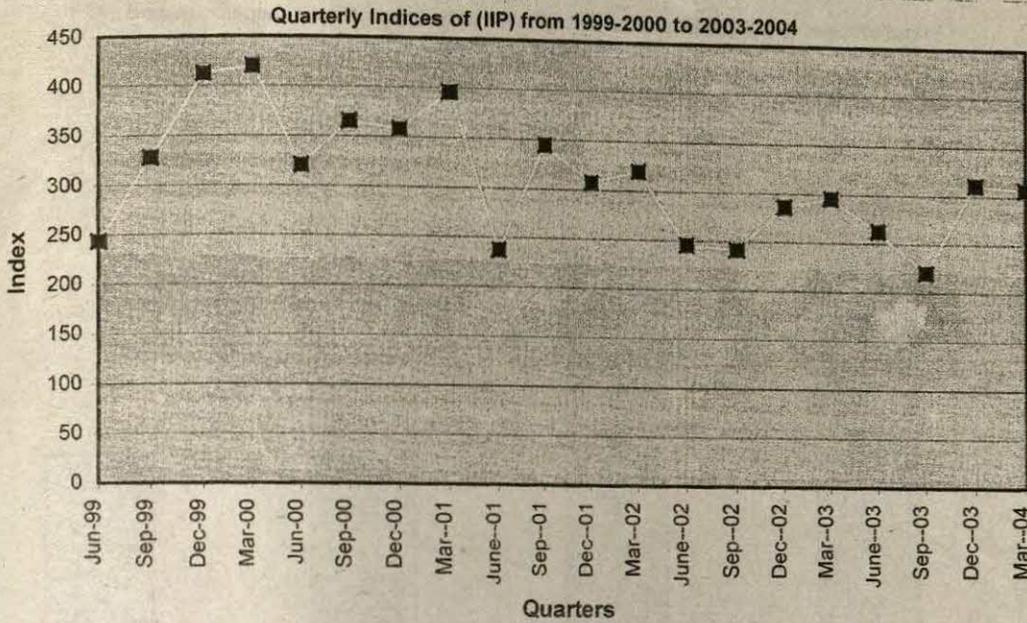


CHART - IV

**Index of Industrial Production of
Various NIC Groups for the year (2003-04)**

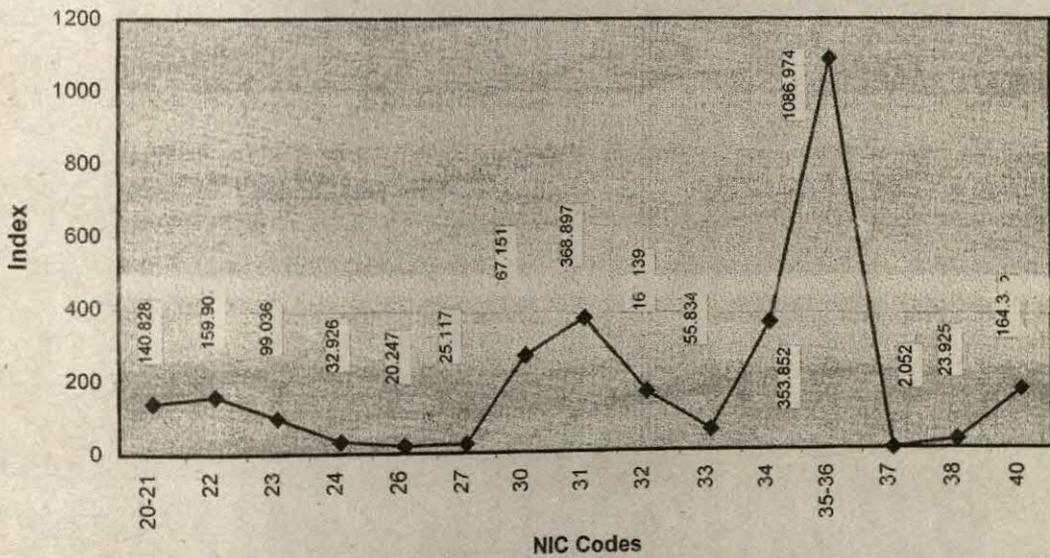
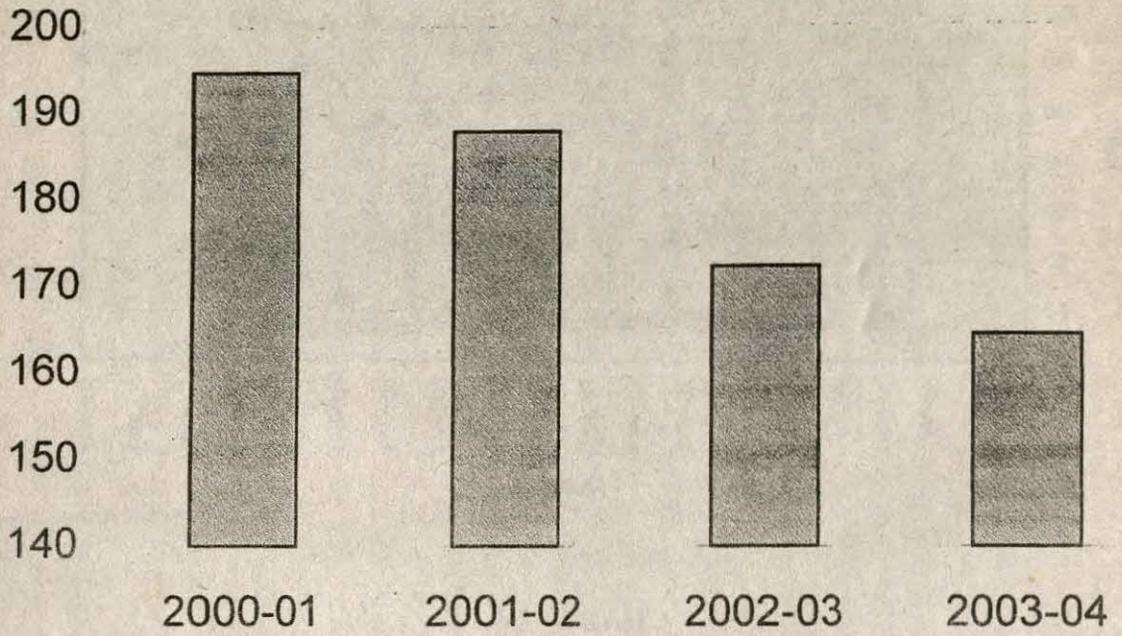


CHART - V

Trend of Index of Industrial production of Electricity Generation, Transmission and Distribution of Kerala



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