

**CHAPTER-VII**  
**CONCLUSION AND RECOMMENDATIONS**

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### CONCLUSION AND RECOMMENDATIONS

#### 7.1. Introduction:

The present research is an in-depth study of an agglomeration of brick kilns in Tufanganj-I Community Development Block in the district of Koch Bihar in West Bengal, India. The study area comprises of six mouzas with 24 brick kilns. The study was conducted to explore issues relating to brick manufacturing with special reference to: (1) finding out the factors that encourage the establishment of brick kilns in a particular area, for example, the present study area; (2) exploring the socio-economic profile and working conditions of the workers in the brick kilns of the study area; (3) finding out the impact of the brick kilns on the overall economic development of the region; (4) revealing the impact of brick kilns on environment of the immediate surroundings of the kilns and beyond.

These issues were explored in an overall context of brick manufacturing in both developed and developing countries like India. It has been found that due to use of low technology in brick manufacturing in India, this sector still remains today labour intensive and traditional in nature. This labour intensiveness of the industry is one of the main reasons for keeping the industry unorganized. It may be added in this context that most of the labourers are unskilled. And those who are skilled are not formally trained. Their skill is acquired after a long work experience in the industry. Thus, the labourers are not formal degree holders, even some of them are illiterate. While this sector is growing at a faster rate, 9% annually and contributes 10% of the GDP in India, the brick manufacturing has not yet been treated as an organized sector. This is not in conformity with the fact that India is the second largest brick producing country after China. 250 billion bricks are manufactured and about 15 million workers are involved in this sector.

#### 7.2. Summary of the Study:

The whole work is done to fulfill the selected objectives on the basis of related hypotheses. The researcher attempted to cover the stated objectives in the different chapters under the various broad headings. For this purpose, 10 to 100% stratified random and sometimes purposive samples were taken. The sample design covers from the owner of the kilns, the workers, the farmer or the seller of top soils. To understand the environmental quality soil and water samples have been collected from the quarried land, adjacent to the quarried land

and from the unquarried land. A GPS survey has also been conducted for mapping of the kilns and identifying the degraded land. The findings were analysed by using various statistical methods and on GIS environment.

For this research 6 mouzas viz. Maradanga, Soladanga-II, Velakopa-II, Ghogarkuthi-I, Chilakhana and Shikarpur are taken into consideration as all 24 kilns are located among these mouzas. Besides these mouzas, some other adjacent mouzas are also chosen for the study. The description of the study area is discussed covering physical background on which the relief, geology, drainage system, climate, soil and natural vegetation are discussed. As the study area covered only a small portion (about 1%) of the total area of the district, the description of Koch Bihar district has been taken into consideration. A detailed land use and land cover situation of the district as well as of the study area is made based on 2011 census data. For understanding the socio-cultural background of the study area the demographic condition, the literacy status, occupational pattern, transport and communication system and industrial situation of the district as well as of the study area have been presented on the basis of 2001 and 2011 census data.

The process of brick making includes soil quarrying, winning of clay, transportation of clay to the kiln site, preparation of clay, moulding of clay, transportation of moulded bricks, drying of green bricks, loading of bricks to the dock, burning/firing process, unloading of burned bricks, sorting of bricks and finally dispatch to the market for sale the product. The processes are done either manually or mechanically depending on the nature of economic development. The main process of manufacturing bricks has also some sub-sections such as winning of clay is made mechanically or manually, the clay preparation has followed 4 major steps such as sorting and cleaning, crushing and grinding, sieving and blending, wetting-tampering and mixing. The moulding of clay has three major parts namely hand moulding, machine moulding, turnover moulding. The green bricks should be dried before burning. This drying process is done by natural drying under the sun and by artificial drying in the kiln through the hot flue gases during the burning process. There are several methods of burning of moulded green bricks.

Several technologies are used throughout the world for brick manufacturing. The technologies of firing of bricks vary from very traditional intermittent (Clamp) to highly mechanized continuous kiln (Tunnel kiln). The intermittent clamp has two types without

stack (Clamp, Scove & Scotch) and with stack (Down Drought Kiln). Again, continuous kiln has two types namely moving fire kiln and moving ware kiln. There are several sub-types of moving fire kiln. The moving ware kiln is subdivided into tunnel kiln and vertical shaft brick kiln. The discussion in terms of advantages and disadvantages of different firing processes, the technology concerned with them is presented with proper illustration.

The performances relating to the different technologies concerned are discussed on the basis of energy consumption, environmental parameters, fuel efficiency, production and product quality and finally the financial performance. For this several tables are incorporated and represented diagrammatically for better visual representation. Finally, a composite score is done on the basis of above discussion and try to materialize the performance of different kilns.

Like any other manufacturing industries brick kiln industries follow some locational factors such as availability of a particular type of soil (clay loam), sources of energy, availability of cheap labourers, transportation, availability of capital and demand of the bricks. Various scholars like Weber, Losch, Isard, Renner, Smith, Fetter, Palander, Rawstron and others propounded various model for the location of industries. In the present study it has been observed that the Weber's least cost theory and Renner's theory is somehow applicable in the location of brick kiln industries in the study area. Isodopane of final product and acquiring of raw materials are involved in the development of brick manufacturing industries. The agglomerative factors can also exert impact in the case of concentration of brick kilns in Maruganj region. The Losch's profit maximization theory may somehow be associated with the brick production. The Renner's theory of locational factors is applicable in the study area. Rawstron's principle of industrial location may be applicable to the brick kiln industry. He pointed out three restrictions such as physical, economic and technical which are faced by the brick kilns in the study area.

It is observed that out of 40 kilns in the district, 24 brick kilns are located in and around Maruganj region within 6 mouzas. The location of brick kilns is shown on the buffer zones with 3 km radius from Koch Bihar, from Tufanganj town as well as from Maruganj region. The availability of soil, sources of energy, and sources of water, transportation facilities and demand of bricks in the district are main locational factors.

Financing and marketing are two basic fields which play a vital role for the development of industries. The researcher has discussed in detail in the study about the

financial and marketing issues. As brick manufacturing is a seasonal activity which runs for a period of maximum 6-7 months, it requires a huge amount of capital for a short period of time. From purchasing of raw materials to cost of labourers; from advance payment to weekly wage payment; from raw brick preparation to firing and marketing, the brick field owners have to arrange huge money to run the whole process successfully. The owners have to arrange money from accrual, money lender, promoter and contractors and a nominal amount from bank loan. Thus, it is a great pressure on the owners who have to take all initiative during and after sales of the fired bricks. The success of return of investment (ROI) depends on the efficient management of marketing of the owner as well as the manager. Profit, profitability and cost-benefit-analysis are discussed covering all kilns in our study. The major constraints of finance and marketing are discussed in detail in the study area.

The researcher has attempted to explore the various types of workers employed in the brick kiln sector in the study area. In brick manufacturing, the workers are generally categorized into 6 groups such as supervisor, general workers, dock workers, latganga, daily labourers and other workers. The supervisors are of three types: manager, munshi and sardar (middleman). Pathera or moulder and rejin or transporters are regarded as general workers. The dock workers include beldar or loader, coalman, fireman and paka bagdar or unloader. The whole family members work as a group it is called latganga. Besides, these types of workers there are also daily wage labourers and other workers. Thus, brick kiln sector absorbs a large number of skilled and semi- skilled workers and has exerted a positive impact on economy in the study area. The recruitment process and wage structure of the workers have been discussed. A detailed survey report about the number of workers and wages received by the different categories of workers are presented and discussed in detail.

The working conditions of the workers play a vital role in the living condition of the workers. The working conditions include hours of work, rest periods, work schedules etc. The worker's performance depends on the status of living conditions of the workers. In living condition, shelter, footing, clothing, safety, availability of clean water is discussed. For this study the researcher surveyed 150 families with 364 persons. The housing conditions of the workers, their basic conditions are analysed on the basis of the survey report. The health condition of the workers is also discussed. For this detailed survey report has been analysed on the basis of 312 workers. The workers are suffering from various musculoskeletal disorders (MSDs), digestive and other health hazards. All these have been discussed

For studying socio-economic profiles of the workers the researcher has taken 364 samples from 150 families both male and female including children out 364 samples, 312 samples are described. The children are excluded as the owners and the family members confess that the children are not allowed to work. But the author during his survey noticed that the children were working in various form. However, the present researcher has attempted to map the position of workers (Male 167 and Female 145) in the form of household units, nature of household, ownership of the house, bank account, availability of household items, debt condition, advance system, spending and saving behavior, overall health situation of the workers.

For discussion of the socio- economic condition of the female workers 145 samples are studied. The researcher discusses the age group, caste, religious, literacy, composition, age structure and number of children of the women workers. This section also discusses about the land holding size of the female workers. The workers performed by each worker, income status, the nature of migration of the female workers. In this regard the researcher has tried to explore the possible causes of migration in terms of push and pull factors in the Light of Lee's theory of migration. The author also tries to explore the working condition of the women workers in the lean season. An attempt has been takes to understand the sexual harassment of the women workers at the work site, their household work and leisure period and economic freedom of the female worker. Thus this chapter is fully devoted about the discussion of the workers Socio- Economic condition in our study area.

For studying the environmental impact of the brick kilns the hypothesis of study has been that the agricultural land and environment are being deteriorated due to the expansion of brick kiln industry to the adjacent area. To test the hypothesis, the researcher has taken various criterion such as depth of water table (in and adjacent kiln sites), soil tests (Texture, pH, EC, OC, P<sub>2</sub>O<sub>5</sub> and Potassium) and GPS survey in the study area. For measuring environmental pollution, the researcher has referenced Dulong's formula, world Banks (2007) estimates, Le & Oahn's estimation and Emission Inventory Improvement Programme's (EIIP, 2001) estimation of SO<sub>x</sub>, NO<sub>x</sub> and CO emission.

The loss of top soil hampers soil fertility and production of crops and consumption of fertilizer. Water logging, solid waste generation by rubbish and broken bricks and burning of

coal and wood and air pollution by combustion of coal and wood have been found as major factors of environmental degradation.

### **7.3. Major Findings:**

Manufacturing of bricks and its relevant aspects in Tufanganj- Block-1 of Koch Bihar district have been thoroughly studied in 6 chapters. The main objectives of the study have been examined with the help of different methodological inputs. For this study the researcher has used various information either from secondary or primary sources. The collected information has been analysed systematically and presented in different chapters. The major findings of the study are being presented as under:

1) Brick is still the cheaper and important material in the construction industry. In spite of the introduction of substitute materials for construction, the use of ordinary red clay brick is still popular. Thus, it is growing at the rate of 9% annually and its contribution to India's GDP is 10%. Various reports suggest that India has produced about 250 billion unit bricks and this industry employed 15 million (3.11%) worker out of 481.7 million workers in India in 2011. The brick sector in India consumes 24-35 million tons per year (MTPY) and ranked 3<sup>rd</sup> after power and steel industry. It consumes about 15% of total production of coal. The making of bricks has a long back history. The sun dried bricks were used for the first time in 8000BC and fired clay bricks were used in 4500BC. The evidence of fired bricks has traced back 910±10 AD at Gosanimari, Koch Bihar. The first traditional brick kiln was set up at Maruganj of Koch Bihar district in 1965.

2) In the study area the processes of brick making are mostly traditional in nature. From the soil quarrying to marketing the researcher has observed the similar processes that have generally practiced throughout the South East Asia. It is observed in the study that besides preparing bricks in the kilns site, the owners of the brick kilns provide their moulds to the farmers who prepare green bricks and sell to the owner at a rate of Rs. 2000/- per thousand bricks. This is one of the most striking features that the researcher revealed in his study area. The preparation of clay for making the bricks was done by cow or by foot treading which was replaced by electric driven pug mill.

The moulded bricks are generally dried under the sun as the present area is located in the tropical climate where the brick making season (October to March) is generally dry and sunny. It is evident from the study that most of the loading and unloading of the green bricks and burned brick are by manually and carry load by head and sometimes used 'bank'.

The present study discusses in detail about the burning processes of green bricks. A query highlights that there are traditional processes (clamp) to modernized (Tunnel kiln) method of brick burning. It is an established fact, that the 70% of kilns are Fixed Chimney Bull's trench kiln (FCBTK) in Indo- Gangetic plain of India. This has been followed in the brick kilns of the study area. But the present study found out that the VSBK is the most efficient technology in all respects.

3) Several theories of industrial location have been highlighted in the present study and their implications on the location of brick industry in the study area. It is observed that the Weber's theory, Losch's theory and Renner's theory may be applicable for the location of the brick industry. The restrictions mentioned by Rawstron, may also be applicable to the industry.

The locations of the brick kilns in the study are mainly concentrated in and around Maruganj religion of Tufanganj Block -I within the 3 km radius of the study area. Out of 40 brick kilns in the district, 24 brick kilns (60%) are located in the study area. Most of them are located along the NH-31. The main factors of location of brick kilns are included as availability of top soils, sources of energy, sources of water and transportation.

It is observed that the clay loam (sand=20-45%, clay=15-53% and silt- 27.40 %) is suitable for brick making. The samples of soils which are collected by the researcher fall under the suitable zone of brick making.

The Assam coal is used for burning of bricks in the study area. Total 6059 tons coal and 211.25 tons woods are used in the study area. Availability of water is one the important factors of brick kiln location and it is shown by water table map. Road density is moderately high in the study area. The average transportation score (ATS) is also high in Tufanganj-Block-I. Availability of cheap labour and enormous demand make the sector more suitable to the present study area.

4) Regarding marketing of bricks of the study area it has been found that the highest consumer of bricks is school building construction followed by housing sector (115.95 lakh & 82.01 lakh bricks). The prime cost of brick production includes the cost of raw materials (Rw), overhead cost (OC), wage cost (Wg) and fall cost (Fu). In the study area the average prime cost was 34.49% and total was Rs. 17, 12, 22,252/- The main market of brick is spread over Koch Bihar -I&II and Tufanganj-I where 45% and 25% sale has been made. Transportation cost is high in Sitai and Sitalkuchi and it depends on distance factor. The selling and distribution cost covers only <1%. i.e. Rs. 1.18/- lakh on average. 42% owners follow district marketing channel i.e. producer to customer and 83.3% owners follow any three marketing channel for their product.

For financial analysis the brick kilns need three types of capitals such as fixed, working and mixed capital. Further, it needs fixed & variable costs which amount as 38.41% & 61.59% respectively. Main source of finance is personal accruals and local money lender. The average interest rate of money lender is about 96% to 120 %. Total direct and indirect costs of brick manufacturing in the study area are Rs.1191.37/- lakhs and 1175.6 lakhs. Out of different direct costs, cost of coal has highest contribution (30.17%) followed by cost of raw materials (19.52%) and wages of moulder (18.32%). On the other hand, income tax (34.18%) and interest and other liabilities (20.05%) contribute as indirect cost. Total gross profit and net profit of the owners were Rs. 1785.62 lakhs and Rs.1205.29 lakhs. The cost per unit brick is Rs. 5.02/- and average sale per unit brick is Rs.7.58/-. Thus, the net profit for per unit brick is Rs.2.56/-. The cost of wages per brick was Rs. 1.28/-. Average GPR is 50% and value of NPR ranges from 30.15%-36.0%. Operating profit ratio is highest in Sumana-I & lowest in Saha-II. The cost of goods sold ratio (COGS) varies from 64.0%-66.85% and average Gross profit margin is 33.49%.

5. Total brick manufacturing is characterized by a strict division of labour where 6 categories of workers are engaged- namely supervisor, general workers, dock workers, latganga, daily labours and other workers. Total wages cost was Rs. 601.69 lakh. Out of total 7900 workers, pathera or moulder constitutes 23.73%, loader and unloader constitute 62.70%. 96% family of the workers lives in rent free houses provided by owner. 42.67% and 46.0% wall material of the houses are made of bamboo and green bricks. 52.0% houses are shaded by tin and 75.34% floor materials are made of broken bricks.

75.82% have no sanitation, 93.13% respondents do not have bathroom facilities, 66.76% uses common toilet, 65.93% uses common tube well for drinking water, 50.82% women bring drinking water about 200m away from their shelter and 93.96% have electric facility but they have one or two PL light only. 86.67% persons use temporary latrine which may contaminate underground water. 90.67% workers use firewood for cooking. The workers who have been surveyed works for a period of 2-4 years (18.27%) followed by 4-6 year (15.38%). 35.26% male members works 3-6 days whereas 29.49% female workers work for all 7 days in a week. The male members work 6-8 hours in a day whereas 24.36% female members work 10-15 hours. 22.44% female respondents reported that they have no rest hours and 25% male workers enjoy 2 hours' rest during day hours.

Average age of the workers is 37.43 years and it is evident that 77% workers age 30-59 years. 40.72% and 23.08% male and female workers age lie between 30-44 years. Most of the common morbidity symptoms of MSDs are shoulder pain (55.45%) and low back pain (54.49%). 42.50% male and 33.54% female workers have reported that they have been suffering from more than one respiratory disorder. About 58.44% workers had reported that they have been suffering from fever including malaria, 57.97% and 33.52% have been reported as headaches and weakness problems.

6) 88.67% respondents have reported that they belong to the unitary family and 83.88% said that they have nuclear family. 88% male workers have own bank account whereas 92% female workers have no bank account. About 113 families think the household items are necessary, 73 families said they have no items, 121 families wish to purchase the items and 89 families reported that they have no ability to purchase the items. 90% respondents reported their household income is inadequate to fulfill their requirements. 96% families have debt to be payable of which about 68% debtors are their employer. Thus 68% families take *dadan or peshgi* from the brick kiln owner through *sardars* or middlemen. 98 families have taken advance from their employer. 62.25% have taken advance of amount Rs. 7000-11000.

56.33% reported that the wages they have to pay weekly spend for food. 84% families have no microfinance loan and 98% families reported that they have spent their all money earned during the last year. 74.67% have reported that their financial situation is worst which compelled them to choose as the brick kiln workers.

6) About 50% women's workers age lies between 30-44 years. 43.45% women belong to the general category of which 60% are Muslims of which 23.45% belong to OBC-A category. Thus, due to ignorance the Muslim women workers do not possess caste certificate. 60% female workers are Muslim and 40% were Hindu community. 15.17% female workers are illiterate and those are literate (42%), got primary (31.03%) and above primary (11.11%). 42.76% respondents were just literate who only write their name. About 39% women got married at the age 15-17 years that means they were compelled to marry before attaining their adulthood. 19.59% married women have no children, 41.89% have 1 child and 1.35% has 4 children. 15.69% children have no education and 52.46% have primary education. 55.86% women have no land in their own area.

27.59%, 37.93% and 25.52% women workers performed as moulder, reja and paka bagdar. Rs.7.98 lakh earned by the women workers as a whole during a season. 70.34% women workers migrated to the kilns from nearby villages within the district and only 2.76% women have come from other state. About 24% women are compelled to migrate due to poverty, 13.79% for lack of work in their origin, and 15.17% due to irregular work in their place of origin.

On the other hand, 42.76% women workers migrated to the kiln due to the attraction of direct income and 22.76% for security of income. On returning to their origin, 24.14% women work as agricultural labourers, 34.48% are engaged in household work. About sexual harassment 68.28% women do not agree to answer, about 17% have positive response and 14.48% confess that there is no incidence of sexual harassment in their work site. 60% women workers perform all household chores and 40% get help from their family members. In 82.8% cases economic decision was taken by husband before earning but after earning women's share on economic decision making increases to 32.4%.

7) Agricultural land is quarried for top soil at depth 1-4 feet. The excavation of agricultural land is increasing gradually from 1 foot to 4 feet and so on. 43.44 acre area has been degraded in each year by quarrying of 2 feet deep soil from agricultural land. The total land under brick kilns is registered to DL & DLRO office was 361.38 acre, whereas the actual land under brick kilns by GPS survey was about 482.20 acres (75% increase). Maradanga and Soladanga-II are the worst affected mouzas in terms of land degradation. Total annual loss of top soil was 117.22 cubic feet during 2015-16. Annual loss of top soil is also highest in Maradanga Mouza followed by Ghogarkuthi-I

Average pH in unquarried, adjacent quarried and quarried land is 5.50, 5.85 and 5.85. The availability of organic carbon (OC) and potassium have decreased significantly by 0.76 to 0.20 and 122.27 to 75.91. The production mustard is absent in quarried land. The production rate of maize has decreased by -18%, Boro -22%, and Amon Paddy -23%. The use of fertilizer has increased significantly in the quarried land. Total permanent and temporary water logged area are measured as 323.94 acre and 209 acres. Total 1563.22 ton and 2.37 ton solid wastes have generated by coal and wood combustion.

8) Maradanga and Ghogarkuthi-I are the highest generator of solid wastes. About 4553.16 ton solid wastes by broken bricks and rubbish are generated in the study area. 15508.39 ton and 73.38 ton CO<sub>2</sub> have produced in the year 2015-16 by combustion of coal and wood respectively. The amount of SPM during 2015-16 was 8955.50 tpy and .44 ton, CO 7.24 ton and 2.75 ton produced by coal and wood combustion. 422.79 ton and 73.72 ton PM<sub>10</sub> and PM<sub>2.5</sub> have generated by coal combustion, whereas the amount of SO<sub>x</sub> and NO<sub>x</sub> was 472.60 ton and 27.27 ton by coal combustion. Besides, the above mentioned pollutant, wood combustion has also contributed 1077.38kg HC and 6.34kg PAHs to the atmosphere.

The average water pH at kiln sites was 7.40 and outside kilns it was 8.0. The pH in post-monsoon period was more basic (7.4-8.5) than pre-monsoon period (6.6-7.8.0). The average TA were 220.3 ± SD 181.0 and 310.83 ± SD 134.7 mg/L in kiln site and outside kilns respectively. From the study it is observed that average EC and TDS in kiln sites were 138.83 µS/cm and 80.33 mg/L, whereas, in the outside kiln area the average value were 67.17 µS/cm and 41.33 mg/L. The free CO<sub>2</sub> value of the water bodies in the kiln site varies 12-47 mg/L, whereas in outside kiln area it was 6.5-13 mg/L. The average DO in kiln site was 5.67 mg/L and outside kiln it was 7.08 mg/L. The average concentration of chloride in the kiln site was 48.7 mg/L with SD ± 30.3 mg/L and outside kiln it was 20.17 mg/L with SD ± 3.37 mg/L. The average HCO<sub>3</sub><sup>-</sup> in the kiln sites was 224 mg/L and outside kilns it was 326.45 mg/L as CaCO<sub>3</sub> whereas K<sub>1</sub> and O<sub>1</sub> sites show the concentration of Ca<sub>3</sub><sup>2-</sup> 20mg/L and 50 mg/L respectively. Average TH in the kiln sites was 161.5 and outside kiln site it was 77.00 mg/L. Post-monsoon period shows higher TH as the wastes from the kiln sites washed away to the water body and increase the TH.

#### **7.4. Recommendations:**

- a) A detail and intensive work has been performed by the researcher during the last few years. Taking into considerations the major findings of the work, the researcher recommends the following suggestions for the improvement of the brick kiln industry and the condition of workers and for related issues. The brick kiln industries yet to be regarded as unorganized sector in different labours laws. Thus, policy should be initiated to recognize the sector as industry and organized sector.
- b) The traditional method of firing technology i.e. FCBTK which is prevalent in the study area should be replaced by VSBK or by Natural Draught Zig Zag Kiln as these two kilns are most efficient. Govt. should enact laws to ban the traditional brick making process.
- c) The quarried land should be reclaimed and ensured that it is not to contaminated by brick kiln wastes.
- d) The permanent water logged area may be used for pisciculture and irrigation.
- e) Fired clay bricks consume about 600 million tons of soil in India and 0.22 tons in the study area and 43.44 acres agricultural land is degraded in a year. Thus, encouragement should be given to the kiln owners to manufacture Fly-Ash-Lime-Gypsum (FAL-G) bricks and concrete bricks.
- f) Policy should be formed for using more renewable energy. This would reduce negative impacts on environment.
- g) Clay solid bricks should be diversified like the production of hollow bricks, perforated bricks etc. This will reduce the amount of clay in making bricks.
- h) There should be provided protection of basic labour rights, health and occupational safety to the workers.
- i) Proper monitoring should be provided from the Government side to ensure the enactment of health scheme (*Sasthya Sathi*) and provident fund contribution (PF).

- j) Non-Formal and adult education system may be introduced for the education of dropout children as well as for illiterate workers.
- k) For elimination of financial constraints, the Government should give directions to all banks and financial institutions for providing financial accommodation to encourage rural- based brick kiln industry.
- l) Government should initiate proper mechanism to control violation environment laws
- m) The contractors or Sardar will have to obtain license U/S 12 of contract labours (Regulation and Abolition) Act, 1970.
- n) The license of the owners should be renewed at a fixed interval of time for abiding by proper laws and regulations.
- o) Inter-State-Migrant Worker Act”1979, “Minimum Wage Act” 1948, “Payment of Bonus Act” 1965, “Maternity Benefit (amendment) Act” 2017, The sexual Harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013 should be followed properly in brick kilns.
- p) The last but not least, the NGOS may play a vital role in creating general awareness among the workers for elimination of child labour and gender disparity.

### **7.5. Concluding Remarks:**

In conclusion, it may be said that the brick kiln industry in the study area has several complex dimensions. Some of them have been explored by the present researcher. Further research in future may reveal the other dimensions of this industry. The demand of bricks will increase day-by-day with rapid urbanization process. Thus, proper policies should be initiated to cope up the issues the researcher has mentioned.