

# HEALTH AND WORKING CONDITION OF INFORMAL LABOURERS IN BRICK KILN INDUSTRY IN PATNA BIHAR

*Kumud Teresa*

*Jawaharlal Nehru University, Delhi, India.*

## ABSTRACT

The informal sector or unorganised sector broadly categorised as working units engaged in the production of goods or services with the primary objective of generating employment and income to the person concerned (ILO, 1993, p. 2). The structural transformation of Indian economic and agricultural sector has been witnessed after the Green Revolution in the 1970s and later by the economic reforms in 1990s. These landmarks in the economic history not only paved the way for economic resurgence but also opened the market for the informal and unorganised sector of the economy (Chopra, 1982).

A large number of workers employed in small-scale industries like brick kilns and construction industries. In India, most of these unorganised and informal workers are landless or marginal farmers. Even the agriculture in some areas is often of low productivity and hence does not fetch them high earnings. So many of them migrate to other places for seasonal and temporary work in these small-scale industries and return to their native places in farming season. Their continuous effort of wage-earning across different places results with various vulnerabilities in their socio-economic life. They face economic subjugation and physical exploitation. The capitalist mode of production demand the surplus labour, does not give the best share of wages to the working labourers. Thus, the socio-economic condition of these seasonal workers does not change much. While several umbrella legislation has been provided by the government including Minimum Wages Act, Contract Labour regulation Act, Abolition of Bonded Labour etc., but it has not given

full-fledged protection to the informal and unorganised labour across the country. Workers in the informal economy include the vast majority of the workers in the country who are in the unorganised and informal sector. The International Labour Organisation (ILO) has also expressed its concerns for worker's health and risks especially for those informal labour who work in a hazardous environment in the report "Decent Work and Informal Economy", (ILO, 2002).

### **BRICK KILN INDUSTRY: INDIA AND BIHAR**

The western world has modern brick kilns which are technologically operated and ensure all safety to the workers. The brick kiln industry is often qualified with the word of 'unorganised sector' or 'informal' industry.

Brick making is a traditionally an unorganised industry mostly located at the rural and semi-urban areas. It employs millions of unskilled and semi-skilled labourers. The Indian brick kiln industry is the second largest producer in the world next only to China. India has more than 125,000 brick kilns ("Slavery in India, 2017, p. 2). However, in India, it is even today operated manually, where the manufacturing is dependent on the unskilled manual workers. It consists of small units which operate in clusters in rural and peri-urban areas in the country. The brick kiln industry classified under small manufacturing unit by National Industrial Classification, 2010. (Labour Bureau, Government of India, 2004). The working environment and living conditions which are an integral part of brick kiln factory, produce ample situations for health hazard and create health problems for the workers.

In most of the geographical location, the brick kilns are found in clusters. Thus it is viewed as 'regional Industrial clusters' in the rural sector. It gives employment to millions of workers mostly seasonal migrants (Development Alternatives, 2012, p. 2). In many studies, it has documented that the workers working in brick kilns are mostly from the lower caste (Bremen, 1996) (Chopra, 1982) (Kainth, 2009). Aseem Prakash observed the life of brick kiln workers as the most vulnerable social and health threats. The author names it the "classic example of unfree labour through debt bondage". The author pointed the family labour in the brick kiln. Male workers see them as helping hands in his economic activity, and they can be free from cooking and other familial responsibilities (Prakash, 2009, p. 203). Talking about the significant changes that have come in the brick kiln sector is mode of advance payment, which Oslen (1997) explains, has resulted in the 'bonded' nature of labour. In modern times, the advance payment plays the factor of pulling workers into labour bondage.

The economic stagnation, caste politics, and widespread poverty along with the existence of semi-feudal nature of production in the village economy had witnessed in Bihar in the 1990s. It led to the massive out-migration of agricultural labourers and poor peasants, mainly from north Bihar, to the developed north-west regions of the country. (Sharma, et al., 2012, p. 18). Post-liberalisation period brought some positive development in the state economy in Bihar. The political stability brought better governance since the year 2005, and it had paved the way of development in Bihar. Building and road constructions increased the demand of labourers in urban centres. Many brick kilns also started functioning along with the bank of river Ganga. This development process resulted in rural to urban migration of labourers in urban cities in Bihar and many labourers also started working in brick kilns. The labourers attracted to working in kilns because they get advance payment before starting working in it. However, it was only a tool for attracting poor labourers which lead them to their economic and physical exploitation by the brick kiln owner. This paper attempts to understand the working condition and health issues associated with the brick kiln industry.

### **HEALTH AND WORKING CONDITION IN THE BRICK KILNS**

There is a direct relationship between the process of commodity production and the health outcomes. It is visible in the industrial workers where they are affected by industrial accidents and industrial diseases (Doyal & Pennell, 1979) (Qadeer & Roy, 1989). The informal labourers suffer from all discrepancies from state and central government; they remain ill and poor for the generations. Some studies have shown the nature of 'Bonded Labour' and contract labour in brick kiln industries. The ILO study on child labour in brick kilns of Afghanistan has shown this future and attracted the global concern over the unorganised labour in Brick kiln industries. In India also some literature and studies also showed the same pattern of bonded and contract labour (ILO, 2011).

Health and work relate to each other, especially in the context of informal works. A human body can adapt to specific workload. In the nutritional front, body needs nutrition according to the amount of work is done by the body. Health problems in the working class are related to their general life situation. The adverse working situation, poor living condition and poor accessibility to health care services lowering the health condition of the worker in the informal economy. The work, worker and health should be linked to understand the health of the informal worker. The poor workers are exposed to every consequence of economic and social exploitation. They are also prone to health hazard due to the absence of a necessary precautionary instrument. However, the informal workers who are working for their daily earn, never give a thought on their risk to a health hazard (G.P. Sinha, 2008, p. 35). Shramshakti Report (1983) describes about the workers employed in manual work process are prone to health hazards in the working environment.

A study by Rajesh Mehta et al., work on morbidity pattern of brick workers explains the health situation of the brick workers. He suggested that brick-making families need health services and support that are designed to meet their special needs, taking into consideration the unique risks they face. The brick kiln is a health hazard for the younger children. Malnourished and exhausted, they are double exposed to accidents, infections of the stomach, lungs and skin where the coal settles. The condition of pregnant women is also particularly difficult at the brick kilns (Mehta, et al., 2010). All these problems are preventable mainly by using knowledge of ergonomics, providing safe drinking water and use of face mask with reduction of air pollution by proper engineering methods

#### **METHODOLOGY**

The researcher opted to use an *exploratory research design* to gain an in-depth understanding of how the brick kiln labourers' experiences of health vulnerability and its associated issues affect in working hazardous working condition. As it was not practically possible to include all the brick kilns in Patna district due to permission and availability issues, So the study was restricted to one specific region where several brick kilns are functioning on the bank of the river Ganga.

The field study approach was selected to understand the different dimension of the brick kilns industry and the working and living condition of the brick kiln workers in Patna district. The organisational structure of brick kiln includes both the household workers and individual workers. The unit of analysis had been selected as a household living in the brick kiln premises. There were 44 household and 4 individual workers living and working in the brick kiln premise. However, a total of 34 households participated in the interview; 8 families did not consent to participate in the interview process. Thus, the total sample size was 38 including 34 household and 4 individual workers.

**TABLE NO 1 : WORKING MEMBERS IN A HOUSEHOLD**

Working	Households	Total	Total
---------	------------	-------	-------

member Household	in Moulders	Carriers	Household	Workers#
2	16	6	22 (64.7)	42
3	3	3	6 (17.7)	18
4	1	2	3 (8.8)	12
5	3	0	3 (8.8)	15
Total	23	11	34 (100.0)	87#

*Figure in the bracket is the indicates the percentage of the total number of household, n=34, # Data on firemen excluded in the table, as they are individual workers, \* household survey*

The interview schedule which was designed to cover various aspects of the respondents lives in the brick kiln. It included identification of their socio-economic profile, working process, living condition, health situation and their health seeking behaviour. The interview schedule consists of identification of data like name, age, sex, marital status, caste/tribe, active labourer of a household, their native place, their work and their experiences in the brick kiln works.

#### **ANALYSIS AND INTERPRETATION**

Narrative analysis of the responses from the respondents had been selected for this study. Based on recurrent themes and broad patterns, the major findings of the study have been analysed and discussed under three major headings, which were further divided into various sub-themes. Further analysis was done in mind the specificity of each category of brick kiln worker and their work profile.

#### **I. WORK STRUCTURE IN BRICK KILNS**

The uncertainty of employment and condition is the main feature in the informal and unorganised employment. In the brick kiln economy, economic vulnerability of the workers remains in their life. In the brick kiln economy, the direct recruitment is absence. The owner hires the workers only through the labour contractor. There is a detailed process involves the recruitment process. Different labour contractors bring different category of workers. The labour contractor gives advance money, in term of the loan to the prospective labourer. In the villages, the labour contractor selects those labourers who had worked brick kiln works in the last season and the other landless poor labourers, who have not much work after harvest season in the villages. The poor workers attract with advance money which they get before starting actual work.

The labour contractor gives advance money before negotiating the prospective brick kiln site for the works. This strategy applied to reduce the chances of disapproval to join the labour work by the selected labourers. Some of the brick workers do not know, at which places they will deport. The labour contractor brings labour workers along with him to the brick kiln site.

A male brick worker who worked earlier in the different brick kiln in Uttar Pradesh said,

*I asked labour contractor to send me to UP brick kilns, but he sent me this place.*

*Brick kiln owner and manager of Bihar are worst; they treat worker inhumanly.*

*I have to work here as I took advance money. (Male labourer, 45 years)*

#### **i) The family works as a working unit**

They come along with their family to the brick kilns. With the notion of “more hands produce more”, the whole family contributes work in the brick making process.

On the question of family involvement in the labour process, one brick worker replied,

*I earn very less so I cannot spend this on me and feed my family who stays in the native village. I brought my family here; my wife helps in the work. In some days, my children also can help us. We can mould many bricks and earn more from it. We earn only that much amount, from which we can feed ourselves.*(Male, 34 years)

The family involvement in the work process is the necessity of the brick labour. As many members of a family working together and making more pieces of brick, they get more remuneration. A brick carrier who has three children and all are working in the brick kiln as a brick carrier, said,

*My kids are very young. I cannot leave them in our village in Jharkhand. There is the uncertainty of Naxal attacks in the villages. So, it is better to keep them with us only. At least they will learn to work and help us.*(Female labourer, 25 years)

The respondent who belongs to Jharkhand feared to leave his family at a village in Jharkhand which is Naxal affected. His children were not studying due to poverty.

**TABLE NO:2 WORKING MEMBERS IN A HOUSEHOLD**

Working member in the household	Moulders	Carriers	Total
2	16	6	22 (64.7)
3	3	3	6 (17.7)
4	1	2	3 (8.8)
5	3	0	3 (8.8)
Total	23	11	34 (100.0)

# Data on firemen excluded in the table, as they are an individual workers \*household survey

The table number 2 shows the working member in a household. There are 64.7 per cent family have two working member. There were also some household who have 4 and 5 member contributing their work in the household.

## ii) Working time and schedule

The brick kiln industry functions only in the dry month (October to May) and the production closed in the rainy season. As mentioned earlier, each category of brick work starts in different schedule. The moulding process starts in mid of October month. So, the workers who mould, *plethora* come first in the brick kiln and start the moulding process. There is no stipulated time for their work. The workers get their wages on the basis of piece rate system. despite the piece rate system, the owner directed the workers to work in the brick kiln upto 8 to 10 hours per day. However, it is not the fixed time of working hour, but it varies according to weather condition and the demand for total output. A brick moulder said about the work schedule in the brick kiln,

*I came to the brick kiln in the month of November; I started work just after Chath Puja. Once the all workers including Reja (brick carriers) come at the mid of December, the works speeded up. And the brick factory works in full pace when the brick furnace lit up in the month of January. I used to do 8 to 10 hours in the month of December, now it is being 12 to 13 hours in these days of March. It can goes up to 15 hours in the end of the brick making season of May and June to mould more and more bricks. At those days, we work like machine. The moulding works run throughout the night in the month of May. We work accordingly in each month of brick season, but the manager never leaves us in*

*peace. He never satisfies with our work and scolds every time for work timing. We are also human, we also need rest. We are labour workers which do not mean that we are machines. (Male labourer, 30 years)*

The worker told about the uncertain work schedule throughout the brick working season. He also complains that the workload is much higher, but the manager and owner do not treat them good and want them to work inhumanely. He expressed the pain of hard labour and anxiety of the incommensurable habitation.

*The workload in the brick kiln increase day by day. When it starts in October-November, we mould according to our pace. From the January month onward, when the furnace starts working, the workload raise to its limit. We need to work more and more. In the month of May, they even put JCB machine (digger and excavator) and automated Pug mill to increase the kneading process. (Male labourer, 28 years)*

### **iii) Income and Wage system**

The wage system in the brick kiln economy indicates the evidence of manipulation of the wages and exploitation of the workers. There was no structured wage system follows while distribution of wages to the brick workers. The piece rate system for the accounting of wages and advance payment are the two problematic features which is highly discussed and debated in context of social security measurements by the government. However, it is still rampantly practicing in brick kiln industries with the support of corruption by government officials.

The wage income of the brick worker includes advance payment which is given to the workers before starting the work and the weekly allowance which is given at every week. Each brick working household gets advance money according to the number of the household member will join the brick kiln works. That amount is not fixed, but that amount has to pay off by selling his/her labour. When they join the brick kiln, they have given weekly allowances of rupees 200 for each working member of the household. However, the weekly allowances do not exceed more than 500; perhaps there may be 4 or 5 members of the worker family are working in it. The total number of brick moulded by worker/household unit is registered in the account register, same as for the brick carriers. At the closing of brick kiln before the rainy season, the final account is to be settled by each worker. Each working unit gets their wages after deduction their advance money and the sum of weekly allowances which they have taken already.

Here also, there is not structured or unified wage given to each category of workers. A male worker, age 35 said,

*I am doing brick works since three years. I have end up all money which I save from last brick work season, and I was doing some agricultural labour works in my village in rainy season. I needed an immediate work. The labour contractor offered me to work in brick kiln works. So I took Rs. 8,000 as an advance payment. I asked about the rate of weekly allowances. It was Rs. 200 in last year and it is same in this year too. It is very sad, because the prices of all food and vegetables are raised enormously since last year. (Male, 35 years)*

The worker came to brick kiln factory with hope employment which will help him to feed his family. However, he realises the truth of his informal nature of employment that does not guarantee for his regular and satisfied wage payments. He cannot leave work too because he already took advance money. The wages were given according to the piece rate system. Therefore, most of the workers try to mould or carry as many as they can. Sometimes time

constraint and additional demand for more products, they work day and night to complete the work.

A male brick moulder said,

*We get wages according to the numbers of brick we moulded. So, my family tries to mould bricks as many as we can. In the last days of working we work more and more time to increase our wages. Otherwise, we will get very less wage.* (Male, 28 years)

There is gender dimension also exist in the wage distribution. The female workers seem invisible in the labour workforce. Wages are never given to a female member of the working unit. It appeared as the significant feature of gender disparity in this brick kiln.

A female brick moulder said,

*I work here with my husband. The wages have given according to the number of bricks we moulded. And a weekly allowance of Rs 200 is given to one person or family. My husband collects that money. He goes to market and buy food items for the week, and spend the rest of money in alcohol. If I would have that money in my hand, at least my share of wages, so I can spend that money accordingly.* (Female labourer, 23 years)

The women workers also work in the brick kiln. However, they do not count as one functional worker. A female brick worker counts as a helping hand and share the workload with his family. She never gets her wages in hand.

The wage of firemen is fixed, and they are paid as monthly. However, they also do not take this amount on a monthly basis. They also take weekly allowances like other brick workers. They collect all amount of wage at the end of the season. The fire men also get the advance amount before joining the brick kiln works. Therefore, they also get their amount after deduction of advance money and sum of weekly allowances which they have taken earlier.

**TABLE NO:3 WAGES OF THE WORKERS**

Brick Workers	Wage	Working hour per day
Moulders	Rs. 200/1000 bricks	9 hours/day
Carrier	Rs. 80/1000 bricks	10 hours/day
Fireman	Rs. 3000/ month	12 hours/day

*\*household survey.*

This brick worker, who has been working in brick kilns for five years, knew the manipulation and exploitation of the workers. He also said that the owner has to give these compensations to attract. However, at the end of the season, the owner manages to get back all extra money which he has spent on the compensatory work.

#### **IV) SOCIAL SECURITY**

The Government of Bihar planned the scheme for the informal workers. Bihar Centenary Unorganised Sector workers and Artisan Social security Scheme has launched in the year 2011 for unorganised workers of Bihar. It provided through the labour department. It provides monetary assistance for the unorganised worker in accident and death in working site. The owner knew about it, but none of the workers was aware of any social security measure that they could avail from the government.

A male brick moulder angrily responded to the knowledge of any government social security measure,

*Do not know that government gives money for us on some circumstances. Who has the interest to give this information to us? If the government gives such provisions, then why the officials do not come to see our situation here? We work here for our survival; it does not make that we are an outcast. I heard about this first time from you. However, how does it make better the situation? (Male, 26 years)*

Afireman said,

*In the offseason of brick kiln works, I usually go to Panjab for hosiery work in factories. There the workers get compensation from the owner if any fatality met by a worker in working hour. I asked once to the owner about compensation; he said 'sarkariintt-bhatta Nahihai ye, jo compensation mileage.' (Male, 25 years)*

There is the state manual to monitor brick kilns and other small factories where the informal and unorganised labour works. The brick kiln owners and managers are generally local goons who threaten and exploit brick kiln labourers to get maximum benefits from them.

The manipulation of the work schedule, wages rate, record keeping system for wage count are the major issues where the brick labour are being used to exploit. The brick kiln economy, which is a subsistence economy where the employment condition only allows the worker to get wages only for their survival. The economic exploration of the brick kiln economy is very complex, and it is challenging to present in full concrete manner due to the absence of factual data on their wages, allowances, benefits etc.

## **II. HEALTH PROBLEMS AND HEALTH-SEEKING BEHAVIOUR OF BRICK KILN WORKERS**

In the brick kiln factory, where all works are done manually and handled by casual and seasonal brick workers. They are vulnerable to health risk due to excess work and harsh working conditions. There are also some health problems which are caused due to the surroundings where they live and work. Other important factors which affect their health situation are their nutritional status, safe drinking water availability and sanitation.

There are also various types of health problems that affect the life of brick kiln workers. They could be a physical and psychological health problem. If brick kiln labourer needs medical consultation, he/she is directed to visit a medical practitioner who is provided by brick kiln owner. However, the respondents said the fact that the medical care and treatment is free for the brick kiln workers is misleading. Based on the interview of the respondents about the health problems are categorised according to the specific category of brick workers. These health problems generally occur due to the procedural works by specific worker groups.

**TABLE NO:4 HEALTH PROBLEM EXPERIENCED IN BRICK KILN WORKS AT THIS WORKING SEASON**

Health problems	Workers			Total Responses
	Moulders	Carriers	Firemen	
Minor pain in back, shoulder, body ache	19	7	1	27
Major pain in body	3	3	-	6
Cold and cough	4	2	-	6
Digestion related problem	6	4	-	10



Critical health problems      2                      1                      -                      3

\*household survey #include multiple responses from the single respondent

According to this table, a pain-related health problem is the most prevalent health problem in the brick kiln workers. 19 out of 24 moulders reported the body ache, shoulder pain while half of the brick carriers also reported the same health problem. Digestion related problem become the second type of health condition when the workers seek medical help.

### 1) **HEALTH PROBLEMS: OUTCOME OF LABOUR PROCESS**

It is very distinguishable as each category of workers reported different types of health complication. There is categorical differences have shown in the subsections.

#### **i) Brick Moulders**

Brick moulding process includes moulding, removing uneven edges with sharp tin-plate and placing raw bricks for sun-drying. A brick moulder who was working in the brick field with back pain, said,

*I am experiencing back pain since a week. It increases when sit and work. But without sitting how can I mould. We stand up only after the portion of clay get finished otherwise it will dry. If pain goes severe then we ask medicine from the Manager. He keeps some medicines. (Male, 30 years)*

Another male brick worker responded about his experience of health problem,

*We mould the bricks from kneaded clay. We need cut it and shape it through wooden mould frame. Our palm becomes so dry when we start brick works. Sometimes my palm bleeds due to excess dryness. However, I need to work again in the next day. (Male, 26 years)*

The brick moulders gave the finer details of health problems and expressed the helplessness for this situation where he has to bear the pain and continue to the work.

#### **ii) Brick Carriers**

The brick carriers, who carry bricks and place them to the different places of the brick kiln. A female worker from this category explains,

*We work 5 am to 10am. I am weak and do not carry more bricks on head. But manager scolds me that I am pretending. Carrying bricks in head for longer hours give neck and chest pain to most of the workers. Since one month I am feeling weak. While carrying bricks, I feel that my head get depressed into my chest. I visited the doctor, but I did not get cured. I asked owner to give some monetary help for visiting good doctor in hospital but he refuses. (Female labourer, 22 years)*

A female brick carrier explained about the health problem,

*Carrying raw bricks is heavier than baked one. And for carrying raw bricks we need to handle it with extra care to avoid breakage. The baked bricks are lighter, but it has other complication. When we take out baked bricks from the furnace, it has lots of sands. While carrying this into head, it dust around and goes into our eyes, in head and over the body. We get itching and rough skin due to this. (Female labourer, 26 years)*

#### **iii) Firemen**

The firemen are the most vulnerable to the health hazards while working in brick kiln. Their work schedule and time is also very harsh. They need to monitor the fire and refractory process in every hour. The brick furnace fires continuously once it is started. Each fireman works

continuously and change rotation in every six hours. The continuous work hampers their sleeping habit.

A fireman said,

*Staying and working in the dock area of the furnace has its pros and cons. We have to check the furnace holes in every time. We need to open the iron sheet cover over the furnace hole and to look inside to check the colour of the flame. The extreme heat suffocates our breath at that time. Our eyes sometimes pain a lot due to overheating. Brick firing job is lucrative but risky too.* (Male labourer, 23 years)

The fireman, who hails from Uttar Pradesh, revealed some details of health complication of the firemen which they get in later years of their age. He described,

*In my village, most of the men do the firemen job in the brick kilns of Panjab, Haryana, Uttar Pradesh, Bihar, Assam and West Bengal. I have seen them growing in early age. They usually lost eyesight very soon. They also complain of joint pain and heat sensibility. Maybe this is due to prolonged work in the brick kiln.* (Male labourer, 25 years)

## 2) **HEALTH PROBLEMS EMANATE FROM THE CONDITION OF WORKPLACE AND HABITATION**

The living and working conditions are the important determinants of individual's health. The brick kiln labourers who migrate seasonally from their native places for casual work in the brick kiln to earn wages. As the brick kiln industry only functions in dry months of a year, the workers have to work extensively in the brick making season to make as much as they can. They stay in the brick kiln premise in the temporary shades, or temporarily provided rooms. From the list of various health problems, there are some health problems which emerge due to the condition of the workplace and the condition where they lived.

### **i) Brick Moulders**

These brick moulders works in open brick field. They have to suffer harsh weather condition in winter and summer days. In winter days, they have to start work early in the morning where the fog and cold waves affect their health. In summer day, they need to work in direct sun throughout day for mould bricks as much as they can. The brick kiln premise expose to extreme hot and humid weather in summer day, and chilled and windy in winter days. The brick moulders feel very difficult in the summer days.

A respondent said about the incident happened in the last season,

*Last year one brick worker suffered heatstroke and died. I am worried about this time. After all, life is more important. I will try to start my work as early possible in this summer time.* (Male labourer, 30 years)

### **ii) Brick carriers**

The brickfield in not even surfaced. The brick carriers needed to carry dried bricks from the field and stacked them into the furnace chamber. Moreover, after baking process, the baked bricks need to take out from there and to be stacked in the stock area.

*Carrying loads in the uneven area need more strength. We need to carry a brick on and of the brick field. We are carrying loads of bricks and going through up and down makes us tired frequently. We cannot take rest between otherwise manager scold us. This not evitable but we can do our works with smaller loads, but the manager hawks us as we are bulls. Even bulls take rest. They exploit us because no one is watching them. In other states, the picture is*

*not so different, but at least they are not so inhumane like him (manager).* (Male labourer, 29 years)

A female worker said,

*We stay in the room which is very small. The size is about the single bed. It is dark and damp too. If I feel suffocation in it then definitely my child will feel worse. The condition of the hut is far better than these closed cemented rooms.* (Female labourer, 25 years)

The families of brick carry live in the temporary rooms. These rooms are a part of three storey building. These rooms are very small and have no ventilation. Such living condition causes health problems, especially to the children.

### iii) Firemen

As the firemen live in the hut just above the dock area of the furnace, therefore, they are exposed to heat and smoke throughout the brick baking process which lasts up to 5 to 6 months. Dehydration, skin problem and redness of eyes are several problems which affect fire men.

### 3) HEALTH CARE SERVICES NEAR THE BRICK KILN

There were several unqualified doctors clinic exist in the locality. The local people, mostly illiterate did not know the authenticity of these doctors until they get into severe health complication. Among these unqualified doctors, there was one doctor who recommended by the brick kiln owner to his workers.

A local medicine shop owner having shop near to brick kiln said about the health problems of the brick workers,

*Most of brick kiln workers complain about body ache, particularly female workers. Measles and diarrhoea are common in the younger children. Women workers do not report any women health problems but except ask for abortion pills. The reason for asking abortion is higher among middle-aged women. They do not follow any contraceptive technique and neither usage of a condom is popular among the poor labourers. Abortion does not mean that the women are concern about lesser children, but is the awkwardness and guilt feeling by those women who get pregnant in their later age. However, I noticed that the choice of the son is also prevalent among these poor brick workers. Many times these brick workers ask for sex determination of foetus. I told them that it is illegal and very-very costly.* (local medicine shop owner, 40 years)

There was only one qualified medical practitioner runs a clinic in the market area. The workload and severity of the medical cases are so high that he needs to refer every patient to the bigger hospital. An informal interview has taken with this doctor to take note of health care service availability and its different aspects. He expressed great frustration over the existence of a plethora of fake doctors in the area. He also said that majority of the population including brick workers prefer to consult these fake doctors.

He responded,

*Major health problem of brick kiln workers is malnutrition and undernutrition. Poor sanitation and unavailability of safe drinking water caused diarrhoea, which turns critical sometimes for the brick kiln workers. Most of the sick patients and brick workers, firstly consult local non-medico and unqualified doctors. The poor labourers seek treatment from unqualified doctors, and when their health deteriorates, they come to my clinic. I treat a patient only if I can treat him. Otherwise, I refer the patient to the nearby private hospital, Holy*

*Family Hospital, Kurji. Alcoholism is the also major problem in the brick kiln premise. Most of the brick workers are a severe alcoholic.(Doctor, 58 years)*

Their economic condition bounded the brick workers that they have to rely on the low-cost health facility by the local non-medical practitioner. This leads to their health risk. Sometimes the medical treatment cost surge up more in severe health problems.

#### **4) AVAILABILITY OF SAFE DRINKING WATER AND SANITATION FACILITY**

There is a big problem of sanitation facility in the brick kiln premise. However, there is strict instruction given by the state government to provide sanitation facilities in all factory premises where women work, but there were no sanitation facility available in any of the brick kilns of the locality.

A female brick moulder said,

*This is a very pathetic condition in the brick kilns of Patna. I worked in the brick kiln of West Bengal, and there was a little better working condition from here. Firstly and most importantly, there is no toilet in the compound. We cannot go for the toilet in the daytime. We need to go for excretion in the early hours of the morning or at the night time. In between the day, we need to control it.( Female labourer, 30 years)*

#### **5) MENTAL HEALTH PROBLEMS**

The anxiety of workload and lower wages that leave the workers in impoverishment reflects with the responses of the brick workers. However, they did not signify as the significant mental health problem, but this exists in the mind of every worker. The women workers mostly suffer from it.

A women worker said about the anxiety about their condition,

*After my marriage, I started brick works. I was working as an agricultural labourer before doing this. Brick works are more laborious than agricultural work. Moreover, each year migrating place to place is very hectic. I lost my newborn child last year because we have not enough money for his treatment. How long we will do this work. I want to go back to my village and do agricultural work, but my husband is not allowing me to go back. ? I feel very frustrated sometimes and feels like to drown myself in Ganga.(A Female labourer, 25 years)*

The mental health is ignored in the case of an informal worker, but they are most vulnerable to the mental health problems due to the economic vulnerability.

#### **6) SEXUAL HARASSMENT**

According to the key informant, the sexual exploitation is common in the brick kiln particularly of the women workers of the brick carrier category. She responded on the issue,

*There is a language problem of the workers of Jharkhand. They speak the tribal language, and they do not understand Hindi or the local dialect Bhojpuri. Secondly, whoever attempts the sexual exploitation of a female, he threatens her life. So, women keep silent over it. The local police also help local goons. There is no provision for the lavatory in any of the brick kilns here. So the women workers need to go for the toilet in the open field or near the bank of the river in the dark night or before the sun rises. The local goons chase the women workers there and assault them physically.(Female, 30 years)*

No women workers have responded positively to this issue, but the key respondent and one fireman have said about this issue. This fireman shared one incidence,

*There is an abandoned place near the brick firing furnace. We used to monitor baking process day and night. One night I heard screaming of women from an abandoned place adjacent to the kiln. I know that someone was assaulting a female. I kept silence. I am an outsider and don't want to be killed by local goons.* (Male, 24 years)

The sexual harassment is the severe problem in the brick kiln. It exists in every brick kilns, but no one openly discusses it. Due to fear and shame, no victim admits openly about it.

There is also gender dimension included in the health seeking behaviour of the workers. A female worker, who had to suffer from the respiratory and lung problem, said

*I am suffering from a lung problem, and sometimes I vomit blood too. However, my husband does not allow consulting any doctor. He had beaten me once when I asked him for some rupees for going to a private hospital. Once I went alone to consult a doctor without seeking permission from my husband, he did not like it and beat me very severely.* (Female, 28 years)

The pain and illness suffered by women workers are routinized for them. A female worker said,

*I delivered a baby two years ago, and she died after 20 days. Now, I am not getting pregnant. My husband told me that he would leave me if I do not give him a baby, preferably the son in this year. My husband beats me and threatens, "if you can conceive, it is fine otherwise I will not spend anything to treat you."*

It shows the difficult situation experienced by a women worker for her reproduction. There is added burden on women brick kiln workers. They have to manage household chores, brick kiln works and suffer humiliation by male members if they do not follow their subjective requirements.

### **7) CHILDREN HEALTH PROBLEMS**

The researcher observed that the most of children appear as affected by malnutrition. The common health problems of children are measles, diarrhoea, skin rashes etc. The children who play in the brick field, or the child labourer who work with their family, are most vulnerable to diseases. Some children are most affected by seasonal diseases.

### **8) ALCOHOLISM**

Alcoholism is the major problem in the lives of brick kiln workers. In the interview, it has found by the researcher that every male worker and some of the female workers were alcoholic. The problem of alcoholism in the brick kiln can be explained in two different levels.

All of the male workers were alcoholic. A male respondent said about his alcohol addiction,

*I am labourer, and I used to work hard from morning to evening, and sometimes till late night. My body pains like hell. In this condition, alcohol makes me sleep. Yes, sometimes I drink too much, but on some occasions only. If alcohol is dangerous, then we have not much money to buy the good thing for our body and health.* (Male labourer, 32 years)

The brick workers who consume alcohol to reduce their pain and anxiety of workload, but they do not understand that it is affecting their health and socio-economic life. The selling of local liquor is also supported by brick kiln owner and local police.

### **HEALTH CARE SEEKING BEHAVIOR OF BRICK KILN WORKERS**

The health problems in the brick kiln economy are inevitable where the living condition and working condition is not appropriate for healthy living. They work hard to earn wages until they have the energy to work. If they became ill, they do work till they can tolerate the pain. Otherwise, they may lose a whole day work, and it will lessen their wage amount. The workers try to minimise expense on their treatment; they chose the cheapest option for seeking treatment.

**TABLE NO:5 OPTION OF SEEKING HEALTH CARE AT THE PRIMARY STAGE OF SICKNESS**

The option of seeking health care at the primary stage of sickness	Workers			Total
	Moulders	Carriers	Firemen	
1. Self-medication	15	3	1	19
2. Visiting local unqualified doctor	9	3	-	11
3. Visiting qualified practitioner	-	-	1	1
4. Traditional medicine	4	4		8

*#based on health interview response, # multiple responses excluded*

The table shows that the maximum number of patient chose to self-medication at the primary level. The self-medication is primarily opted for relieving musculo-skeleton pain by the workers. The manager provides these medicine. The manager keeps these analgesic medicines and gives to workers who complain the body ache. However, in the data above, the worker visited locally unqualified was mainly to their child's sickness.

A male brick carrier said about self-medication, which he follows most of the time,

*Ifeel body pain most of the times. At the evening I drink alcohol when I have money. If Ihave notmoney, then I need pain killers. I ask the manager; he gives me painkillers. That is free. (laugh). (Male labourer, 30 years)*

If a worker does not get cured, then they send a worker to the local doctor. This local doctor is an unqualified doctor, recommended by the owner and the manager.

On the question of experience with this unqualified doctor, a brick worker said,

*One day I had a loose motion,and I became very weak. The manager gave a paper slip and asked to visit a local doctor who does not take a fee from us but kiln manager.I went immediately to this doctor. He checked my condition and said, "paanichadhanapadega". He administered methree saline bottles. I know the owner will cut the expense of those three bottles of saline from my wages.(Male labourer, 40 years)*

On the question of visiting other doctors in the locality, he replied,

*Our owner recommends only this doctor. Therefore, he comes to our shelter to give saline or visit patients in serious condition.Our owner gives him some money.*

If the worker does not get relief, then the ill workers or child has to consult the more experienced doctor whose clinic is situated nearby local marketwhich takes hefty consultation charges. In this situation, brick workers take advance money from the manager and do not take weekly allowances.

A female brick moulder said,

*I am a helpless widow and havefive children. I left the village and started work in the brick kilns. Now, my children are also working in it. I am growing old so*

*getting body aches all the time. As a female, suffering is my destiny. I have seen good days in my life, but I try to give enough food to my children. These days my elder daughter is very sick. The doctor said that she is suffering from Tuberculosis. I do not have enough money. I cannot go to the private clinic as fees are too high. Once, I will get the total wages at the end of the season then I will seek treatment for her in our village by a local herbalist.* (Female labourer, 27 years)

This women worker knows the reason of illness and pain, but she refuses to get over it. She does not seek her treatment because she fears of losing earned wages on it. She also concerns about her daughter illness, but she is unable to treat her in current days.

A female brick carrier said,

*Since morning to evening, I carry bricks on my head. I am getting constant stomach pain. The local doctor, I have gallbladder stone. I take rest when pain is unbearable, but I know the only cure is to get it operated. Moreover, for the operation, I need a big amount of money.* (Female labourer, 30 years)

The respondent showed the helplessness in need of health care. She accepts 'minor body pain' as a normal health condition, and she continues laborious work without seeking treatment for it. A women worker said about the use and Health Sub-Centre in the locality,

*That centre does not open every time, so we do not visit there. The nurse is very bad. She does not allow us to enter the health centre. She comes to brick kilns only for giving polio drops to children.* (Female Labourer, 31 years)

The newly built health sub-centre is not functioning well. The brick workers do not know the function and facilities of health sub-centre. The Village Health Nurse (VHN) often visits the other side of the village, but rarely visits the brick kilns.

### **CONCLUSION**

The adverse working conditions in the brick making process result in health complications. It was experienced across each category of the workers. The brick moulders and brick carriers experience body ache and joint pain due to their long working hours and repetitive work. The works process of firemen is tiring and most arduous. The health problems reporting was less among firemen, but the respondent has said about the long-term health complication experienced by other firemen in their villages. The continuous working process in heat and dust, they are the most vulnerable to major health problems in the later stage of their life. The brick kiln workers suffer from several health problems which result from the adverse working condition. The organisational set-up of working process demands hard and laborious work throughout the winter and summer season. The workers work tirelessly to earn their maximum wages in the process. This troubled situations result in the occupational health hazards. Most of the brick workers in the field study said about the health complication due to the working process.

The musculo-skeleton health problem like backache and headache were the common health problems which experienced by brick workers. The findings have done by observation and responses of the respondents, and epidemiological study is needed to confirm the observation. However, the firemen are experiencing the health complication due to their nature of work process. These extended work hours put tremendous stress on their bodies and minds. Women also face increased risk of health problems like a low backache and multiple joint pains due to the repetitive jobs they perform and working in uncomfortable positions for a long time (sometimes working with babies in their laps). Women workers also suffer health problems due

to adverse living conditions around the brick kiln premises. Women worker have the dual responsibility for household works and brick works. Despite health complication, they have no decision making power on seeking health care. Further physical and sexual exploitation is rampant in many brick kilns. The physical exploitation of the women workers has reported from brick carrier category where they have to work tirelessly.

The brick kiln workers are socio-economically deprived community. The advance-money bondage makes them economically weak where their wages are also less paid. The health situation is not good for brick workers across each category, and they are prone to ill health due to adverse working conditions. They have low income in brick kiln works, so they depend on manipulated health facility provided by owner and quacks. Thus, the provision of social security and health insurance by the government to these particular categories of workers become essential for mainstreaming this labour force.

*Acknowledgement:*

This paper has been a part of M.Phil work which the author did in Jawaharlal Nehru University, Delhi. I must thank Prof. Ramila Bisht for her persistence guidance and encouragement. I would also like to thank my friends who consistently encouraged me while writing this paper.

**REFERENCES**

- Bremen, J., 1996. *Footloose Labour*. Cambridge: Cambridge University Press.
- Central Pollution Control Board report on Brick kilns, 2016, CSE India.
- Chopra, S., 1982. Bondage in Green Revolution Area: A study of Mujaffarnagar Brick Kiln workers. *Social Scientist*, March, 10(3), pp. 38-55.
- Doyal, L. & Pennell, I., 1979. *The Political Economy of Health*. 4th ed. London: Pluto Press.
- Kainth, G. S., 2009. Push and Pull Factors of Migration: A Case study of Brick kilns of Punjab State. *Asia Pacific Journal of Social Sciences*, 1(1), pp. 82-116.
- Olsen, W. k., 1997. Marxist and Neo-Classical Approaches in India. In: T. Brass & Marcel Van Der Linden, eds. *Free an Unfree labour*. Berlin: Peter Lang, p. 380.
- Bremen, I. Guerin & A. Prakash, eds. *India's Unfree Workforce*. New Delhi: Oxford University Press, p. 21.
- Prakash, A., 2009. How (Un)free are the Workers in the Labour market?. In: J. Bremen, I. Guerin & A. Prakash, eds. *India Unfree Workforce*. New Delhi: Oxford University Press.
- Qadeer, I. & Roy, D., 1989. Work, Wealth And health: Sociology of Worker's Health in India. *Social Scientist*, 17(5), pp. 45-92.
- Sharma, A. N., Dutta, A. & Ghosh, J., 2012. *Development Research on Bihar 2010*, New Delhi: Institute of Human Development.
- ILO (1993): *Fifteenth International Conference of Labour Statisticians, Report of the Conference*. ICLS/15/D.6 (Rev. 1). International Labour Office, Geneva 1993. P.2
- ILO, 2011. *Buried in Bricks: Bonded labour in Brick kilns in Afganistan*. Available at [www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/.../wcms\\_172671.pdf](http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/.../wcms_172671.pdf) [Accessed 5/9/2016]
- Labour Bureau, Government of India, 2004. *National Industrial Classification*, available at [http://mospi.nic.in/Mospi\\_New/upload/nic\\_2004\\_index.htm](http://mospi.nic.in/Mospi_New/upload/nic_2004_index.htm) [Accessed 2/5/2013].
- Mehta, R., Pandit, N. & Parmar, R., 2010. Morbidity profile of Brick Kiln workers around Ahmedabad city, Gujarat. *Healthline*, July-December, 1(1), pp. 1-5.
- Shramshakti Report(1986) *The National Commission on Self-Employed Women and Women in Informal sector*, Ahmedabad



Slavery in India's Brick Kilns & the Payment System. (2017). *Anti Slavery International*. Retrieved from <http://www.antislavery.org/wp-content/uploads/2017/09/Slavery-In-Indias-Brick-Kilns-The-Payment-System.pdf>