

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS AND MANAGEMENT

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INFORMAL SMALL SCALE BRICK-KILN ENTERPRISES IN GULBARGA URBAN AREA – AN ECONOMIC ANALYSIS

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ABSTRACT

The present study is attempts to examine the performance of brick-kiln enterprises in Gulbarga urban area. Brick-kiln enterprises provide employment to large number of workers. It is one of the labour intensive industries and used the local resource. One half of the world's population, approximately 3 billion people on six continents, lives or work in building constructed of earth and 58 percent of all building in India are of mud bricks. The brick-kiln activities are generated income and output. The large number of the brick-kiln units are face many problems in the study region viz., raw materials, product market, credit facilities, and technology. The NBFCs and some of the Nationalised banks have lending money to brick-kiln industry. The brick-kilns are in the urban informal sector but they are solely responsible for rapid expansion of urban area and faster growth of construction activity in the Gulbarga city.

KEYWORDS

Brick-Kiln Enterprises, Gulbarga, Employment, Labour.

INTRODUCTION

India, though a fast growing economy, yet contains a big size of production in the informal sector. This production, even if valued at current prices, would be in several not thousand but lakhs and lakhs of crores of rupees. The informal sector is like a shadow following the formal or organised sector. The size of informal sector is substantially great especially in the semi urban and moffosil cities. The sector also provides employment to millions of people. As these activities, and originated output, income and employment, are undertaken by an individual or group of individuals not coming under the regulation of any of the formal authorities, may be defined as informal sector¹. Similarly, such activities are also the activities which do not engage labour from labour market. The firms also do not resort to formal borrowing from banks or any other NBFCs. The informal sector is also called unorganized sector². Because, the production units are totally independent and manned by the persons individually. These persons have no organisations or associations. There is also more often than not, no unique place or area either for location or for getting production inputs.

There are also no labour unions or association among the labourers. Some of the units are in close clusters or greatly scattered. Besides, it is to be noted that there is great demand for bricks. It may be termed as ever green demand for bricks because "one half of the world's population, approximately 3 billion people on six continents, lives or works in buildings constructed of earth. Approximately 58% of all buildings in India are of mud brick and a growing construction boom in India, coupled the inability of peasants to support themselves by farming is turning residents from the country side into the brick making business.

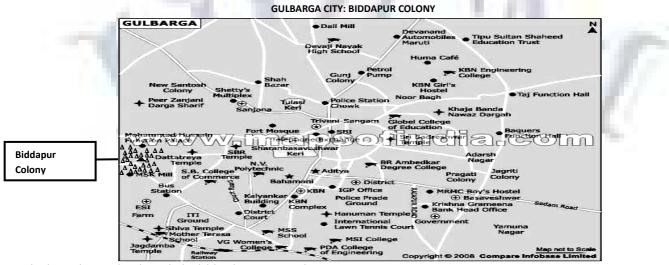
However, hand made mud brick are now often dried and fired in inefficient coal fueled kilns that make the work dangerous and pollute the environment consuming 200 tonnes of coal for every million brick production³".

Since the brick manufacturing is an informal or unorganized activity, quite surprisingly there is no organised or formal literature available on this activity⁴. Therefore, the purpose of this paper is to make an economic analysis of brick-kiln industry existing in Gulbarga urban area. In that the attention is given to details of production and employment in brick-kiln industry. For convenience it is divided into following parts: The first part provides information regarding the nature of the survey, location, nature of data etc adopted in the study. Production and cost of bricks manufacturing units are noted in part-II and III respectively. Wages and employment aspects of bricks units are discussed in part-IV. Brick incomes are noted in part V, a critical evaluation and emerging conclusion are noted in part-VI.

NATURE OF THE SURVEY

Gulbarga is a big district and situated in the northern part of Karnataka State. It occupies a central place with Bidar to its north and Raichur to its south. It lies between east longitude 76°04' and 77°42' and north latitudes.

The average annual rainfall in the district is 715.5 mm (28.17'). The mean daily maximum temperature during this month is 40.6°C (105.1°F) and the mean daily minimum temperature is 25.9°C (78.6°F). The period from December to May is the driest part of the year when the relative humidity in the morning is between 40 and 60 percent, and in the afternoons above 20 to 30 percent. Overlying the Deccan traps and the Bhimas, there are thick spreads of black soil, some of which are as much as 30 feet in Gulbarga district. Therefore, we have selected the brick making activity in Gulbarga city (see from Gulbarga District Gazetteer 2005). The huge unemployment among the unskilled workers, the black soil available for brick making and not only hot temperature but less number of rainy days, the Gulbarga city is ideally suited for brick making in atleast two seasons of a year.



N.B: The dots in the triangle indicate the brick-kiln taken as our sample

There is no published data or information about the brick making units. Further, the brick makers do not keep any record relating to the entire process of brick making and marketing. As they are managed informally, there is no record kept by them regarding the inputs, number of labourers employed, the materials used, the inventory of bricks, output sold, price that is fixed and income generated. The brick-kilns are also unorganised in terms of location, the source of basic input mud, coal, ash and water etc. Therefore in order to get the data and information, a detailed questionnaire has been personally administered to each brick manufacturer. For the purpose of the study, we have selected 30 units on the random basis. In fact there are about 85 units but 50 of them have been shifted to far off places. Because, the area has been taken of by government and have constructed a High Court Bench of Karnataka. All the sample units are located in the North West (Biddapur Colony see map) of Gulbarga city have been selected for purpose of the present study, all of them are located in one cluster. The brick manufacturers being in the informal sector were very shy in the initial stage but in the due course of the survey they tried to give correct data and information as much as possible⁵.

The survey schedule was designed to collect information among other things, the age, size of the family, educational level, number of years in brick making, place of mud available and its distance, source of water and its cost, the coal and its quantity obtained from the sources (Shahabad, Wadi, Raichur, Hyderabad and Sedam). The number of persons, nature of employment provided, type of wage system prevailing in brick-kiln, cost and method of transportation of mud and bricks, price of bricks, etc. The data relating to daily capacity of production, days of production have been given by them with some approximation. The data relating to income and expenditure have been taken as per their reporting. Similarly price of raw materials cannot be worked out as they do not keep records on the material. They do not have precise figures relating to fuel cost, water charges, transport charges etc. Therefore, the economic analysis of these units largely depend on physical production, income per day, expenditure per day, price per brick and wages paid to the workers (Ad -Valorem and specific)⁶ information given by brick manufacturer and workers.

PRODUCTION



SYSTEMATIC ARRANGEMENT OF BRICKS

The brick manufacturing in Gulbarga is completely indigenous and manual. In other words it is entirely based on labour and no technique or technology has been adopted. The main inputs of brick output are mud, water, coal, ash and rock etc. Besides, it is not possible to arrive at a segregate the input cost, either itemwise or all the input together⁷. The water is no less important input for making bricks. However, there are number of problems and difficulties in calculating water charges⁸. The quantity of coal and ash used in burning and making the bricks is also an important input. However calculating cost of coal and ash is no less problematic, atleast in working out the cost⁹. However, with the help of information given by unit owners attempt has been made to calculate the quantity of bricks produced by them during one season that is 2007-2008. Indeed, it has been found from our survey that, the brick manufacturers keep records neither relating to the value or cost of inputs (itemwise, unitwise) to nor the value of output.

Brick line	Daily Production	No of Days	Total Production of Bricks	Percentage
1	10000	180	18.0	1.0
2	6000	180	10.8	5.0
3	6000	150	9.0	4.4
4	5000	180	9.0	4.4
5	5000	180	9.0	4.5
6	5000	120	6.0	3.0
7	5000	180	9.0	4.5
8	5000	180	9.0	4.4
9	5000	180	9.0	4.4
10	5000	180	9.0	4.4
11	5000	120	6.0	3.0
12	4000	180	7.2	3.6
13	4000	150	6.0	3.0
14	4000	210	8.4	4.1
15	4000	180	7.2	3.6
16	4000	210	8.4	4.1
17	3500	180	6.3	3.1
18	3500	240	8.4	4.2
19	3000	150	4.5	2.2
20	3000	210	6.3	3.1
21	3000	180	5.4	2.6
22	3000	210	6.3	3.1
23	3000	180	5.4	3.2
24	3000	150	4.5	2.2
25	3000	210	6.3	3.1
26	3000	150	4.5	2.2
27	3000	210	6.3	3.1
28	2500	180	4.5	2.2
29	2000	240	4.8	2.3
30	2000	210	4.2	2.0
T	otal	5460	218.7	100.00

TABLE - 01: PRODUCTION OF BRICKS

Source: Field Survey.

Similarly they do not also keep records relating to output per day and number of days that production has been undertaken. All these are simply based on their personal experience and memory on which we had to depend. However the total production of these sample units has been 9.0 lakhs bricks produced by each

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one of them. The other remaining 21 manufacturers total seasonal output is from 4-8 lakhs bricks. On the whole, the 30 sample units have manufactured 218.7 lakhs bricks during the year 2007-08. As the production data have been subject to frequent revisions due to the information given by producers, it may be observed from the table that there is only one producer whose daily production is 10,000 bricks and his production period is for 180 days. As a result, his total production is 18.0 lakhs. Similarly the second brick manufacturers daily production is 6000 and total brick production is 10.8 lakhs bricks. There are about 7 brick manufacturers serial no. (3, 4, 5, 7, 8, 9 and 10) whose daily production is different from each other. Further, the number of days of production is also differing between them.

COST OF BRICK MANUFACTURING

The calculation of the cost of brick manufacturing is a matter of great nightmare for a researcher. Because not only brick manufacturing is indigenous and manual, it is a lengthy process of organising several activities stage by stage. For example to begin with the brick- kilns require the main input that is the mud. The unit owners have to pay for the mud (i.e., annually) the payment for the mud is a contract payment of Rs.25000 to 50000 per acre. Further the mud has to be transported to the place of brick manufacturing for which they have to pay the transport cost. Similarly they have to pay for the water. The handmade bricks have to be made and burnt with the help of ash and coal. Therefore, there is the cost of coal as other item enters into the total cost of brick manufacturing. At every stage of calculation of cost the confirmation from the unit owners is very essential. For calculation of cost might likely to go wrong. Hence with these preliminaries the cost of production for 30 units of our sample has been attempted in Table-02.

It is evident from the Table-02 that there are four types of costs (excluding labour cost which is noted in the following part) involved in the making of bricks. The total cost of coal is about Rs.107.02 lakhs. Among the 30 units of our sample except the first, which has the cost of coal of Rupees 9 lakhs all other units have the cost of coal ranging between Rs. 2–5 lakhs. The unit No. 29 has the lowest cost of coal i.e., Rupees 0.24 lakh only. The water is another important input used in the process of brick making. The brick makers have differing arrangement of getting water to the kiln. For example some units get the water through the pipeline and the source is a little away from the place of brick making. Some brick- kilns have their own borewells, whereas some of the brick manufacturers jointly share the cost of electricity in pumping the water from the borewell. The total cost of water for the sample units has been Rupees 21.06 lakhs. All the brick- kilns have very low cost of water. Because the underground water is the only source from which they get it right at the place of brick manufacturing¹⁰

Brick line	Cost of Coal *	Cost of water **	Cost of Mud Rs. In Per Acre	Transportation cost of mud ***	Total Cos
1	9.00	1.80	0.50	6.00	17.3
2	5.40	1.08	0.45	3.60	10.53
3	4.50	0.90	0.46	3.00	8.86
4	4.50	0.90	0.40	3.00	8.8
5	4.50	0.90	0.40	3.00	8.8
6	3.00	0.60	0.41	2.00	6.01
7	4.50	0.90	0.42	3.00	8.01
8	4.50	0.90	0.40	3.00	8.8
9	4.50	0.90	0.41	3.00	8.81
10	4.50	0.90	0.40	3.00	8.8
11	3.00	0.60	0.40	2.00	6
12	3.60	0.72	0.30	2.40	7.02
13	3.00	0.60	0.30	2.00	5.9
14	4.20	0.84	0.03	2.80	7.87
15	3.60	0.72	0.30	2.40	7.02
16	4.20	0.84	0.30	2.80	8.14
17	3.15	0.63	0.30	2.10	6.18
18	4.20	0.84	0.29	2.80	8.13
19	2.25	0.45	0.31	1.50	4.51
20	3.15	0.63	0.30	2.10	6.18
21	2.70	0.54	0.33	1.80	5.37
22	3.15	0.63	0.30	2.10	6.18
23	2.70	0.54	0.32	1.80	5.36
24	2.25	0.45	0.30	1.50	4.5
25	3.15	0.63	0.25	2.10	6.13
26	2.25	0.45	0.30	1.50	4.5
27	3.15	0.63	0.30	2.10	6.18
28	2.25	0.45	0.25	1.50	4.45
29	0.24	0.48	0.25	1.60	2.57
30	2.10	0.42	0.25	1.40	4.17
Total	107.02	21.06	9.93	72.90	210.91

TABLE - 02: COST OF BRICKS MANUFACTURING (RS. IN LAKHS)

Note:

* RE 0.50 per brick is the cost of coal.

** The cost of water is 10 paise per brick

*** Rs. 500 per tractor of mud and divided by 1500 bricks one tractor.

The main input for making mud bricks is the mud. However, the mud is not available for the brick- kilns in the close by area, besides the mud is not available in the guantity that the brick-kiln owners require. That means they have to purchase the mud from the land owners who lease the land on a contract sum for the whole season. The total cost of mud of the 30 sample units has been Rs. 9.93 lakhs. Most of the brick makers pay Rupees 25000 – 50000 per season, per acre depending upon the location of the land. The transportation of mud from its place to the place of brick making is a very serious problem, because the brick-kiln owners do not have their own means of transport. They have to hire the tractors for this purpose. The tractor owners charge Rs. 500 per trip excluding the labour payment. The total cost of transporting mud by the sample brick-kiln owners is rupees 9.93 lakhs. The first sample unit has the highest transport cost of mud of Rupees 6.0 lakhs whereas 30th sample unit has the lowest cost of Rupees 1.4 lakhs. If we add up all the costs such as cost of coal, cost of mud, cost of water and cost of transport of mud we arrive at the total materials cost of making bricks, as we look at the table-02. The total material cost of bricks for the 30 units is Rupees 210.91 lakhs.

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WAGES AND EMPLOYMENT



MANUAL PREPARATION OF BRICKS

As it is an informal activity, the brick manufacturing has its own wage cost to be included in the total cost. It provides wage employment to a large number of people at different stages of brick making.

The loading and unloading of mud provides opportunity to a group of people if the mud has to be transported by vehicles. In addition to wage employment for team workers the conversion of soil into soaked mud provides employment to 1 or 2 male and large number of female workers who make soaked mud fit for preparing raw bricks. The burning stage of bricks also needs some persons to be employed. The burnt bricks can be not spread to a great length of area.

Brick Unit	Regu	lar W	orkers	Contracted Wage			Total Wage Cost		
	М	F	Total	М	F	Total	М	F	Total
1	12	3	15	16000	14000	30000	192000	42000	234000
2	8	4	12	15000	9000	24000	120000	36000	156000
3	4	3	7	13000	12000	25000	52000	36000	88000
4	7	3	10	12000	8000	20000	84000	24000	108000
5	5	4	9	11000	10000	21000	55000	40000	95000
6	5	3	8	14000	12000	26000	70000	36000	106000
7	5	3	8	13000	12000	25000	65000	36000	101000
8	13	3	16	15000	10000	25000	195000	30000	225000
9	7	4	11	13000	12000	25000	91000	48000	139000
10	4	3	7	12000	12000	24000	48000	36000	84000
11	1	1	2	15000	10000	25000	15000	10000	25000
12	5	4	9	13000	12000	25000	65000	48000	113000
13	4	3	7	150 <mark>00</mark>	10000	25000	60000	30000	90000
14	6	3	9	15000	10000	25000	90000	30000	12000
15	1	1	2	13000	12000	25000	12000	12000	25000
16	1	1	2	13000	12000	25000	13000	12000	25000
17	1	1	2	12000	8000	20000	12000	8000	20000
18	3	2	5	8000	9000	17000	44000	18000	62000
19	2	2	4	13000	12000	25000	46000	24000	50000
20	2	1	3	12000	8000	20000	24000	8000	32000
21	2	1	3	12000	10000	22000	24000	10000	34000
22	2	2	4	14000	11000	25000	28000	22000	50000
23	7	3	10	12000	12000	24000	84000	36000	120000
24	4	3	7	12000	10000	22000	48000	30000	78000
25	3	2	5	14000	12000	26000	42000	24000	66000
26	3	3	6	13000	11000	24000	39000	33000	72000
27	3	3	6	13000	12000	25000	39000	36000	75000
28	2	1	3	13000	14000	27000	26000	14000	40000
29	4	3	7	12000	12000	24000	48000	36000	84000
30	3	3	6	16000	8000	24000	48000	24000	72000
Total	129	76	205	394000	326000	720000	1779000	829000	248100

Source: Field Survey.

NOTE: Wage rate per day for Male Rs. 120, Female RS 80 Wage paid to workers on the basis of no. of bricks precisely Rs. 160 for 1000 bricks for calculation see table one of column No. 4 part 2 above

Therefore the burnt bricks have to be arranged in a small place in a systematic manner. This, too provides employment to men and women. Lastly, when the bricks are sold, the bricks from the brick-kiln area have to be loaded in a tractor or truck. This too provides wage employment to men and women alike. Thus, the brick-manufacturing is completely labour intensive industry especially in the urban and semi urban cities such as Gulbarga. The brick making calls for separate wage cost in the process of production and sale of bricks. Therefore number of persons (male and female) employed and amount of wage paid by our sample brick manufacturers has been discussed in the following. For convenience the wage costs have been noted in 2 tables. The table 3-A represents the number of persons employed and contractual wages paid. They are known as regular workers. Because for the entire period of production they receive contracted or negotiated sum of money.

These workers include both male and female. For example the first brick-kiln owner provides employment to 15 persons, among the 15 there 12 male and 3 female. Similarly he gives contracted or negotiated total wage for the production season 16000 per male and 14000 for per female. Thus if we consider all the 30 units the regular employment is 129 male and 76 female. The total contract wage cost of both male and female for 30 units is Rs.2481000 as could be seen in the table-3(A) above. The approximate per head wage is Rs.12102.439. For each one of the regular worker similarly regular wage cost per unit is Rs.82700. besides, the regular workers the brick manufacturers provide daily wage employment to male and female workers. This cost situation for 30 brick-kilns due to providing wage employment is noted in Table-3(B).

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories There are 321 daily wage earners in the 30 sample brick-kilns. Among them, the male workers are 145 and 176 are the female workers. The daily wage for every male worker is Rs.120 and for female workers Rs.80 is paid per day. If, we see column No. 3 of the above table it gives the information about the number of days that the workers have worked. Accordingly the total wage cost for 30 units is Rs.2985600. In addition to daily wage, these workers also get brick based wage of rupees 160 for every thousand bricks. This wage cost is composite cost it is not possible to separate the payment made to regular and daily workers. Further it is also not possible to be imputed to male and female workers. Therefore, for convenience we have called it 'brick based wage cost' which has been given in Col. 6 of table 3(B).

TABLE – 3 (B): WAGE COST											
Brick units	Daily Wage Earners		Daily Wages (in Rs.)			No of Days	Daily wages total			Brick Based Wage Payment	
	м	F	Т	М	F	Т	Total Days	М	F	Т	
1.	8	12	20	960	960	1920	100	96000	96000	192000	2880000
2.	10	8	18	1200	640	1840	90	108000	57600	165600	161280
3.	4	4	8	480	320	800	65	31200	20800	52000	144000
4.	6	9	15	720	720	1440	80	57600	57600	115200	144000
5.	6	5	11	720	400	1120	120	86400	48000	134400	144000
6.	4	8	12	480	640	1120	60	28800	38400	67200	96000
7.	4	8	12	480	640	1120	90	43200	57600	100800	144000
8.	7	12	19	840	960	1800	100	84000	96000	180000	144000
9.	11	8	19	1320	640	1960	60	79200	38400	117600	144000
10.	4	4	8	720	320	1040	70	50400	22400	72800	144000
11.	4	2	6	480	160	640	85	40800	13600	54400	96000
12.	5	6	11	720	400	1120	90	64800	36000	100800	144000
13.	4	4	8	480	320	800	120	57600	38400	96000	96000
14.	6	8	14	720	640	1360	65	46800	41600	88400	134400
15.	2	4	6	240	320	560	70	16800	22400	39200	115200
16.	3	2	5	360	160	520	90	32400	14400	46800	134400
17.	1	5	6	120	400	320	120	14400	48000	62400	100800
18.	2	3	5	240	240	480	60	14400	14400	28800	134400
19.	2	4	6	240	320	560	90	21600	28800	50400	72000
20.	6	3	9	720	240	960	120	86400	28800	115200	100800
21.	4	2	6	480	160	640	100	48000	16000	64000	86400
22.	2	4	6	240	320	560	90	21600	28800	50400	100800
23.	6	9	15	720	720	1440	80	57600	57600	115200	86400
24.	4	9	13	480	720	1200	120	57600	86400	144000	72000
25.	5	8	13	600	640	1240	90	54000	57600	111600	100800
26.	4	4	8	480	460	960	120	57600	55200	112800	72000
27.	4	6	10	480	480	960	150	72000	72000	144000	100800
28.	6	3	9	720	340	96 <mark>0</mark>	120	86400	40800	127200	72000
29.	5	8	13	600	640	1240	90	54000	57600	111600	76800
30.	6	4	10	720	320	1040	120	86400	38400	124800	672000
Total	145	176	321	17760	14240	31720	2825	1656000	1329600	2985600	6713280

Source: Field Survey.

NOTE: Wage rate per day for Male Rs. 120, Female RS 80 Wage paid to workers on the basis of no. of bricks precisely Rs. 160 for 1000 bricks for calculation see table one of column No. 4 part 2 above

The total brick based amount for 30 units is Rs.6713280. The last column of table-3(B) gives the total wage cost including the wage cost of table-3(A) and 3(B) respectively. Total wage cost is rupees 3.42 crores which include regular wage cost, daily wage cost and brick based wage cost. Hence the total wage cost for 526 total workers being Rs. 3.42 crores is not reflected either in table-3(A) and 3(B) above.

THE BRICK INCOME

The production, material and labour cost of production are the basic aspects of brick-kiln units. Similarly the be all and end all of brick making surrounds around the idea of income. In other words income is a very significant variable in the analysis of brick industry. The brick makers are greatly motivated by increasing their income. The income is a determinate of cost of production and wages they provide to the workers. At the same time the income is also dependent on the demand for bricks and the price the brick fetch for the brick makers. Therefore, the brick incomes of 30 brick-kilns are noted in table-04 below.

TABLE – 04: INCOME OF THE BRICKS (Rs. in Lakhs)									
Brick line	Brick Income	Total %	Brick line	Brick Income	Total %				
1	36.00	8.3	16	16.80	4.0				
2	21.60	5.0	17	12.60	3.0				
3	18.00	4.2	18	16.80	4.0				
4	11.00	2.5	19	9.00	2.0				
5	18.00	4.2	20	12.60	3.0				
6	1.20	2.8	21	10.80	2.5				
7	18.00	4.1	22	12.60	3.0				
8	18.00	4.1	23	10.80	2.5				
9	18.00	4.2	24	9.00	2.0				
10	18.00	4.1	25	12.60	3.0				
11	12.00	2.8	26	9.00	2.0				
12	14.40	3.3	27	12.60	3.0				
13	12.00	3.0	28	9.00	2.0				
14	16.80	4.0	29	9.60	2.2				
15	14.40	3.3	30	8.40	1.9				
Total				419.60	100.00				



Source: Field Survey.

Note: Rs. 2 per brick. For no. of brick manufactured in each brickiln see table1 Col. No.4.

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories www.ijrcm.org.in It is significant to note that the brick-kilns sell each piece of brick for Rs.2. As a result it is evident that there are as many as two brick makers whose brick income is 8.0 percent of the total brick income. Similarly, a bunch of say, 5-6, brick-kilns generates brick income of 4 percent of the total. The total brick income of 30 units is rupees 419.60 lakhs as may be seen from table above.

CRITICAL EVALUATION

Before we make a critical evaluation it is evident from our economic analysis that

- a) The 30 brick-kilns have produced 218.9 lakhs of bricks (see table-1 above).
- b) They have incurred a total material cost of Rs. 210.91 lakhs (see Table-2 above).
- c) They have paid total wages and material cost of Rupees 3,42,70,880.
- d) Therefore, if we deduct Rupees 3,42,70,880.

So much from 4,19,60,000 (income), we get Rupees 76,89,120 has the net income or profit made by 30 brick-kilns of our sample. It is clear from our analysis that on an average each of the sample units makes a net profit of Rupees 2,56,304 during the whole production period of 2007-2008. If we switch our attention to wages and employment on the ground that brick manufacturing is indigenous and labour intensive activity, our analysis of wage cost points out that

- a) The contract wage earners are 205 in number.
- b) The daily wage earners are 321 and
- c) There is brick based wage payment of Rs.160 for every 1000 brick shared by total workers (see Table-3(b).
- d) Thus, there are 526 workers who get total wages of Rupees 12179880.
- e) The average seasonal wage per workers is Rupees 23155.6.

Thus, the brick-kiln is a relatively a better paid unit from the workers point of view. If we compare to the wages received by workers who have worked in The National Rural Employment Guarantee Act 2005 (NREGA)¹¹ which is about Rupees 10,000 for hundred days of employment. We may therefore conclude that brick-kiln is not only profit making but also employment providing, coupled with higher amount of wage providing activity in Gulbarga city.

These brick-kilns have been working for the last one decade but are placed on rental land of others. They suffer from uncertainty year after year.

The brick-kiln industry has stood firmly with construction industry in Gulbarga City. At least 5-6 thousand houses and about 500 hundred private and public buildings are constructed year after year. Therefore, the brick-kiln industry may be held responsible for the faster rate of urbanization taking place in and around the Gulbarga City. However there are some of the important problems originated from the brick-kiln industry, which are as follows:

- a) They suffer from the shortage of raw materials and other material required for brick making. For example, mud supply is disturbed by forest officials and officials of mines and geology.
 - They are paise to paise self financed in other words they put in their own money or money borrowed from relatives and friends.
- c) The digging of earth for purpose of bricks creates water logging and during the rainy season this water spreads many diseases to the people in the city.
- d) They are very close to the city. Therefore the brick-making and burning creates many environmental problems. The brick manufacturers do not provide accommodation facilities to the workers. They also do not provide either permanent employment or general or health insurance.
- e) It has been found from our study that the net profit of some brick-kilns is highly understated. Because during the off season there is great demand for bricks. Therefore those who store and stock them sell the bricks at the rate of Rs.2.50 3.00 Rupees per brick. As a result out of 30 units of our sample as many as twelve of them make wind fall gains.
- f) The brick pieces kept as a heap around the brick-kiln are also sold for Rs.300-500 per truck. This income too does not come under estimation of net income. The labour is extremely under paid because no alternative work opportunities available to them. There is no workers union or association. There are no payments towards their social security. They also do not get any payment towards medical expenses, all this is to be attributed to the fact the brick-kilns are in the informal sector¹².

CONCLUSION

b)

The brick making is a very vibrant industry functioning in the close vicinity of the Gulbarga City. It has been responsible for a faster growth of construction industry in general, and house construction in particular. They provide employment to large number of illiterate, unskilled male and female workers. They have most of them substantial amount of annual net income due to the sale of bricks during off the season and the sale of brick pieces. The only problem and grumbling of the brick-kilns owners in the city is that they do not get bank credit. In other words formal finance is denied to these informal brick-kilns.

The last but not the least problem or the grumbling they have is with regard to the frequent intimidation from forest officials and officials of department of mines and geology. The brick-kilns are in the urban informal sectors but they are solely responsible for faster growth of construction activity in the Gulbarga City.

NOTES

1. For example, the international labour organisation (ILO) during the early seventies has defined informal sector as it specified a set of characteristic to distinguish informal enterprises such as small scale of operation, family ownership, reliance on indigenous resources, labour intensive and adaptive technology skills acquired outside the formal system and operation in unregulated and competitive market.

2. If not in terms of production or products, not using of technology, not having any unique market place for the sale of output also comes under the caption of unorganised sector. Similarly the National Commission on labour defined unorganised labour in unorganised market as "those workers who have not been able to organise themselves in pursuit of their common interests due to certain constraints like casual nature of employment, ignorance and illiteracy, small and scattered size of establishments, etc. (See report of the National Commission on labour 2005-06).

3. Claire Witbool, "The brick making in India by the poor, mud brick industry in India" New York Times Thursday June, 7, 2008.

4. Instead of brick-kiln industry, there are two studies only and exclusively on the employment of labour in the brick-kiln industry. For example see, Patil B.R". Brick-kiln workers in greater Bangalore" Indian Journal of Labour Economics, Vol. XXVII, No.4, Jan, 1985, pp.301-309 and Gupta Jyoti, "Informal Labour in Brick-kilns: Need for regulations, economic and political weekly, August 2003, Vol. XL, No.5, 22-23, PP. 3282-3292.

5. They were under the impression that we were from income tax office or from city municipality Corporation, or those authorities who visit them from time to time viz., the forest department or from the department of Mines and Geology. We revealed our identity and convinced them about the purpose of the study.

6. The specific wages are that each worker is paid a sum of Rupees 25-30 thousand for the whole season. Where as the Ad Volarem wages are Rs.160 for every Rs.2000 of bricks manufacturers.

7. Because, for example for mud every unit owner sells out Rupees 30,000 thousand per acre irrespective of the number of days he has brought the mud or the quantity of mud he has acquired for the whole season. This is paid to the farmers whose land is acquired for getting mud.

8. In our sample we have found that, there are 16 units, which get water from their own or hired borewells, nine units get from tankers, 2 units get from tractors, one unit gets from pipeline and lastly two units get from head loading.

9. The coal and ash are bought jointly by one or more units. These items are also brought from different places at different points of time. The payments are also made highly irregular. These are acquired from Sedam, Shahabad, Wadi, Hyderabad and Raichur depending upon their availability.

10. It is to be noted that the brick-kiln owners are lucky and happy. Because they get the water of required quantity from the borewells which are drilled about 100-120 feet or 30-40 metres. There are no reports of borewells having failed at any stage.

- 11. Under NREGA a person is entitled for employment upto 100 days in an year whereas the brick-kiln workers have received higher wages but also get work for a minimum of 100 to maximum of 180 days in an year.
- 12. Mr. Oscar Fernandes, Union Minister of State for labour, has pointed out that during 2008, the Government of India has passed a bill to cover workers in the unorganised sector. The bill seeks to establish a district wise council for workers working in the unorganised sector. For identification of such workers. They will be given a job card. If the workers do not get employment, they will be given unemployment benefit of Rs.500 per workers for a period of 6 months. In all probability this will take a lot more time to come into effect.

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