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## Educational Status of Brick Kiln Workers in Andhra Pradesh: Patterns, Barriers and Opportunities

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### Abstract

An essential component of the nation's industrial and infrastructure growth is construction activity. For thousands of unskilled migrant workers, the brick kilns provide a living. Every year, around a million marginal and landless farmers travel to Andhra Pradesh in quest of seasonal work due to the work's seasonal nature, which draws migrant labour from nearby states. These labourers migrate along with the families. Each unit consists of 15-20 members comprising of adults and children, and all of them are engaged in brick kiln work. Brick kiln workers always remain under heavy work pressure to work and produce a greater number of bricks during peak seasons with limited facilities, resources and management skills. The present research on the Socio-Economic conditions and educational status of brick kiln workers is one of its kind which needs the attention of government authorities. It is a unique study wherein the social and economic conditions are analysed which are drastically impacted by the overall working conditions of this exploited labour class. To study the Educational Status and socio-economic conditions of brick kiln workers, 500 workers were selected as sample from Srikakulam and Vizianagaram Districts of Andhra Pradesh on random basis. Data was gathered through structured Interview Schedule and where demographic details were gathered along with the socio-economic issues faced by the workers. Statistical Package for Social Sciences was used for the analysis followed by findings, and conclusions were presented i.e., 1) In terms of educational status of workers, majority of the workers are No formal education, majority of the workers are not enrolled in any educational Institutions due to family responsibilities, 2) Regarding the educational programmes, majority of the workers did not notice any of the educational programmes conducted by their community due to lack of literacy and awareness, 3) It was noticed that, more than 54% of the workers are having their own houses, remaining are not having proper accommodation. Nearly 50% of the workers are not having pucca houses, staying in the thatched house, it is the reason that financial problems prevail among them, 4) With regard to migration of workers, it was noticed that, majority of the workers are migrated from other states. It seems that the skilled people are migrating from other states, 5) it was noticed that the policies of the initiatives designed by the government are not suitable or not implemented effectively for the benefits of the brick kiln workers, 6) Majority of the workers stated that, they are not providing any health insurance coverage facilities by the employer and also revealed that they, are suffered serious injury or illness due to their work in the brick kiln areas. The future scope of this study includes exploring long-term solutions to improve the economic conditions of brick kiln workers, such as strengthening policy implementation and enhancing access to welfare programs. Further research could focus on the impact of technological advancements and sustainable practices on workers' welfare and economic stability.

**Keywords:** Educational Status, Socio-Economic Conditions, Brick Kiln Workers, Policies for the welfare, Migration

### Introduction

Brick kilns are the unorganised sector of India. They have lot of potential showcasing recurring demand and low skill sets. Not only brick kilns are a source of employment to the uneducated village folk but also an excellent example of low

investment business venture for small time entrepreneurs. These are furnaces or kilns in which blocks of clay are baked or burned into bricks. These bricks are used in construction purposes which is the backbone of the real estate sector. Most kiln workers are either from the nearby

villages or migrants coming from other states of our country. They are predominantly members of lower castes such as Dalits and indigenous groups that are commonly amongst the discriminated lot.

Brick kilns in India are characterised by traditional modes of production, low capital-intensity, seasonal employment patterns and lack of adequate regulations. While there are no official estimates of brick production in the country, of cited figures from industry associations and experts suggest that there are over a lakh brick kilns in India, producing about 250 billion bricks annually (Lalchandani & Maithel, 2013; PSCST website) <sup>[2]</sup>. India accounts for about 10% of global brick production, next to China (PSCST website). The increasing demand for the production of bricks in the past decade or so has been closely linked to the spurt in construction sector, which grew at a Compound Annual Growth Rate (CAGR) of 10.3% between 2000-01 and 2010-11, and in 2015-16, contributed to 7.7% of the country's GDP (10, 64,068 crores) (RBI Database on Indian Economy). Estimates for employment in brick-kilns are also varied. The ILO estimates that about 10 million workers are employed in brick manufacturing (cited in PCLRA, 2012, p.10). Recent estimates from the NSS 68th round (2011-12), on the other hand, suggest that about 2.1 million workers are employed in brick-kilns<sup>1</sup>, of which 84% (1.8 million) are male.<sup>2</sup> In 2007-08, as per the statistics of the NSS 64th round, there were about 1.6 million workers in the brick sector, of which nearly 75% (1.2 million) were male. Between 1999-00 and 2011-12, the workforce in brick-kilns has grown at a rate of 5.80% (see Figure 1). From Census 2001 data, it can be seen that there are about 1.2 million workers in brick-kiln and related sector.<sup>3</sup> The brick-kiln industry is a predominantly rural one, and the share of the brick-kiln workforce in rural areas grew more than that in urban areas between 1999-00 and 2010-11. In this period, while the rural brick-kiln workforce grew from 0.29 million to 0.38 million, the urban workforce grew only marginally from 0.03 million to 0.04 million.

It is estimated that there at least 100,000 functioning brick kilns in India. The National Sample Survey Organisation (NSSO) estimated that in 2009-2010, brick kilns employed more than 5 percent of India's 460 million workers; which would equate to more than 23 million brick kiln workers. Several sources believe the actual number employed in brick kilns to be significantly higher. Many of India's brick kiln workers have migrated internally from the poorer states in India, and are predominantly from 2 groups that are commonly discriminated against such as Dalits, other low castes and indigenous groups, making them easier to exploit. Bonded labour is endemic among brick kiln workers. Each year, labour contractors (or brokers) secure the employment of workers through the use of the payment of an advance or loan. In the brick kiln, the worker will labour against the advance that he has taken. While the verbal agreement is made with the male head of household, and it is the male head of the household who receives the advance payment and a weekly or fortnightly payment for expenses, the whole family are considered part of the agreement. Women and children therefore work long hours in the kilns against the loan or advance, but are not recognised as workers in their own right and do not receive any payment directly. The remuneration for most activities

in a brick kiln is on a piece rate basis (paid per brick). Brick kiln workers do not receive a regular wage, since their earnings service the debt. Instead, they receive a weekly or fortnightly payment for food and other necessities which is added to their debt. At the end of the brick making season, their earnings are calculated and adjusted against the amount of advance taken and total received for expenses. Workers usually have no idea until the end of the season how much they are entitled to receive, or if they still owe the brick kiln owner. Although required under the law, there is often no employment records maintained and there is no transparent and verifiable process of wage determination and wage settlement against advances. If the advance payment is not considered by the employer to have been cleared, the worker will be tied to return to the same brick kiln the following season. As they often take new loans to clear past debts, many workers remain in perpetual bondage.

### Review of Literature

It is relevant literature relating to the brick kiln workers socio-economic, living, working conditions health and safety provisions at the centres were discussed. The research literature was reviewed from the primary sources collected from both National and International sources. The reviews were presented below.

K. Narindar Jetli (2011) <sup>[3]</sup> in the book 'India: Manpower, Employment Policy and Labour Welfare 1947 to 2011' mentioned that construction is one of the most labour intensive sector. Also, there existed large unmet demand for housing in both rural and urban areas. According to the National Building Organisation, the urban housing shortage was at 8.23 million units in 1991. Similarly in rural areas too there were such shortages. A boost to this sector was necessary to meet the housing demand, which constituted one of the basic necessities

Vikrant *et al.* (2016) <sup>[4]</sup> have depicted that brick making is one of the oldest enterprises. They discuss the wellbeing status of brick kiln workers and review working conditions and security measures at the brick kilns. The workers in the brick business are exposed to outrageous working conditions and helpless compensation. Presently in India, brick manufacturing is a labour-intensive sector work, with crude procedures that require a lot of hard work of the workers. The study revealed that 70 percent of workers were receiving less than 150 rupees per day (i.e. 2.02 US dollars), which is lower than the minimum wages foreseen in the 1948 Minimum wages act.

Sourav Halder and Uttam Kumar Patra (2021) <sup>[14]</sup> has studied on status of brick kiln workers in South -East Asia. The study revealed that Brick kiln sector is one of the oldest unorganized labour-intensive informal sectors in South-East Asia, China, India, Pakistan, Vietnam, Bangladesh, Nepal are the major bricks producing country in the South-East Asia. Rapid rate of urbanization in south-east Asia is one of the important reasons of increasing bricks production.

Nilutpal Narayan Konwar (2022) <sup>[1]</sup> studied on 'Socio-Economic Conditions of the Brick-Making Industry Workers - A Case Study on Darrang District of Assam'. Brick-making industry, a kind of labour-intensive industry; is providing a significant contribution towards the employment generation and national income of the country. Year after year, the industry is employing large numbers of

both migrant and non-migrant workers; including men, women and even children. However, the nature of their employment contract is temporary and they have to work in an unhealthy environment with low wages. They are exploited and deprived.

Reddy *et al.*, (2023) [8] assessed how seasonal employment in brick kilns impacts the economic stability of workers in Andhra Pradesh. The study found that seasonal work leads to income volatility, making it difficult for workers to save or invest in their children's education or healthcare. The workers' lack of consistent income further perpetuates poverty. There is insufficient research on long-term strategies to stabilize the income of seasonal workers and the role of digital finance or microloans in mitigating their economic vulnerability.

Gupta *et al.*, (2024) [5] assessed the impact of government regulations, including labour laws and safety standards, on the economic well-being of brick kiln workers. The study found that while regulations exist, their enforcement is weak, leading to substandard wages and unsafe working conditions for workers. There is a need for more focused research on the effectiveness of labour law enforcement mechanisms in informal sectors like brick kilns.

### Need and significance of the present study

The study of "Educational status of brick-making worker" is very much important to understand their present status and to assess their problems. Workers of the brick-making industry constitute one of the weakest and poorest sections of the rural society. The workers are generally recruited through contractors or labour agents of the kiln owner, because of most of the labours are illiterates. The recruitment is temporary and usually accompanied by payment of advances to the workers for a specified time period. Since the kilns operate in the backward areas, they mostly remain unregulated and even statutory minimum wages are not paid to the workers. The number of wages paid also varies from worker to worker depending upon their nature of work. Moreover, the labour agents or contractors get commissions through an informal deduction from the wages of workers. From pilot survey, it comes to know that, the workers of the brick making industry are facing various problems, such as; absence of unions or legislation for their protection, absence of proper educational, drinking water and sanitation facilities etc. They are still living in poverty with poor access to health care. That's why their social-economic condition is a matter of concern. There is a need to improve the working environment of the workers in order to motivate them. Moreover, statutory benefits should be provided to them for their welfare. It is hoped that, the present research study will be helpful to the industrialists, planners, policy makers and researcher for uplifting the socio-economic conditions of the workers, which in turn, may establish pleasant industrial relations.

### Objectives of the study

The specific objectives of the study are:

1. To examine the educational status of brick kiln workers in Andhra Pradesh
2. To assess the migrant brick kiln workers from other states to Andhra Pradesh

3. To develop a frame work on skill-based education with response to their socio-cultural setup
4. To provide apt possible solutions to uplift the Brick Kiln worker's livelihood at the National level.

### Materials and Methods

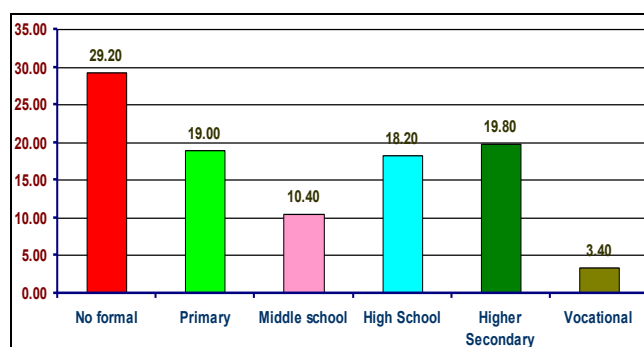
This study is a mixed mode method of research. Descriptive survey was the method used for conducting the study. The researcher selected Srikakulam and Vizianagaram districts of Andhra Pradesh as study area. In the Srikakulam and Vizianagaram district of Andhra Pradesh 40 brick kiln factories are located. The researcher selected 500 workers for collection of data. A self-made Interview schedule was developed for collection of data.

### Findings and Discussion

**Table 1:** Distribution of brick kiln workers by their Education Level

| Education Level  | Frequency | Percent |
|------------------|-----------|---------|
| No formal        | 146       | 29.20   |
| Primary          | 95        | 19.00   |
| Middle school    | 52        | 10.40   |
| High School      | 91        | 18.20   |
| Higher Secondary | 99        | 19.80   |
| Vocational       | 17        | 3.40    |
| Total            | 500       | 100.00  |

The table shows that out of 500 brick kiln workers, 29.20% of the workers are No formal education, whereas 19.00% workers are completed primary education, 10.40% are studied middle school education, 18.20% are having high school education, 19.80% are completed higher education and the remaining 3.40% are studied Vocational education. We conclude that majority of the workers are No formal education.



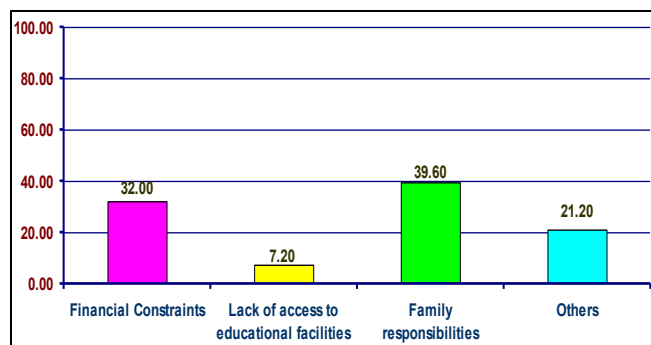
**Fig 1:** Distribution of brick kiln workers by their Education Level

**Table 2:** Main reason for not Attending school or any educational institution

| Response                                 | Frequency | Percent |
|--|-----------|---------|
| Financial Constraints                    | 160       | 32.00   |
| Lack of access to educational facilities | 36        | 7.20    |
| Family responsibilities                  | 198       | 39.60   |
| Others                                   | 106       | 21.20   |
| Total                                    | 500       | 100.00  |

Table shows that out of 500 brick kiln workers, 32.00% of the workers are not enrolled in educational institutes due to financial constraints, whereas 7.20% are lack of access to

educational facilities, 39.60% are not enrolled due to family responsibilities and the remaining are not enrolled due to other reasons. We infer that majority of the workers are not enrolled in any educational Institutions due to family responsibilities. Financial constraints were the dominant factor among workers.

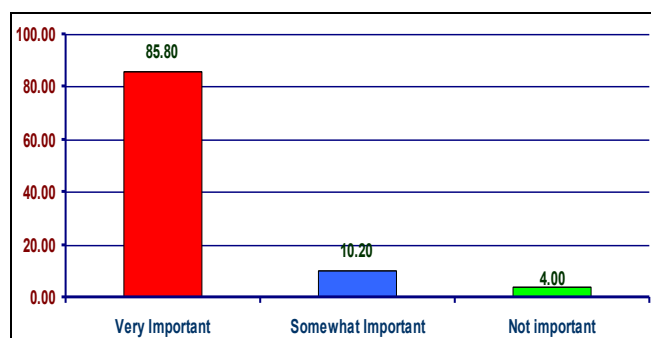


**Fig 2:** Main reason for not Attnding school or any educational institution

**Table 3:** Perceptions About the importance of education?

| Response           | Frequency | Percent |
|--------------------|-----------|---------|
| Very Important     | 429       | 85.80   |
| Somewhat Important | 51        | 10.20   |
| Not important      | 20        | 4.00    |
| Total              | 500       | 100.00  |

From the above table, it was observed that out of 500 brick kiln workers, 85.80% of the workers perceived that education is very important, whereas 10.20% workers perceived that, education is somewhat important and the remaining 4.00% are perceived that, education is not important. We infer that majority of the workers perceived that education is an important factor.



**Fig 3:** Perceptions About the importance of education?

### Findings Explanation

1. Out of 500 brick kiln workers, 29.20% of the workers are No formal education, whereas 19.00% workers are completed primary education, 10.40% are studied middle school education, 18.20% are having high school education, 19.80% are completed higher education and the remaining 3.40% are studied Vocational education. We conclude that majority of the workers are No formal education.
2. Out of 500 brick kiln workers, 14.20% of the workers are enrolled in educational institutes while remaining 85.80% are not enrolled in any educational Institutions.

We infer that majority of the workers are not enrolled in any educational Institutions.

3. Out of 500 brick kiln workers, 32.00% of the workers are not enrolled in educational institutes due to financial constraints, whereas 7.20% are lack of access to educational facilities, 39.60% are not enrolled due to family responsibilities and the remaining are not enrolled due to other reasons. We infer that majority of the workers are not enrolled in any educational Institutions due to family responsibilities. Financial constraints were the dominant factor among workers.
4. Out of 500 brick kiln workers, 57.60% of the workers are drop out at school level, whereas the remaining 42.40% are not drop out of school at any point. We infer that majority of the workers are drop out of school.
5. Out of 500 brick kiln workers, 57.60% of the workers are drop out at school level, whereas the remaining 42.40% are not drop out of school at any point. We infer that majority of the workers are drop out of school.
6. Out of 500 brick kiln workers, 35.80% of the workers are dropout at Primary stage, whereas 32.60% are dropout at Middle school stage, 25.80% are dropout at High School stage and the remaining 5.80% are dropout at Higher education stage. We infer that majority of the workers are dropout at Primary Stage.
7. Out of 500 brick kiln workers, 89.80% of the workers had worked instead of attending school whereas remaining 10.20% are not engaged with and work. We infer that majority of the workers had worked instead of attending school.
8. Out of 500 brick kiln workers, 17.00% of the workers are start work at below 10 years age, whereas 49.60% are start at 10-14 years age, 25.80% are start at 15-18 years age and the remaining 7.60% are start at above 18 years age. We infer that majority of the workers started work at 10-14 years age.
9. Out of 500 brick kiln workers, 85.80% of the workers perceived that education is very important, whereas 10.20% workers perceived that, education is somewhat important and the remaining 4.00% are perceived that, education is not important. We infer that majority of the workers perceived that education is an important factor.
10. Out of 500 brick kiln workers, 38.00% of the workers are very satisfied with their level of education whereas, 31.40% of the workers were satisfied with a level of education. Out of 500 workers, 21.0% (105) dissatisfied and 2.80% of the workers are very much dissatisfied. From the study, we can understand that 69.40% (247) workers are satisfied with their levels.
11. Out of 500 brick kiln workers, 74.40% of the workers are faced barriers to accessing education whereas remaining 25.60% are not are faced barriers to accessing education. We infer that majority of the workers are faced barriers to accessing education.
12. Out of 500 workers, 4.40% of the workers are faced barriers to accessing education due to distance from school, whereas 29.40% are financial constraints, 2.20% are discrimination, 0.80% are lack of resources, 42.00% are family responsibilities and 21.20% are other problems. From the study, we can infer that the main barriers were the financial constraints, and the family responsibilities.



13. Out of 500 workers, 30.80% of the workers expressed that, their family members are very supportive towards their education, whereas 13.20% are supportive, 39.00% are less supportive, and 17.00% are not supportive. It was noticed that their family members are less supportive towards the education of workers. The reasons are mainly the financial constraints and the family responsibilities.
14. Out of 500 brick kiln workers, 40.60% of the workers expressed that, they know about the educational programmes conducted by their community whereas 59.40% are expressed that, they did not know the educational programmes conducted by their community. Majority of the workers did not notice any of the educational programmes conducted by their community due to lack of literacy and awareness.
15. Out of 500 workers, 22.80% of the workers expressed that, very positive impact of education on improving the quality of life, whereas 59.40% workers had a voice on the positive impact of education on improving the quality of life, 5.80% are neutral and 12.00% are negative impact of education on improving the quality of life. Majority of the workers had have positive view in their perceptions on the impact of education in improving their quality life.
16. Out of 500 workers, 61.40% of the workers expressed that, they thought scholarships should be made available to brick kiln workers like themselves, whereas 11.20% Adult education programs should be made available to brick kiln workers, 17.20% are Vocational training should be made available to brick kiln workers and 10.20% are other opportunities should be made available to brick kiln workers. We infer that majority of the workers expressed that, scholarships should be made available to brick kiln workers.
17. Out of 500 workers, 7.60% of the workers expressed that, overall educational Infrastructure and facilities available to brick kiln Workers in work place was excellent, whereas 16.80% revealed that educational Infrastructure and facilities available to brick kiln Workers in their area was good, 22.60% expressed their view that the educational Infrastructure and facilities available to brick kiln Workers in their work area was average, 39.40% are overall educational Infrastructure and facilities available to brick kiln Workers in their area was poor and 13.60% are overall educational Infrastructure and facilities available to brick kiln Workers in their area was very poor. We infer that, more than fifty percent of the workers revealed that, overall educational Infrastructure and facilities available to brick kiln Workers in the work area was poor. Hence it is suggested that, the education facilities are to be provided at the workplace for the enhancement of their skills and education.
18. Out of 500 brick kiln workers, 25.40% of the workers are expressed that, the owner of Brick field provides education allowance for the children of the workers whereas 74.60% of workers expressed that, the owner of Brick field not provides education allowance for the children of the workers. The owner of Brick field not provides education allowance for the children of the

workers. The workers are not satisfied with the provision of educational allowances to their children by the management. Hence it is suggested that managers of the owners of the brick field should extend the educational facility to the children of the workers.

19. Out of 500 brick kiln workers, 60.20% of the workers are expressed that, the State Government has instructed the owner of the brickfield to provide Education to the children of workers whereas 39.80% of workers expressed that, the State Government has not instructed the owner of the brickfield to provide Education to the children of workers. From the study it was found that the government instructed the owners of the brick field for the provision of education facilities to the children of the workers.

### Conclusion

Educational status of workers, majority of the workers are No formal education, majority of the workers are not enrolled in any educational Institutions due to family responsibilities. Financial constraints were the dominant factor among workers. Major finding was noticed that, majority of the workers are drop out of school. majority of the workers are drop out of school, mainly of primary states. Majority of the workers had worked instead of attending school and started work at 10-14 years age. The workers perceived that education is an important factor. It was found that, 69.40% workers are satisfied with their education levels. It was also noticed that, majority of the workers are faced barriers to accessing education, mainly were the financial constraints, and the family responsibilities. their family members were less supportive. Regarding the educational programmes, majority of the workers did not notice any of the educational programmes conducted by their community due to lack of literacy and awareness. Majority of the workers also noticed that the education was an important factor for the improvement of their quality of life. We infer that majority of the workers expressed that, scholarships should be made available to brick kiln workers. More than fifty percent of the workers revealed that, overall educational Infrastructure and facilities available to brick kiln workers in the work area was poor. Hence it is suggested that, the education facilities are to be provided at the workplace for the enhancement of their skills and education and also made available scholarships. It was also found that, the owner of Brick field not provides education allowance for the children of the workers. The workers are not satisfied with the provision of educational allowances to their children by the management. Hence it is suggested that managers of the owners of the brick field should extend the educational facility to the children of the workers. From the study it was found that the government should instruct the owners of the brick field for the provision of educational facilities to the children of the workers for the enhancement of their quality of life.

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