

*Government of Kerala*

*Report of the Index of Industrial Production  
2006-07*

**Department of Economics & Statistics  
Thiruvananthapuram  
2007**





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## *Preface*

The Department of Economics & Statistics publishes the Index of Industrial Production every year with a view to aiding the Government and the public to quantify the rate at which and the mode in which the industrial sector in the state progresses or regresses and to form policies based on the trend thus elicited. This issue of the report is significant as it has incorporated a few changes that the Central Statistical Organization suggested, including revision of base year and replacement of GVO for quantity of production for computation.

Quarterly indices for the year 2006-2007 and NIC Code-wise indices of 17 major industrial groups are computed and brought out in this report for study. As per the CSO guideline, the base year has been shifted from 1980-81 to 1993-94 so as to facilitate a comparative study of state-wise indices all over India.

This report is prepared by Sri. M.K. Mohandas (Asst. Director, IIP), Smt. C.S.Baby (Research Assistant) and P.P.Sunitha (UD Compiler) under the supervision of Sri. M. Suresh Babu (Joint Director, Survey & Design) and the overall guidance of Sri. K. Asokan (Addl. Director, State Income). Suggestions on the improvement of this publication are most welcome.

**M.R. Balakrishnan  
Director**

Thiruvananthapuram

18 - 01 - 2008

To see stage 1, we can use the following command:

git checkout -b stage1 & git merge --no-commit --no-ff master

After this command, you will see the changes made in stage 1.

Now, we can use the following command to see the changes made in stage 2:

git checkout -b stage2 & git merge --no-commit --no-ff master

After this command, you will see the changes made in stage 2.

Finally, we can use the following command to see the changes made in stage 3:

git checkout -b stage3 & git merge --no-commit --no-ff master

After this command, you will see the changes made in stage 3.

That's it! You have now learned how to use Git's three-stage commit system.

## **Report of the Index Of Industrial Production for the Year 2006-2007**

### **Introduction**

The Index of Industrial Production measures the impact of development in the field of industrial sector over a period of time in the state in comparison with a selected previous year. The index gives a comprehensive view of the industrial development of the state. It can work as a guide for the Government and Industrialists. They can make maximum and overall progress realizing the areas which are strong and which require special attention. With the introduction of the revised base year of 1993-94, it is possible to make out where our state stands in relation to the other states of the country.

### **Coverage**

So far, the Index used to cover only the production in the manufacturing and electricity generation and transmission sectors in the state. From 2004-2005 issue onwards, in addition to the above, the Mining and Quarrying industry also falls within the purview of IIP. The manufacturing sector dealt with in IIP shares some of the industrial units with the Annual Survey of Industries (ASI). The criterion for the selection of these units is that they should either engage 50 workers or more using power or employ 100 or more workers without using power. For the sake of convenience and to make the actual unwieldy data handy, 50% of the industry groups of cashew processing, tile manufacturing and tea processing are selected at random.

The production estimates for all the units are reached by way of amplifying the totals of the samples selected at the rate of total employment in all the units to the employment in the chosen units. The revised list of 17 industry groups which are selected for the preparation of IIP and their two-digit NIC codes given below.

1. Mining and Quarrying (15-19)
2. Manufacture of Food Products (20-21)
3. Manufacture of Beverages, Tobacco etc (22)

4. Manufacture of Cotton textiles (23)
5. Manufacture of Wool, Silk etc (24)
6. Manufacture of Jute & other Vegetable Fibre Textiles (25)
7. Manufacture of Textile Products & Fibres (26)
8. Manufacture of Wood & Wood Products (27)
9. Manufacture of Paper & Paper Products (28)
10. Manufacture of Basic Chemicals & Chemical Products (30)
11. Manufacture of Rubber, Plastic, Petroleum etc (31)
12. Manufacture of Non-metallic Mineral Products (32)
13. Basic Metal & Alloys (33)
14. Manufacture of Metal Products & Parts (34)
15. Manufacture of Machinery & Equipments (35-36)
16. Other Manufacturing Industries (38)
17. Electricity Generation, Transmission & Distribution (40)

### Method of Computation

The Index of Industrial Production is obtained by using the Laspeyres formula:

$$I = \frac{\sum f [W_i x R_i]}{\sum f W_i}$$

Where  $I$  = Index of Industrial production

$W_i$  = Weight assigned to the  $i^{\text{th}}$  item

$R_i = \frac{q_k}{q_0} \times 100$

The **GVO** relative obtained using the equation

Where  $q_k$  = GVO during the current year

$q_0$  = GVO during the Base Year

Significantly, complying with the instruction given by the Central Statistical Organization (CSO), in place of the Quantity produced, the Gross Value Output of both the base year and the current year is used for arriving the Index.

## **Base Year**

In order to ensure more accuracy and better reliability of the data, the base year has been shifted from 1980-81 to the more recent year of 1993-94. The weights are distributed among the items at various levels on the basis of the figures of the year 1993- 94; and the current year GVO is weighted against the GVO of the year 1993- 94 to work out the index.

## **Weights**

The Allocation of weights at two and three digit levels are made in proportion to the Gross Value Output of the base year (1993-94). Thus at two-digit level, the weight is distributed among three groups – Mining and Quarrying (15-19), Manufacturing (20-38) and Electricity Generation, Transmission and Distribution (40) in relation to the relevance these groups had in the year 1993-94. Within these groups, the weight is again distributed at three-digit level in the same manner.

## **Source of Data**

As far as the Mining sector is concerned, data is furnished by the Indian Bureau of Mines, Nagpur. Quarterly reports collected by mailed questionnaires followed by repeated personal visits of the district-level officers from the 435 selected industrial units in the state are the source of data in the Manufacturing Sector. The monthly production data on the generation of electricity is supplied by Central Statistical Organisation.

## **Index Figures 2006-2007**

The General Index of Industrial Production for the year 2006-07 with 1993-94 as the base year is 255.471. The index of Mining and Quarrying Sector is 173.598. The Manufacturing Sector Index is 260.102 and the Index of the Electricity Sector is 208.589.

Quarterly Index of each group and quarterly and annual NIC Code-wise (two and three digit) Indices are given in the tables below. The general index is the arithmetic mean of the quarterly indices.

## Index Figures 2006-07

The general index for the year 2006-07 increased from 208.31 to 255.471 showing an increase of 22.64%. Among the 17 major groups, all groups except group 24 & 25 showed a marked increase in index.

**TABLE III - INDEX OF INDUSTRIAL PRODUCTION 2006-07**

Sl. No	NIC Code	Item Description	Base Year: 1993-94	
			Weight	Index 2006-07
1.	13-19	Mining and Quarrying	0.51	173.598
2.	20-21	Manufacture of Food Products	20.09	183.310
3.	22	Manufacture of Beverages, Tobacco etc	2.27	393.608
.	23	Manufacture of Cotton Textiles	5.88	189.025
.	24	Manufacture of Wool, Silk etc	0.09	272.333
.	25	Manufacture of Jute & other Vegetable Fibre Textiles	0.62	74.437
	26	Manufacture of textile products & fibres	0.16	383.553
	27	Manufacture of Wood & Wood Products	1.26	84.497
	28	Manufacture of Paper & Paper Products	5.60	253.274
	30	Manufacture of Basic Chemicals & Chemical Products	17.90	302.235
	31	Manufacture of Rubber, Plastic, Petroleum etc	27.86	276.151
	32	Manufacture of Non-metallic Mineral Products	3.00	306.425
	33	Basic Metal & Alloys	2.47	300.236
	34	Manufacture of Metal Products & Parts	0.55	217.409
	35	Manufacture of Machinery & Equipments	4.74	340.118
	38	Other Manufacturing Industries	0.15	286.454
	40	Electricity Generation, Transmission and Distribution	6.85	208.589
		<b>General Index</b>	<b>100</b>	<b>255.471</b>

**TABLE IV - INDEX OF INDUSTRIAL PRODUCTION 2006-07**

Base Year 1993-94

Sl. No	NIC Code	Item Description	Weight	Index for the quarter ending				Annual
				Jun 2006	Sept 2006	Dec 2006	Mar 2007	
<b>GENERAL INDEX</b>								
1.	15-19	Mining & Quarrying	100	267.176	284.610	246.940	223.157	255.471
2.	20-21	Manufacture of Food Products	0.51	173.598	173.598	173.598	173.58	173.58
i	201	Manufacture of dairy products	20.09	168.750	178.228	223.497	162.165	183.310
ii	202	Canning & preservation of fruits & vegetables	11.09	562.850	698.86	651.920	656.874	642.413
iii	204	Grain milling	0.87	0.000	0.000	0.000	0.000	0.000
iv	205	Manufacture of bakery products	12.30	82.213	79.13	30.478	84.126	81.487
v	209	Manufacturing & refining of Sugar	1.16	241.795	291.55	322.926	225.556	270.557
vi	211	Manufacture of Vegetable oils & fats	0.64	843.478	807.98	999.220	1117.869	942.137
vii	213	Manufacture of tea	10.05	88.903	92.08	87.249	89.938	89.543
viii	215	Processing of cashew nuts	29.19	81.882	68.10	73.642	60.792	71.104
ix	217	Manufacture of animal feeds & oil cakes	27.57	20.705	26.20	26.199	23.160	24.066
x	219	<i>Areca nuts &amp; Copra</i>	4.44	524.629	475.43	544.135	540.660	521.214
3.	22	Manufacture of Beverages, Tobacco etc	2.70	969.677	925.39	2574.777	467.639	1234.371
i	222	Manufacture of liquors	2.27	373.835	383.803	391.931	424.862	393.608
ii	226	Manufacture of beedi	41.22	545.634	538.31	532.188	489.303	526.359
			38.78	253.346	275.44	293.563	379.667	300.504

Sl. No	NIC Code	Item Description	Weight	Index for the quarter ending			Annual
				Jun 2006	Sept 2006	Dec 2006	
4.	23	Manufacture of Cotton Textiles	5.88	198.877	197.956	184.595	174.671 <b>189.025</b>
i	233	Manufacture of cotton shirting & furnishing cloth	12.45	92.276	153.62	167.186	186.036 <b>149.772</b>
ii	234	Manufacture of cloth	3.93	339.362	395.57	384.180	370.352 <b>372.369</b>
iii.	235	Manufacture of cotton yarn	83.62	208.149	195.28	177.814	163.794 <b>186.259</b>
5.	24	Manufacture of Wool, Silk etc.	0.09	264.670	287.706	275.682	261.276 <b>272.333</b>
i.	247	Manufacture of synthetic yarn	100	264.670	287.706	275.682	261.276 <b>272.333</b>
6	25	Manufacture of Jute & other Vegetable Fibre Textiles	0.62	74.593	71.518	75.455	76.133 <b>74.437</b>
i.	255	Manufacture of coir mattress	100	74.593	71.518	75.455	76.133 <b>74.437</b>
7.	26	Manufacture of textile products & fibres	0.156	367.423	443.837	328.797	394.156 <b>383.553</b>
i.	261	Manufacture of coir yarn	100	367.423	443.837	328.797	394.156 <b>383.553</b>
8.	27	Manufacture of Wood & Wood Products	1.26	82.046	88.072	80.215	87.654 <b>84.497</b>
i	270	Splint for matches & timber veneers	51.91	39.324	35.09	33.586	36.078 <b>36.012</b>
ii	271	Plywood & allied products	42.96	137.000	156.72	137.208	148.231 <b>144.789</b>
iii	276	Wooden furniture	5.14	54.159	49.28	74.753	102.275 <b>70.099</b>

Sl. No	NIC Code	Item Description	Weight	Index for the quarter ending				Annual
				Jun 2006	Sept 2006	Dec 2006	Mar 2007	
9.	28	Manufacture of Paper & Paper Products	5.61	247.714	237.514	259.131	268.638	253.274
i	280	Manufacture of pulp, paper & paper board	52.55	217.449	192.75	233.065	252.417	245.708
ii	281	Manufacture of paper boxes	3.27	92.211	104.88	96.289	114.766	102.037
iii	284	Newspapers, Advertising Materials	44.18	307.184	312.99	314.433	311.449	311.514
	285							
10.	30	Manufacture of Basic Chemicals & Chemical Products	17.91	277.543	337.037	352.923	241.434	302.235
i	300	Manufacture of industrial chemicals	29.36	267.624	409.82	335.089	505.592	379.531
ii	301	Manufacture of fertilizers & pesticides	49.91	9.463	14.57	12.543	9.758	11.584
iii	304	Manufacture of medicines & allied products	3.41	3623.314	4274.47	5214.934	512.449	3406.292
iv	305	Manufacture of cosmetics	10.73	211.351	140.31	157.065	205.749	178.619
v	309	Manufacture of chemical products not elsewhere classified	6.54	738.917	749.87	827.359	742.164	764.578

Sl. No	NIC Code	Item Description	Weight	Index for the quarter ending				Annual
				Jun 2006	Sept 2006	Dec 2006	Mar 2007	
11.	31	Manufacture of Rubber, Plastic, Petroleum etc	27.87	365.061	375.037	183.435	180.703	276.151
I	310	Tyre & tube industries	14.56	181.476	173.41	144.339	177.970	169.299
ii	311	Manufacture of footwear	2.98	56.280	64.57	50.733	45.471	54.264
iii	312	Manufacture of rubber products not elsewhere classified	23.29	18.979	16.83	12.235	11.198	14.811
iv	313	Manufacture of plastic products	1.31	17.606	19.21	15.659	11.602	16.022
v	314	Manufacture of refined petroleum products	56.49	488.324	609.13	279.468	266.765	435.922
vi	319	Manufacture of other coal & coal tar products	1.38	0.000	0.000	0.000	0.000	0.000
12.	32	Manufacture of Non-metallic Mineral Products	3.00	315.509	330.777	283.069	296.346	306.425
I	320	Manufacture of bricks, tiles etc	36.88	44.174	.43.77	46.187	54.925	47.264
ii	323	Manufacture of non-structural ceramic ware	6.20	36.919	950.85	990.507	970.478	962.189
iii	324	Manufacture of cement, lime & plaster	36.83	280.459	361.59	285.344	291.0274	304.605
iv	327	Manufacture of asbestos, cement & allied products	8.46	269.555	268.75	63.605	214.322	204.061
v	329	Manufacture of miscellaneous non-metallic mineral products not elsewhere classified	11.62	89.850	858.43	810.112	778.759	859.288

Sl. No.	NIC Code	Item Description	Weight	Index for the quarter ending			Annual
				Jun 2006	Sept 2006	Dec 2006	
13.	33	Basic Metal & Alloys	2.47	284.400	313.918	335.384	267.242
i	330	Manufacture of iron & steel	16.34	336.650	430.94	313.61	355.328
ii	336	Manufacture of zinc	83.66	274.195	291.06	339.627	250.037
14.	34	Manufacture of Metal Products & Parts	0.55	203.530	216.766	220.430	228.909
i	340	Manufacture of fabricated metal products	53.18	57.472	81.000	63.531	69.344
ii	343	Manufacture of agricultural hand tools & other equipments	21.37	76.246	91.57	82.566	86.441
iii	344	Manufacture of industrial forgings	25.45	615.533	605.51	663.859	681.879
15.	35-36	Manufacture of Machinery & Equipments	4.74	278.336	279.277	391.265	411.595
i	350	Manufacture of agricultural machinery & equipments	6.07	583.204	550.70	606.037	550.416
ii	357	Manufacture of machine tools & their parts	8.77	0.00	0.00	0.00	0.00
iii	360	Manufacture of electrical, industrial machinery, apparatus & parts	31.93	317.446	412.17	621.498	369.801
iv	361	Manufacture of insulated wires & cables	19.98	132.286	61.30	200.473	449.400
v	365	Manufacture of apparatus for radio broadcasting, television transmission, radar apparatus etc	12.00	559.483	654.39	748.997	1101.104
vi	366	Manufacture of television receivers, reception apparatus for radio etc	8.14	412.912	183.17	174.087	241.504
vii	368	Manufacture of electronic valves & tubes	13.12	109.882	65.41	91.193	141.465

Sl. No	NIC Code	Item Description	Weight	Index for the quarter ending			Annual
				Jun 2006	Sep: 2006	Dec 2006	
16.	38	Other Manufacturing Industries	0.15	265.982	277.270	277.184	325.378
i.	380	Manufacture of medical & measuring equipments except optical equipments	100	265.982	277.270	277.184	325.378
17.	40	Electricity Generation, Transmission and Distribution	6.86	208.589	208.589	208.589	208.589
i.	400	Electricity Generation, Transmission and Distribution	100	208.589	208.589	208.589	208.589

## Sector-wise Annual Index Analysis

During the year 2006-07, all industrial groups except group 24 & 25 showed a considerable increase in their indices. While Group 24 remained stable, Group 25 recorded negative trend.

1.	Mining & Quarrying (15-19)
2.	Manufacture of Food Products (20-21)
3.	Manufacture of Beverages, Tobacco etc (22)
4.	Manufacture of Cotton Textiles (23)
5.	Manufacture of Jute and Other Vegetable Fibres (25 )
6.	Manufacture of Textile Products & fibrcs (26)
7.	Manufacture of Wood & Wood Products (27 )
8.	Manufacture of Paper & Paper Products( 28 )
9.	Manufacture of Basic Chemicals &Chemical Products (30 )
10.	Manufacture of Rubber, Plastic, Petroleum etc (31)
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12.	Basic Metal & Alloys (33)
13.	Manufacture of Metal Products & Parts (34 )
14.	Manufacture of Machinery and Equipments (35-36)
15.	Other Manufacturing Industries (38)
16.	Electricity- Generation, Transmission and Distribution (40) .

### 1. Mining and Quarrying

The index of this group shot up from 169.13% to 173.60% showing an increase of 2.64 %

### 2. Manufacture of Food Products (20-21 )

The index of this group recorded a 15.72 % increase during the year. The index surged ahead from 158.411 to 183.310 due to the increase in the GVO reported from Eranakulam Diary and KCMMF Ltd Thuravoor, Alappuzha.

### 3. Manufacture of Beverages, Tobacco etc. (22)

The index of this group shot up from 363.816 to 393.608 this year gaining 29.792 points, i.e. 8.19 %. The major reason for this increase in index is the increase in the GVO reported from McDowell & Company, Vavanadu, Alappuzha.

### 4. Manufacture of Cotton Textiles (23))

When compared to 2005-06, the index showed a 39.76% increase by gaining 53.774 points, i.e. from 135.251 to 189.025, mainly as a result of the increase in GVO reported from KITEX, Eranakulam and Bhagavathy Textile Mills, Palakkad..

### 5. Manufacture of Jute & other Vegetable Fibre Textiles (25)

The index slumped from 110.058 to 74.437 marking a decrease of 32.37%. The major reason for this decrease is the decreased GVO reported from Kerala State Coir Corporation Ltd., Alappuzha and Aspinwall Coir Ltd. Thannermukkam Punnappa, Alappuzha.

### 6. Manufacture of Textile Products & Fibres (26)

The index of this group showed an increase of 53.72%, i.e., the index rose up from 249.521 to 383.553 gaining 134.032 points. The reason for the increase is the increase in GVO of coir yarn reported from Palm Fibres & Yarn Trading Company, Alappuzha.

### 7. Manufacture of Wood & Wood Products (27)

The index of this group recorded a 14.46 % of increase. During the year the Index moved from 73.820 to 84.497 due to the increase in GVO of Veneers Reported from Cochin Veneers, Mudikkal and of Plywood reported from Supreme Boards, Kannur.

### 8. Manufacture of paper & Paper products (28)

The index of this group rose from 235.172 to 253.274 gaining 18.102 points.

The 7.70% increase is due to the increase in GVO of periodicals & Advertisement reported from Mathrubhoomi Printing & Publishing Co. Kozhikkode and Malayala Manorama, Kottayam.

#### **9. Manufacture of Basic Chemicals & Chemical Products (30 )**

The index of this group showed a increase of 21.45 %.The index moved from 248.855 to 302.235 showing an increase of 53.88 points.

This is due to the impact of increase in GVO of Industrial Chemicals Reported from Hindustan Organic Chemicals Ltd., Eranakulam, Medicines & Allied Products from Vysali Pharmaceuticals, Edapally, and Keala Ayurveda Pharmacy, Angamaly and Other Chemical products reported from Kerala Chemicals & protiens Ltd. Koratty.

#### **10.Manufacture of Rubber, Plastics, Petroleum etc. (31 )**

The index of this group showed a increase of 28.36%. The index moved from 215.130 to 276.151 showing an increase of 61.021points. This is as a result of the increase in GVO of petroleum products reported from Cochin Refineries, Ernakulam,motor tyres from Appolo tyres, Perambra and that of Tread Rubber from MRF Ltd. Vadavathur & Elgi Tyres, Palakkad.

#### **11. Manufacture of Non-metallic Mineral Products (32 )**

The index recorded an increase of 18.07 %. The index moved from 259.533 to 306.425 gaining 46.892 points due to the increase in GVO reported from Travancore cement LTd. Nattakam and Malabar Cements Ltd., Walayar.

#### **12. Manufacture of Basic Metal & Alloys (33)**

This industry group showed a major increase of 41.48%, i.e., the index gained 88.03 points taking the index up from 212.206 to 300.236.The reason for this increase is the increase in GVO reported from Binani Zinc Ltd. Eranakulam.

### **13. Manufacture of Metal Products & Parts (34 )**

The index of this group increased from 184.139 to 217.409 gaining 33.27 points. This increase of 18.07 % is due to the increase3 in GVO reported from Steel Industrial Forgings Ltd. Thrissur.

### **14. Manufacture of Machinery and Equipments (35-36)**

The index rose from 292.606 to 340.118 gaining 47.512 points, i.e., a 16.24% increase. The increase in the GVO reported from OEN India Ltd., and Transformers &Electricals, Kerala Ltd. Angamaly pulled up the index.

### **15. Other Manufacturing Industries (38)**

This group showed an upward trend during the year. A change of 31.65 points rising from 254.804 to 286.454 marking a substantial increase of 12.42%. The increase in GVO reported from Anand Water Meter, Ernakulam and United Electricals, Kollam are the influencing factors.

### **16. Electricity Generation, Transmission and Distribution (40)**

This sector showed an increasing trend. The index rose from 172.966 to 208.589, an increase of 35.623 points, i.e., 20.60 %. The increase is due to the GVO increase reported.

Chart 1

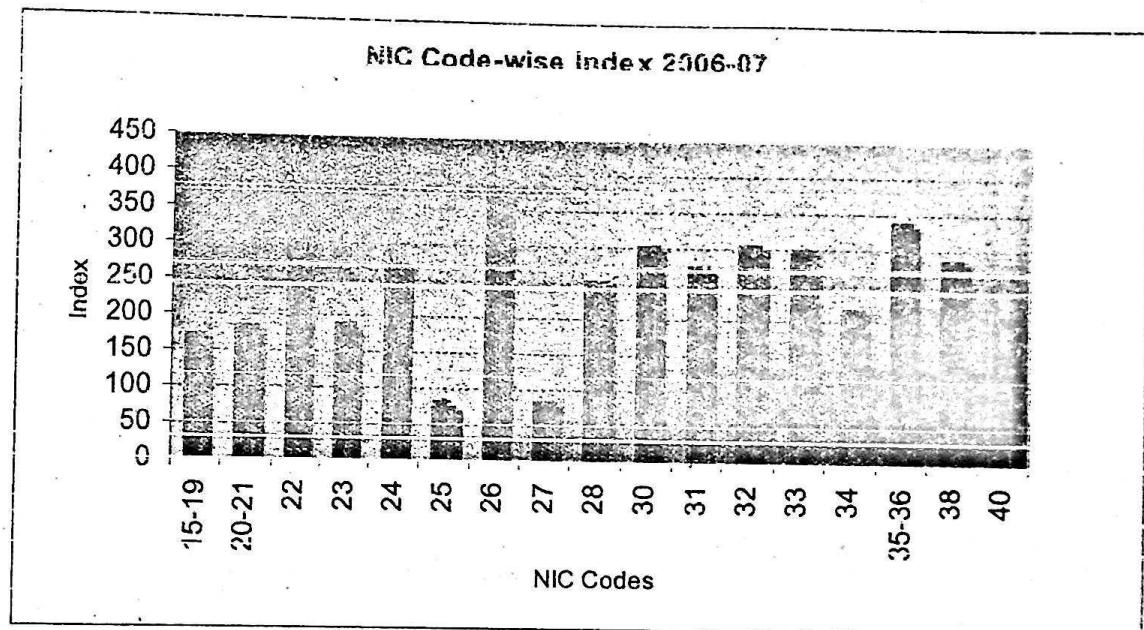
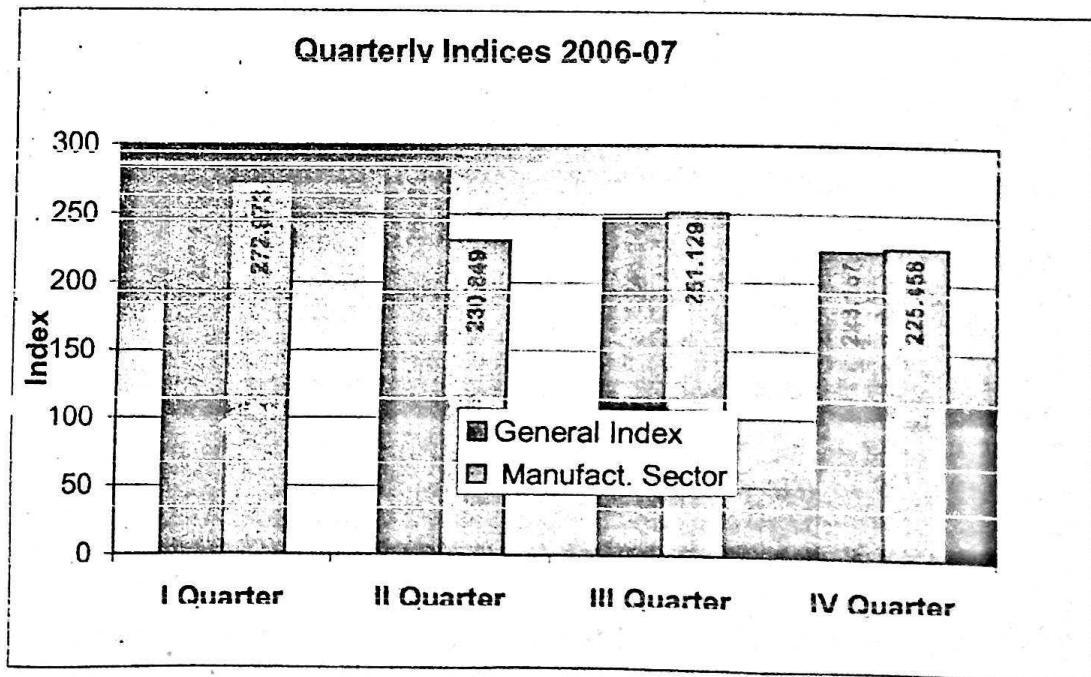


Chart 2



1227