

Discussion Paper No. 2/2003 (25)

October 2003

**An Analytical Study of the Growth Experience of the Small  
Scale Industries of Howrah and Burdwan Districts, 1988-  
2000**

---

**Nandita Basak**



Centre for Urban Economic Studies  
Department of Economics, University of Calcutta

Urb/2310  
**CUES LIBRARY**



Discussion Paper No. 2/2003 (25)

October 2003

**An Analytical Study of the Growth Experience of the Small  
Scale Industries of Howrah and Burdwan Districts,  
1988-2000**

**Nandita Basak**



Centre for Urban Economic Studies  
Department of Economics  
University of Calcutta  
1, Reformatory Street  
Kolkata 700 027  
INDIA

E-Mail : [cuescu@cal.vsnl.net.in](mailto:cuescu@cal.vsnl.net.in)

---

The author is Reader in Economics, Bethune College, Calcutta, presently a member of West Bengal College Service Commission, and an Honorary Associate, Centre for Urban Economic Studies. The paper is an outcome of a research project funded by the Centre.



AN ANALYTICAL STUDY OF THE GROWTH EXPERIENCE  
OF THE SMALL SCALE INDUSTRIES OF  
HOWRAH AND BURDWAN DISTRICTS  
1988-2000

Nandita Basak

The importance of the Small Scale Industries (SSI) in the industrial development is well accepted by the theoreticians as well as the planners. Special advantages of the small undertakings lie in the generation of employment at relatively low cost and in the utilization of local resources, skill and demand. This is specially so in the labour surplus economies with scarce capital resources.

✓ A well developed structure of small industrial enterprises not only involves a large number of small entrepreneurs, but they can create a chain of backward and forward linkages between agriculture and small industries (e.g. the agro processing units), service sector and the small industries (e.g. servicing and repairing shops) and the large scale factory sector and small industries (e.g. the ancillary works) (Dhar and Lydall, 1961). The Industrial Policy of India, 1956, put priority to the small-scale sector with the expectation that this will ensure some decentralization of industrial activity by creating low cost employment and utilizing local advantages. In addition to the financial assistance in the form of subsidized loan, protected market was ensured for the SSI sector by reservation of items. Registered small units were given, apart from subsidized loan, advantages in obtaining certain raw materials at controlled price. This provided motivation for registration.

Non-farm  
activi-  
ties  
Eco-  
nomics  
of  
nurserie  
+  
anima  
husban-  
dry  
+  
aqua-  
culture  
hatcherie

Following the recommendations of Abid Hussain Committee in 1997. Government raised the upper limit of investment in plant and machinery for small units and ancillary units from Rs. 60 lakhs and Rs. 75 lakhs to Rs. 3 crores; for the tiny units the limit was raised from Rs. 5 lakhs to Rs. 25 lakhs. The investment limit was reduced in the year 2000 from Rs. 3 crores to Rs. 1 crore. The limit for the tiny units remained the same.

In India, states achieving a good degree of SSI growth are Maharashtra, Tamil Nadu, West Bengal, Uttar Pradesh, Punjab, Gujrat. These six states account for 59% of total SSI units, 62% of total employment, 66% of total investment and 69% of gross



output of this sector. Experience confirms that the policy of reservation has significantly encouraged growth of this sector.

As to the question of management, there is predominance of individual ownership as well as partnership business. During the last decade the SSI units had extended their sphere of production from simple consumer goods and producers' goods of ancillary nature to the manufacture of the sophisticated items like the electronic control system, micro wave components, television sets and such other electronic gadgets. The present paper concentrates on the salient features of the growth pattern of the small scale industries in the two industrially advanced districts of West Bengal viz. Howrah and Burdwan. Being a part of the Kolkata industrial agglomeration, Howrah observes a very old tradition of SSI growth in the ancillary line of production showing a close tie between the large industrial houses and the small scale industries sector. The district of Burdwan is agriculturally prosperous and provides shelter to large number of large and small industries. The coalfields of Andal, Raniganj, the industrial cluster of Durgapur, Asansol together with the fertile agricultural belt with high population density, consist of the second largest urban agglomeration in West Bengal, the first being in the Kolkata metropolitan area. Thus, being endowed with a large market and an industrial environment the district observes very good scope of SSI activities.

The present study covers a period of 1988-1998 for Howrah district and 1988-2000 for the district Burdwan. For the collection of the primary level data the study depends on the Directorate of Cottage and Small Scale Industries, Government of West Bengal. Small Scale Industries registered annually during this period have been grouped with respect to the product composition, employment and value of fixed capital. Attention has been focused on aspects like (a) capacity of employment generation, (b) capital formation, (c) average annual addition to units, employment and investment according to product groups, (d) product diversification and changing relative importance of different industrial categories. In connection with the present liberalization policy of trade and industry, the special advantages enjoyed by this sector in terms of subsidy and reservation of items, have gradually been turned down. It is, therefore, of high relevance to examine the prospect of the SSI sector with respect to product diversification, capital formation and adoption of improved techniques without which they will not be able to compete in the free market.



While the SSI activity of the two districts under observation centre round (i) producers' goods industries (e.g. metal engineering) in ancillary line, (ii) consumer goods industries of food and non-food group and (iii) coal, chemical and construction related activities, it will be of great interest to study how the relative importance of those groups changed over time.

A close look at the dispersal of the small industrial units of West Bengal helps to understand the importance of the districts Howrah and Burdwan. Records of the third census of small scale industrial units (Table 1) show, the twin cities of Kolkata and Howrah jointly account for 35.4% of total SSI units of West Bengal and Howrah alone accounts for 16%. Burdwan district comes in the fourth position when all the districts are considered according to their relative share. The percentage share of Burdwan is 7%. This district shows a high percentage of SSI units having rural location (59.7%) which is significant for rural income generation and decentralized urban population. Units of Howrah are typically of urban origin, the share of those located in urban areas being 74.3%. In contrast with Howrah, availability of fertile, irrigated land is high in Burdwan thus providing direct links of small industries with the local agricultural activity through agro-processing activities. The ancillary and related small units of Howrah on the other hand enjoy the benefit of the concentration of medium and large size metal engineering factories in the twin cities. Other advantages and proximity to the port, good rail-road connection and availability of skilled labour.

Analyzing the product mix of the small industrial undertakings one can see, products of the SSI sector cover a very wide range. They reflect demand pressure and market linkages on the one hand and locational and other cost advantages on the other. So far as the districts of Howrah and Burdwan are concerned, demand linkages are observable among the ancillary type units engaged in manufacture of metal products, machine tools and parts. A large number of food processing units, particularly of rice mill type, came into existence in the agriculturally prosperous zone of Burdwan district. Growth of such units had direct feed back from the agricultural sector. Locational advantages are particularly noticed in the growth of numerous brick fields in and around the rural belt of Burdwan district. Availability of good quality clay, unskilled labour as well as increasing demand for construction materials in densely populated areas, were the major factors. The district of Burdwan hosts, in addition, numerous small textile



products, leather and wood products. The wide range of product variety observable in both the districts is, therefore, an outcome of both market linkages and cost advantages.

#### *Small Industries of Howrah 1988-1998*

Now let us consider the economic characteristics of the SSI units of Howrah district. Being located at the western bank of river Hooghly the district Howrah enjoys the access to the large industrial urban concentration of Kolkata. SSI units of Howrah have a long tradition and a good reputation as the supplier of metal casting and engineering products including nuts, bolts, machine parts, foundry material and various ancillary items. Such products had their outlet to the big engineering houses located in Howrah, Kolkata, Asansol, Durgapur and also outside West Bengal. Indian Railways provided a big market for light engineering and foundry products. A close examination of the product pattern reveals a number of features:

- (a) Predominance of the producers' goods with the specialization in metal casting products and machine parts is noticed.
- (b) The light consumer goods e.g. food processing, textiles, paper printing furniture etc. which usually occupy a good share in the SSI sector, were of relatively less importance. Share of this subgroup in fixed capital and employment did not exceed 10% of the total during the period under consideration (1988 to 1998).

We now consider the changing relative importance of different product groups in the SSI sector of Howrah (Table 2).

- (a) Dividing the period under consideration into two sub periods, one can notice a sharp decline in the share of metal-based products as regards investment and employment. Engineering products, however, observe unchanging share in fixed capital and increasing share in employment. The sub-group encompassing metal product and machineries shows a fall in capital share from 62.5% to 41% and a fall in employment share from 74% to 66%. Increasing relative share with respect to employment (11.4% to 14.7%) and fixed capital (16.3% to 40.2%) was significant in chemical based units engaged in production of synthetic and related goods. Construction based materials like brick, tiles, also show some increase in percentage share as to employment and fixed capital. Those units are typical in having linkages with household expenditure and generate income multiplication chains.



- (b) Average size of the units found from number of workers per unit was the largest in the brick-tiles and textile units. Those units are of typically labour intensive type (Table 3).
- (c) Capital consumption per worker is considered as one of the measures of strength of the unit. It was found that the traditional units (e.g. metal, engineering) enjoyed only moderate increase in capital intensity. Units engaged in production of brick-tiles, textiles, and chemicals showed significant improvement. The SSI sector as a whole observes increase in capital consumption per worker during the period (Table 3).
- (d) Performance of the SSI units of the district as regards annual average increase in investment and employment was far from satisfactory. Average addition to fixed capital annually in period 2 was less than one third of what it was in period 1. There was a decline in average annual addition to employment and number of units registered (Tables 3 and 4) from 1897 to 406 and from 350 to only 7 respectively.

The sluggish growth of the SSI sector in the district Howrah cannot be explained unless one takes into account the recent industrial scenario of the state of West Bengal in general and the state of the basic capital goods industries in particular. Small units producing metal products and machine tools occupy around 40% of capital and 66% of employment of the entire SSI sector of Howrah. Due to the ancillary nature they depend for the market of their product, on big industrial houses and the railways. During the depression years of 1970-s the basic metal group was badly affected and could not fully recover even in the later years. As a result the SSI units also suffered from shrinkage of the market for their products. A number of big engineering houses operating in West Bengal became sick. Furthermore, purchase orders from the railways also declined which aggravated the crisis (Office of the Development Commissioner, Small Scale Industries, 1977). The impact of withdrawal of protection under the reforms policy has been very serious on the small scale sector.

So far as the SSI units of Howrah are concerned a recent study by the Central Mechanical Engineering Research Institute (CMERI, 1980) finds that the metal and engineering industries of Howrah have been suffering from technological obsolescence. They badly need modernization and technological upgradation in a massive scale.



The report also finds that awareness about the sophisticated machines is so low that about 55% of the factories are not aware of advanced technology in the respective field of production. Around 62% of the machines are, on an average, 20 years old. Entrepreneurs lacking awareness, consider inadequacy of power, raw materials, fund and inconsistency of demand to be the most important reasons of capacity underutilization. The study also finds that the entrepreneurs have a sense of pride regarding the skill of their workers. This sometimes creates adverse atmosphere for technology upgradation. Moreover, the SSI sector suffers from lack of a formal system of exchanging information regarding operational trouble, rate of production, quality loss and demand problem. There is no such strong organization among the entrepreneurs.

#### *Small industries of Burdwan, 1988-2000*

The district of Burdwan provides very good example of industrial urban growth. The coalfield the integrated steel work supplemented by other heavy industries provide scope of healthy growth of small industries in ancillary and auxiliary line. The industrial town of Durgapur sheltered a large number of migrants and observed a concentration of metal-machinery-chemical industries. The industrial product mix is characterized by high degree of specialization, locational advantages and excellent inter-industry linkages. The basic or core industries led to the growth of varieties of linked activities and agglomeration economies. The industrial town influenced the industrial canvas of the region by way of trickle down effect.

The district not only hosts a large number of big and small industries but also has a good agricultural network. The eastern part of the district is agriculturally prosperous and contributes a good share to the agricultural output of the state. Agro-processing industries were numerous in number and had important feed back for the rural-urban linkages. Since more than two-thirds of the total area of the district are under agro-related activities, the feed back of the small industries from agriculture is quite strong. Regarding total investment in the SSI sector, about 50% of the value of plant and machinery belong to the food processing group. This group accounts for about 46% of total SSI sector employment. The share of this group increased during the period under consideration. Units producing coal and chemical products (e.g. coal tar, coke briquettes, agarbati) and non-metallic mineral products (e.g. refractories, construction materials) came up with the locational benefits particularly, availability of cheap raw material. Multiplication of such units reflect widening income and expenditure base of the region. Units under those two



groups are responsible for about 30% and 33% of investment and employment respectively. Refractories being located mostly in and around rural areas, they also show rural impact through job and income creation. The relative share of those groups increased over time.

A number of units came up in the metal and engineering group and were engaged in the manufacture of structural, foundry materials, machine parts and fabrication work. Such units usually enjoy material and market linkages with the large units in metal-chemical-engineering groups. For such SSI units, utilization of the by products of big factories and supplying ancillaries are very common. During the period under consideration, relative importance of metal-engineering units declined in terms of employment and investment (21.1% to 7.7% and 11.5% to 6.8% respectively. Since the present industrial scenario of Durgapur is in a depressed condition, most of the big public sector units being either closed or in the verge of closure, the small units depending on them are in a critical state.

Non-food consumer goods units and repairing and servicing units occupied relatively small importance in the district; miscellaneous group fell in importance. Coming to the salient features of the SSI sector of the district a number of points may be highlighted (Tables 2,5,6 and 7). In the first place an estimation of annual average addition to fixed capital for the entire SSI sector records an increase from Rs. 3.1 crores to Rs. 5.7 crores between 1988-93 and 1998-2000 (Table 5). There was significant increase in fixed capital in food processing, coal-chemical, refractory and building materials. Annual average addition to employment, however, declined for all industry groups. Employment created per year was 735 during 1998-2000 against 1470 in 1988-93 (Table 7). Low rate of employment creation with relatively high growth of capital with the increase in the capital consumption per worker has been by far the general trend in SSI sector. In a period of liberalization and open competition strengthening the capital base in order to improve the present state of technology was almost obligatory. Consumer goods units in non-food group and the repairing-servicing units show typically low capital-labour ratio. These units observed low average annual addition to capital stock.

Secondly, number of units registered each year on an average records a decline from 1393 to 237 from period 1 to period 3; unit size in terms of workers per unit



recorded significant rise in food-processing and coal-chemical group. Industry groups with high capital formation were also those with high employment size.

Unit size on an average increased for the district from 6.3 to 9.5 indicating strength of the sector (Table 6).

#### *Concluding observation*

After studying the experience regarding the growth of the SSI sector in the industrially advanced districts of Howrah and Burdwan. We reach the following observations:

1. The most remarkable feature has been very low rate of employment growth. There has been a decline in the annual average addition to employment and the number of units newly coming. Declining employment could be seen not only in the area under consideration; this is a common trend in the states where the SSI sector is quite important. Experience of the leading industrial states like West Bengal and Maharashtra confirms the same (Das, 2000). The trend being a general one, there are reasons to believe that withdrawal of the protective benefits and subsidies under the liberalization policies has played an important role behind the sluggish growth of the SSI sector.

In this context, we may refer to the findings of another study on growth experience of SSI during 1971-97 of West Bengal (Mukherjee, Das and Bhattacharya, 1999). It shows that at all-India level the growth of units and employment in the small scale industries has not been uniform in the post reform period (i.e., 1990-91 to 1996-97). Employment expansion has taken place at a much smaller rate than that for units. The study shows that in West Bengal, the rate of growth of small scale units was the lowest, about 2.6 percent a year - during 1982-1993. However, when we consider the period 1975-76 to 1996-97, it is found that West Bengal had much higher growth rates, 7.08% for units, and 8.71% for employment. Of course, the data for this period, taken from a different source, includes cottage industries also, and therefore are not strictly comparable. It may be interesting to note the district level results for the two districts of our study. Burdwan experienced above the state-average growth rates for both



employment (9.99%) and units (9.78%), while Howrah, that is located in Kolkata industrial area, has a slightly lower than average growth rate for units (7.84%) but a much lower growth rate (4.03) for employment (Mukherjee, Das and Bhattacharya, 1999: M-160-161).

2. In some selected fields of SSI activity in Burdwan, capital formation was fairly high during the period under consideration. But the SSI sector of Howrah performs very poorly regarding capital investment. Rate of fixed capital addition annually, witnessed sharp decline with a similar fall in the rate of employment and number of units newly coming. Inadequate demand from the large units, slowing down of the rate of investment followed by lack of modernization in the metal-engineering group were some of the reasons of the downturn in the traditional ancillary sector of this district.
3. Response to the market forces, e.g., demand pressure and locational advantages has clearly been observed in the SSI growth pattern. At least two factors can be identified to confirm this. First, a strong feed back from agricultural prosperity is seen from the steady growth of the agro-related units in Burdwan. Secondly, income expansion and related expenditure growth in multiplier chain had strong impact on construction related and consumer goods units; particularly the chemical based goods got a boost. Units producing refractory materials having locational benefits and demand pressure, flourished at a high rate. Brickfields being located in the rural surrounding region, utilize local resources, employ unskilled labour and transmit beneficial impact to the area through generation of income. This makes dispersed type of employment growth possible to some extent.

Poor performance of metal-engineering units of Howrah and Burdwan can be explained by stagnating condition of demand and poor industrial environment in the state. Demand for the ancillary products, foundry material, machine tools, etc. depends on the growth of steel-engineering sectors, railways and other capital goods sector. Unfortunately, the demand for such producers' goods has stagnated in the state. Increasing incidence of sickness in the organized manufacturing industries with underutilized capacities among others in steel-engineering industries, increasing competition faced by the steel sector and the railways,



declining importance of public sector industries are some of the factors responsible for dwindling demand for the products of SSI units.

While the metal and engineering based works are facing stagnation, chemical based and construction related groups of units in the small scale sector grew at a fairly high rate and observed increasing relative share in fixed capital coming up during the period. It seems that there has been a good scope for chemical based units in this state in the recent years after the emergence of the chemical complex in Haldia.

4. The product pattern of both the districts shows prevalence of the traditional items. Varieties of non-traditional and sophisticated items (e.g. electronic gadgets and assembly work) have not entered into the product range, particularly so in Howrah.

To revamp the metal based and the machine tool industries of Howrah it is high time to have necessary technology upgradation. Government initiative and continuous campaign for awareness are needed as well. Exploring new areas of activity through product diversification and augmentation of the capital base of the existing units are necessary. Import liberalization policy and withdrawal of protection are bringing destruction for the SSI units. Reorientation at policy level will be highly advisable for encouraging the SSI activities.



Table 1

## Districtwise dispersal of small scale units, West Bengal:

## Results of the third census of SSI

Sl. No.	Districts	Total units	% share
1	Bankura	1690	3.7
2	Birbhum	2088	4.5
3	Burdwan	31280	7.1
4	Kolkata	8897	19.4
5	Coochbehar	593	1.3
6	Darjeeling	696	1.5
7	West Dinajpur	781	1.7
8	Hooghly	3049	6.6
9	Howrah	7369	16.0
10	Jalpaiguri	1329	2.9
11	Malda	1060	2.3
12	Midnapur	4140	9.0
13	Murshidabad	1770	3.9
14	Nadia	1981	4.3
15	South 24-Parganas	2455	5.3
16	Purulia	1570	3.4
17	North 24-Parganas	3206	7.0
	Total	45954	100.0

Source: Census of the Small Scale Industries, 1993



**Table 2**  
**Relative share of the industrial groups in investment and employment**  
**of the SSI sector 1988-2000 : Howrah and Burdwan (percentage)**

<b>Howrah district</b>				
Product groups	Investment		Employment	
	1988-1993	1994-1998	1988-1993	1994-1998
Food processing and related product	5.6	2.9	1.9	2.2
Non-food consumers goods	13.0	7.2	6.3	6.2
Coal chemical product	16.3	40.2	11.4	14.7
Construction materials	1.3	6.8	4.6	4.6
Metal engineering	62.5	41.1	74.0	66.0
Others	1.1	0.6	1.3	3.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<b>Burdwan district</b>						
Product groups	Investment			Employment		
	1988-1993	1994-1997	1998-2000	1988-1993	1994-1997	1998-2000
Food processing and related product	50.4	53.1	52.7	32.5	40.1	45.9
Non-food consumers goods	3.1	3.3	5.8	7.6	9.1	6.8
Coal chemical product	7.7	7.4	8.1	7.9	6.2	11.3
Construction materials	10.8	7.8	21.3	19.3	22.5	22.1
Metal engineering	11.5	17.7	6.8	21.1	13.4	7.7
Others	16.3	10.7	5.3	11.2	8.5	6.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Source* : Directorate of Cottage and Small Scale Industries, Government of West Bengal, Kolkata



**Table 3**  
**Capital-labour ratio and average size of the units registered**  
**in the SSI sector between 1988 and 1998**

District : Howrah								
Product group	Unites registered (number)				Capital-labour ratio (Rs. 000)		Average unit size (number)	
	Period 1		Period 2		Period 1	Period 2	Period 1	Period 2
	a	b	A	B				
Food processing and related products	49	8.0	8	1.6	79.5	52.4	4.3	5.6
Textile products	65	11.0	14	3.0	12.2	46.7	21.0	8.9
Wood products furniture	23	4.0	4	1.0	76.1	6.5	6.6	4.2
Paper printing	55	9.0	8	1.6	56.4	22.4	3.8	5.2
Leather product	7	1.0	1	0.2	6.8	1.2	5.1	4.0
Coal products chemical products	241	40.0	47	9.4	38.3	109.4	5.4	6.3
Brick-tile, construction and related products in non-metal group	41	5.0	8	1.6	7.4	59.8	12.8	11.6
Metal product	619	103.0	61	12.0	24.9	31.4	6.8	7.6
Machines and parts in groups excluding transport and electricals	765	127.0	159	32.0	19.5	22.7	4.2	4.4
Transport and electrical machines and parts	204	34.0	32	6.4	22.7	17.4	5.4	5.6
Repair and servicing	26	4.0	3	0.6	22.7	2.5	4.8	11.7
Miscellaneous	5	1.0	-	-	22.0	14.6	5.4	5.2
<b>Total</b>	<b>2100</b>	<b>350.0</b>	<b>351</b>	<b>7.0</b>	<b>26.7</b>	<b>40.2</b>	<b>5.4</b>	<b>5.8</b>

Notes: (i) Period 1: 1988 to 1993, (ii) Period 2: 1994 to 1998

a: Total ; b: Average annual addition

Source: As in Table 2



**Table 4**  
**Investment and employment**  
**in the SSI unites registered between 1988 and 1998**

District : Howrah									
Product group	Fixed capital (Rs. 000)				Employment No.				
	Period 1		Period 2		Period 1		Period 2		
	a	B	a	b	a	b	a	b	
Food processing and related products	16935	2822	2359	472	213	35	45	9	
Textile products	16700	2783	11493	1168	1365	227	125	25	
Wood products furniture	11493	1915	110	22	151	25	17	3	
Paper printing	11393	1899	939	188	202	34	42	8	
Leather product	246	41	5	1	36	6	4	1	
Coal products chemical products	49789	8298	32745	6549	1299	216	298	60	
Brick-tile, construction related products in non-metal group	3882	647	5557	1111	525	87	93	19	
Metal product	102844	17141	14484	2897	4134	689	461	92	
Machines and parts in groups excluding transport and electricals	62076	10346	15815	3163	3179	530	698	140	
Transport and electrical machines and parts	25138	4190	3129	626	1110	185	180	36	
Repair and serving	2842	474	87	17	125	35	21	7	
Miscellaneous	593	99	453	91	27	4	31	6	
<b>Total</b>	<b>303931</b>	<b>50655</b>	<b>81523</b>	<b>16305</b>	<b>11385</b>	<b>1897</b>	<b>2029</b>	<b>406</b>	

Notes : As in table 3

Source : As in Table 2

Se  
 Inve  
 Ann  
 cror  
 Emp  
 Ann  
 Num  
 Ann  
 Ave  
 Capi  
 Sou



**Table 5**  
**Selected economic characteristics of SSI units registered between 1988 and 2000**

	Howrah district		Burdwan district		
	1988-1993	1994-1998	1988-1993	1994-1997	1998-2000
Investment in fixed capital (Rs. crores)	30.4	08.1	18.1	13.8	17.1
Annual average addition to fixed capital (Rs. crores)	05.1	01.6	03.1	03.4	05.7
Employment (No.)	11385	1897	8817	3741	2258
Annual average addition to employment (No.)	2029	406	1470	935	753
Number of units registered	2100	351	1393	462	237
Annual average addition to units (No.)	350	7	232	77	78
Average employment per unit (No.)	05.4	05.8	06.3	08.1	09.5
Capital consumption per workers (Rs. 000)	26.7	40.2	20.5	36.8	75.6

*Source:* Directorate of Cottage and Small Scale Industries, Government of West Bengal, Kolkata.



Table 6

Capital-labour ratio and average size of the units registered in the SSI sector between 1988 and 2001  
District : Burdwan

Product group	Units registered (Number)						Capital-labour ratio (Rs. 000)						Average unit size (Number)					
	Period 1		Period 2		Period 3		Period 1		Period 2		Period 3		Period 1		Period 2		Period 3	
	a	b	a	b	a	b	1	2	3	1	2	3	1	2	3	1	2	3
Food processing and related products	432	72	145	36	82	27	31.9	48.8	86.8	6.6	10.3	12.6						
Textile products	56	9	37	9	14	4	6.7	13.5	19.0	4.1	4.4	5.0						
Wood products furniture	39	6	18	4	4	1	4.1	5.9	6.5	5.6	4.3	6.2						
Paper printing	39	6	16	4	6	2	13.4	23.0	185.7	4.0	4.2	7.5						
Leather product	14	2	06	1	3	1	17.9	5.8	2.1	4.6	5.8	5.0						
Coal products chemical products	120	20	27	7	29	10	18.7	43.8	54.1	5.8	8.6	8.8						
Brick-tile, construction related products in non-metal group	107	18	32	8	32	11	11.6	11.7	72.8	15.9	26.3	15.6						
Metal product																		
Machines and parts in groups excluding transport and electricals	343	57	94	23	36	12	11.2	48.4	67.0	5.4	5.3	4.8						
Transport and electrical machines and parts																		
Repair and serving	178	30	38	9	18	6	8.4	7.6	13.2	4.1	4.2	3.9						
Miscellaneous	54	9	49	12	13	4	91.6	90.9	117.5	4.7	3.3	5.4						
Total	1393	232	462	77	237	78	20.5	36.8	75.6	6.3	8.1	9.5						

Notes : Period 1 : 1988-1993; Period 2 : 1994-1997 and Period 3 : 1998-2001; a : Total and b. Average annual addition

Source : Based on data obtained from Directorate of Cottage and Small Scale Industries, Government of West Bengal, Kolkata



Table 7

**Investment and employment in the SSI units registered between 1988 and 2001**  
**District : Burdwan**

Product group	Fixed capital (Rs. 000)						Employment (Number)								
	Period 1		Period 2		Period 3		Period 1			Period 2			Period 3		
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	
Food processing and related products	91294	15216	73172	18293	90044	30015	2862	477	1500	375	1037	346			
Textile products	1532	255	2194	548	1331	444	229	38	163	41	70	23			
Wood products furniture	896	149	454	113	163	54	218	36	77	19	25	08			
Paper printing	2089	348	1546	386	8356	2785	156	26	67	17	45	15			
Leather product	1145	191	204	51	30	10	64	10	35	09	14	05			
Coal products chemical products	13025	2170	10210	2552	13782	4594	696	116	233	58	255	85			
Brick-tile, construction related products in non-metal group	19625	3271	9851	2463	36349	12116	1697	283	843	211	499	166			
Metal product															
Machines and parts in groups excluding transport and electricals	20866	3477	24362	6090	11589	3863	1859	310	503	126	173	58			
Transport and electrical machines and parts															
Repair and serving	6110	1018	1217	304	924	308	730	122	159	40	70	23			
Miscellaneous	23363	3894	14633	3658	8222	2741	255	42	161	40	70	23			
Total	180945	30157	137843	34460	170790	56930	8817	1470	3741	935	2258	753			

Notes : As in Table 6.

Source : Directorate of Cottage and Small Scale Industries, Government of West Bengal, Kolkata



### References

- Central Mechanical Engineering Research Institute, Durgapur (1980), "Assessment of R.D. Needs of Howrah Small Scale Industries".
- Das, Sandip (2000), "SSI to Have Tough Time after QR Phase Out", Business Standard, December 20.
- Dhar, P.N. and H.F. Lydall (1961) "The Role of Small Enterprises in Economic Development", New Delhi.
- Mukherjee, R., P.K. Das, U.K. Bhattacharya (1999), "Small Scale Industries in West Bengal, 1971-97: Data Analysis for Study of Growth", in Economic and Political Weekly, Vol. 34, No. 38.
- Office of the Development Commissioner, Small Scale Industries (1977), "Capability Profile of SSI in Howrah and Burdwan".