

Socio-economic Condition and Occupational Hazards of Brick Kiln Workers; A Case Study of Diamond Harbour Block-1, South 24 Parganas District

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Abstract: The brick field in Diamond Harbour Block 1 has been set up for nearly 60 to 80 years ago, the silted topography of the region is uniquely suited for making bricks from long historical past but brick production in this area is highly labour-intensive. The research methodology follow in this paper are mainly descriptive survey types. The writer give a brief description of socio-economic condition and occupational hazards of brick kiln workers. There are 12 brick kilns in the Diamond Harbour block I. In the Primary questionnaire survey all data are collected from the kiln owner, manager, labour and observing the situation try to find out proper remedies.

Keywords: Brick kiln, bonded labour, occupational hazards, violence.

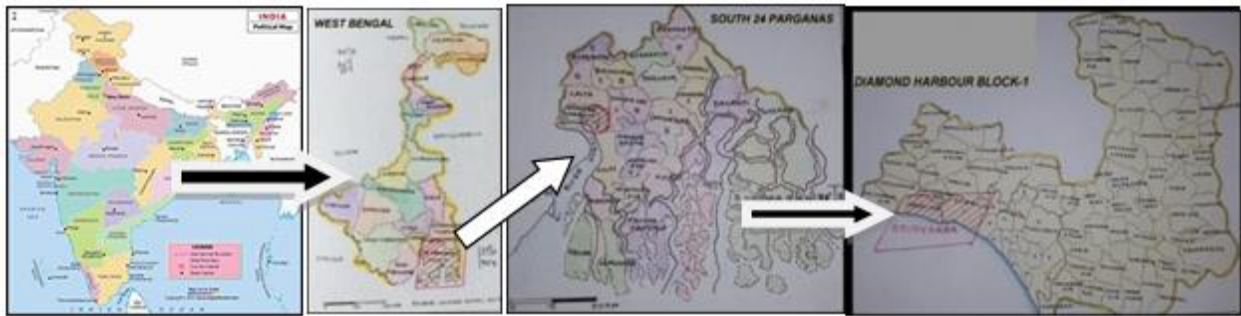
1. INTRODUCTION

Fired clay bricks are one of the most important building materials in our country. The Gangetic plains of North India comprising the states of Assam, Bihar, Haryana, Punjab, Uttar Pradesh (UP), and West Bengal account for about 65 percent of the total brick production of India, whereas peninsular and coastal India contributes the remaining 35 percent. It is the traditional industry of west Bengal; mainly southern part of west Bengal. The silted topography of deltaic region of South 24 Paraganas is uniquely suited for making bricks. Brick making involves some pitfalls causing considerable bond service and highly labour-intensive nature raises several occupational hazards. So that we need to find out the opportunity how to improve socio-economic condition and reduce occupational hazard through this micro level case study on Diamond Harbour Block-I of South 24 Parganas.

Location and Background of the study area:

Diamond Harbour block-I is located on the left bank of River Hugli. During the 17th century British merchants named this place as Diamond Harbour. With the development of Diamond Harbour the Britishers needed building materials for construction of their forts and others infrastructural development. Thus, the brick kiln primarily established in this place by the British at the bank of the Hugli River. After independence, some local entrepreneurs have been attempts to introduce improved technologies, but the rate of improvement was slow. Now-a-day we observed 12 brick kilns along the left bank of the river Hugli at Diamond Harbour block-I. Geographically the area extended from 88°08'40"E to 88°10'40" E and 22°11'42"N to 22°12'05"N (approx).

LOCATION OF THE STUDY AREA



SATELLITE IMAGERY OF BRICK KILNS AND ITS SURROUNDING AREA OF DIAMOND HARBOUR BLOCK 1



Objectives:

The following objectives have been the focus of the study.

1. To identify the socio economic condition of brick kiln workers.
2. To highlight details of occupational hazards like health problems related to work at brick kiln.
3. To discuss its indirect impact on demography. Ex: Fertility, morbidity etc.
4. To find out the remedies how can improve the social status and quality of life of the labour group.

2. DATA BASE AND METHODOLOGY

The research methodology follow in this paper are mainly descriptive survey types.

- ❖ During the pre field study location of brick field has initially identified from the Google image and checking all geographical information regarding the same in the previous journals.
- ❖ Primary database has been generated by the questionnaire survey among the kiln owner, manager, labour of 12 brick kilns, located the study area.
- ❖ Useful maps and diagrams are collected from Government office, atlas, Google Earth software, and different literatures written on these facts.
- ❖ All primary data which were collected from this area during field survey were tabulated and cartographic techniques are applied to illustrate and justify the aforesaid objectives.

3. LITERATURE REVIEW

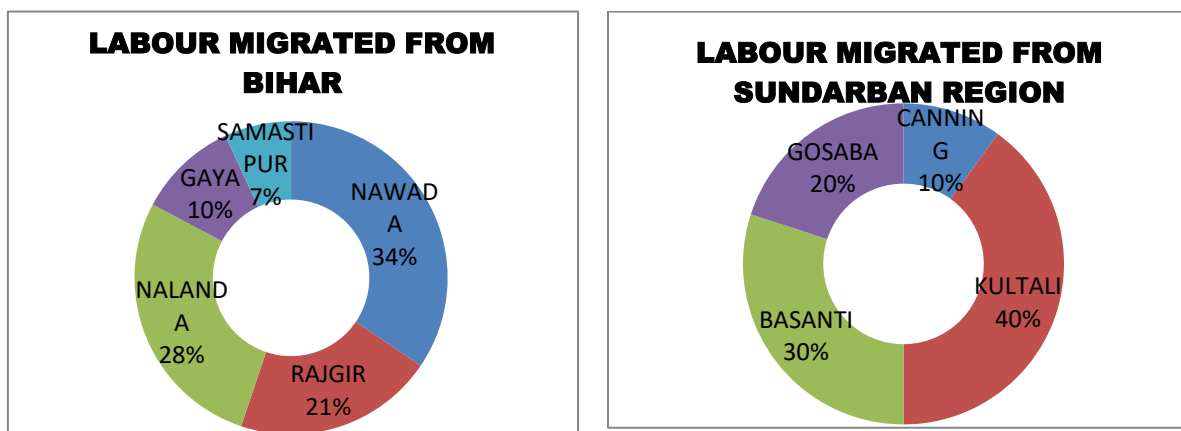
In this section a detailed review of various books and journals are undertaken. Aggarwal (1959) in his book “Socio-economic Conditions of Brick Kiln workers in the Gazipur Village” describes that the working condition of the workers of brick industry in India is far from satisfactory. Dharmalingam.A(1995) in his article entitled “Conditions of Brick Workers in South Indian Village” and Ghosh. Pallab Kanti (2008) in his book “Prospects and Problems of Brick Industry” dealt with product and productivity, marketing, financial analysis, work force of the brick industry. Though they deal with Prospect and Problem of brick industry, but they skip the major socio economic problems.

1. Socio-economic Condition of Brick Kiln Workers:

The brick industry in Diamond Harbour block 1 employs in excess of 2500 workers. Majority of them are migratory workers belonging to most vulnerable and excluded community of Indian society. Due to the seasonal nature of brick making, the workforce faces seasonal employment. The socio-economic conditions of brick kiln workers are discussed below.

A. Migration Of Labour Family:

In Diamond Harbour Block I brick kiln are run by seasonal migrant labours coming from different districts of Bihar (56.42 percent) like as Nawada, Rajgir, Nalanda, Gaya, Jamui . In primary survey it is reported that 25.63 percent labour migrated from Nawada district. 15.38 percent labour are from Rajgir district. 20.10 percent labour migrated from Nalanda District. 7.69 percent are from In Gaya District. 5.12 percent labour are from Jamui district. In case of intra district migration, it is reported that 12.73 percent workers works in this block are from Sundarban region among which 1.65 percent labour are from Canning. 10.26 percent labour are migrated from Kultali. 7.69 percent labour are from Basanti and 5.13 percent labour are from Gosaba village.



Cause Behind Migration: It is reported about the probable reasons for migration are Comparatively high wages at brick kilns particularly in south 24 paraganas, Diamond Harbour block I. 38% labour family migrated because of Low wage at native place, 10% migrated due to family pressure, 20% migrated for lack of job opportunity at native state and 12% labour migrated because of other reasons.

Impact of Migration: Migration had both positive and negative effect. Positive effect included assured employment and income during lean period, it helped in procuring agricultural inputs for next monsoon season. Negative effect included loss of identity, loss of education for children, exploitation of children, family disputes, health hazards etc. As the large number of female worker works in this sector thus it has an indirect impact on age sex structure of in migration and out migration area.

B. Bonded Labour:

Details of Bonded Slavery: The worker works in this kiln are bonded labour. The contractor collects workers for the brickfields from remote villages by paying *dadan* or money advance to impoverished families and brings the worker from Bihar or Sundarban to Diamond Harbour it is also known as debt slavery. It is reported during primary survey that usually most of the poor families took cash advances ranged from Rs.4000 to Rs.7000. *Dadan* or the advance payment seems lucrative to a worker who is without regular employment and already under economic pressure due to dearth of money in the village. Kiln owner do agreements to ensure them employment for a stretch of six months November to April, season of brick making paid them. The *dadan*-workers are required to pay-off the advance by working for the contractor without any cash payment of wages. . Rupees 300 is paid weakly/head for subsistence, known as *khorki*.

The Reason behind Engaging Bonded Labour at the Brick Kiln:

The purpose of bonded labour for the individual holding the debt is to get a cheap source of labor. The brick kiln workers usually get up early in the morning, generally before sunrise. The owners provide each brick making family with one or more molds. Standard sized mounds are prepared from earthen paste. Adults and children put these balls in the molds to prepare bricks. The brick-making process continues till they have used up the earthen paste. On an average, they work 10

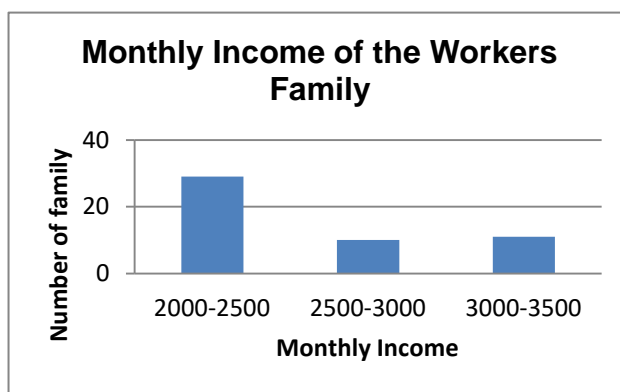
to 14 hours in a day. With the help of a dice, women (along with children) are required to mould at least 1500 to 2000 bricks per day to earn the minimum food requirement. Then follows the process where the 'katcha' bricks are heated before being baked as final bricks. In this process, "firemen" are involved. Their shift is usually 12 hours. The final process involves carrying bricks out of the kiln for onward transportation to the market. The labourers involved in this process also work long hours, i.e. from 11 to 14 hours a day so it is indicated vulnerable economic position of the labour working in the brick industry.

C. Extreme Poverty:

Majority of the labour families affected by vicious cycle of poverty which is related to others socio- economic conditions activities. Most workers are engaged in the agricultural sector during the off period. The average monthly incomes of the workers are not exit 1500/month. It is reported that weekly 300 rupees is paid them for food allowance called 'Khoraki'. The wage they earn is not sufficient to feed the members of their families early marriage, high fertility, high dependency ratio throw them vicious cycle of poverty.

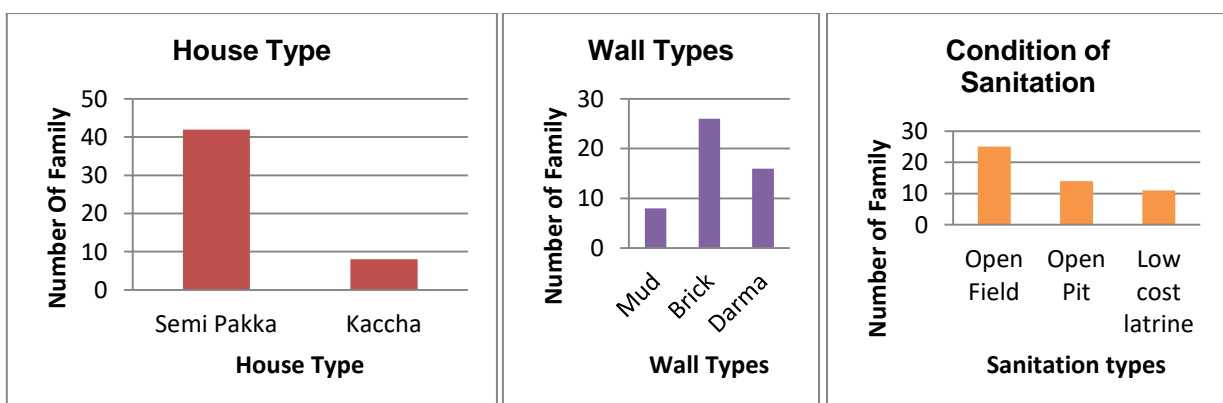
Economic Condition of Labour:

They work here 12-16 hours but they do not get exact amount wedges and there is a wedge differentiation between other state and intra district worker. In the primary survey it is reported that among the 50 numbers of family 29 number of family has monthly income range from rupees 2000-2500, 10 number of family has monthly income range from rupees 2500-3000, 11 families monthly income ranged from 3000-3500.



D. House type And Housing Condition of the Workers:

Land holdings of them are very much minimal. Most of the workers live in semi pakka houses covered with tiles. Some are Temporary mud huts covered with plastics or tarpaulin with no ventilation at all. Only one main entrance often without a door and so low that one has to literally crawl in. Darkness, overcrowding, rodent infestation and unhygienic conditions overshadow the inside of these shanties. Outside of the huts vulnerable to the surrounding dirt and dust used as kitchen. Waste Disposal- Indiscriminate throwing all around inviting flies and rodents. Thus, they had no latrines and therefore they practiced open air defecation. Their personal, domiciliary and environmental hygiene were of very poor quality. Apparently, there were too many determinants and risk factors for communicable and non- communicable diseases among this population.



E. Violence:

Women experience violence because they are women, and often because they do not have the same rights that men do. Labour are addicted to drinking during field research accounts of beatings is reported. They faced the problem of physical violence. The labour gets off half day work on every Saturday weakly called 'hapta'. On that day the men take various drugs and this day is more vulnerable for violence against women and children. No woman in a brick kiln is exempt from violence and exploitation.



Female Workers

2. Occupational Hazards of Brick Kiln Workers:

A. Occupational Hazard:

Brick manufacturing plant uses different raw materials, among them some elements potentially harmful to the health of brick kiln workers. Hazardous dust particles are one of the most harmful exposures in brick kiln workers. Specially in the firing, uploading and coal blending sections. Amount of CO₂ and suspended particulate matter are very high at that place. In the primary field survey it is observed that most of the workers who works in the bricks Cutting and clay extracting section sustained the sicknesses like Backache, Body or muscle aches, Headache. The workers who are associated with coal blending section sometimes they have showed difficult breathing, eye itches different skin disease etc

Type of Disease	Work Causes the Disease	Number of Male Workers	Number of Female Workers
Respiratory Problem	Coal Blending, Loading	18	15
Body Ache	Digging, Loading, Moulding, Driving Van	48	52
Chest Pain	Coal Blending, Loading, Unloading, Driving Van	22	18
Digestive Disorder	Coal Blending, Moulding, Firing, Loading	32	45
Head Ache	Moulding, Firing, Loading, Tempering, Driving Van	50	50
Weakness	Digging, Loading, Driving Van, Moulding	23	36
Itches	Firing, Coal Blending	23	13
Skin Rashes	Moulding, Coal Blending	23	43
Eye Problem	Firing, Coal Blending	21	22

A. Medical Facilities Provide By Kiln Owners:

In my primary survey it is reported that kiln owners gives them some medical facilities. The worker said that if they suffer from various illness the kiln owner granted them for the leave and provide them only a coupon of rupees 30/- for check up to local doctor. Doctor gives them minimum essential medicines, if they dose not cured by the medicines of Rs 30 they get another coupon of Rs 30 in the next week. So medicine provided by the kiln owners for sick labours are not sufficient.

3. Demographic Problem:

A. High fertility:

The majority of workers were in age group of 15-44 years age group. The men and women workers engaged in the brick fields got married at the age of 20 and 16 years respectively.

B. High Morbidity:

As brick kiln workers are living in different types of occupational hazard thus they have the risk of morbidity. According to primary survey it is reported that majority of workers are undernourished. Majority of workers complained of digestive disorder, fever, generalized weakness, neurological problem, headache, dermatological problem, ENT problem are common morbidities found in this brick kiln workers.



C. Bedeviled Childhood:

The children of the worker's family are deprived from basic primary education for their mobile life. Unhygienic environment, domestic violence, high morbidity in the brick factory compound causes bedeviled childhood. That has driven them to join as child labour in the brick kiln.

Concluding Remarks and Suggestions:

This is a hazardous job for them. Mobility of bonded labour creates a mixed culture social and demographic problems in the brick kiln nearby slum area. But we cannot stop brick production, it is essential for our society. It is the source of employment of 3000 people. So we should find out the proper remedies.

1. The house provides the labour families are unhygienic. The electricity, proper clean toilet, separate kitchen should be provided by the kiln owners.
2. As the labour are illiterate and the children of the worker's family have not attempted school for their mobile life so Education programme for the workers of the brick kilns should be implemented for making them literate. As every Saturday they get half day leave, if education and awareness program held in this day in the form of songs, one-act-plays, short poems it also gives them recreations and if the leave time utilized by the program, violence may decreases.
3. In child labour act 1986, social and beneficial legislation strictly prohibit against child labour. So the kiln owner should not engage child labours.
4. Government as well as NGO should make an awareness programme to improve their social structure of migrated labour families. Now the main question is from where the money is get? In my observation I suggest as the river side of Diamond Harbour is a picnic place if we beautifully decorate the brick kilns and surroundings of river bank area. The area will also attract the tourist. If they introduce entry free to enter the brick kilns and watched the brick manufacturing process .It will be also sourced of income. The amount of this profit may used for social development of labour groups.

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