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School of Development Studies
Dr. B. R. Ambedkar University Delhi

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Lived Realities of Stone Carving Workers in Rajasthan: Health Hazard of Silicosis

Abstract

This paper highlights the lived realities of stone-carving industry in Rajasthan, which is predominantly built on labour of migrant Adivasi workers, who are increasingly falling prey to the health hazard of Silicosis, a deadly long-term lung disease. The modalities of this work blatantly revoke the workers' right to life and entail complex issues that calls for consideration. In this background, the article deals with the legal aspect of the stone-carving work arguing why there is a need to include stone-carving industry in the list of industries involving hazardous processes which would give workers a legal right to protection.

Pindwara as a city of Sirohi, southern part of Rajasthan is famous for its stone carving industry. Majority of workers migrated to Pindwara from Udaipur, for work. While going from one house to another in Debla region of Kotra, Udaipur, a disconcerting reality of villager's lives came forward - almost every third household had seen a death of a male member because of silicosis, after working in the stone carving industry. The youngest worker who was suffering from silicosis was that of 21 years of age. This article explores the modality of this work which blatantly revokes the workers' Right to Life and entails complex issues that call for consideration.

This research is based on primary data collected using mixed methods during October 2021-May, 2022. This includes a large primary household survey of about 1000 households for collecting quantifiable data at household and individual level. Beside this survey, qualitative data is also collected through interviews and focus group discussions.The districts which are located towards south and south-eastern parts have tribal population concentration. A sample of size of around 1000 households was covered in the survey spread equally across 40 villages, 8 blocks and 4 districts in Rajasthan state

Five villages from each block were selected ensuring randomness of the villages and representation of maximum number of ST groups residing in the block. While selecting villages, accessibility, convenience of the team of field investigators, diverse direction, variation of major destination of migrant streams and occupation were also taken into note.

Qualitative primary data was also collected for this study to cover aspects that cannot be captured through household survey and also for triangulation of data and inferences. Women and men's aspirations related to education, employment and lifestyles, challenges faced, gendered and emerging constructions around women's education and employment, the success stories and role models, and so on has been the focus of this qualitative component of data collection. Two methods have been employed for gathering such data. One, in-depth interviews of individuals and two, focus group discussions.

A collection of ten case studies were also carried out. Through open-ended in-depth interviews case studies were developed that depicted employment and migration trajectories of youth and adults with rich details on their aspirations, struggles and achievements. One major limitation of studies on migration has been borne from their field study focus either at the site of origin or destination. Such focus inadequately links the dynamics involved in migration process and the exact nature of skills and jobs that migrants engage in and the issues in the destination site.

Though the major field focus has been on the place of origin i.e. tribal areas, the field work was also extended to the towns and cities and other worksites such as construction work, stone carving industry, agricultural work etc. wherever feasible. Using the rapport built in the villages during fieldwork, both male and female migrants were contacted and traced at the place of destination. The case studies of individuals mentioned above have been carried out both at the place of origin and destinations. Including the destination sites of case study individuals we have covered 5 destination sites. The destination sites have been chosen as per the occupation streams, because the 'microstudies have shown that migration streams from specific regions are linked with specific occupation' (Desai and Sanghvi, 2018). The study includes the in-depth interview at the destination site of Pindwara covering stone carving workers amongst others.

1. Understanding the Region through Migration

46% of tribal migrants engage in circular and short-term seasonal migration, primarily for up to three months. Male migration dominates, but 23% of migrants are women, and 10% of migrants are children under 14, severely impacting their education. The major occupation for which people had migrated were that of casual labour (40 percent), waiter (5 percent), cook (10 percent), heavy loader (13 percent), domestic worker (8 percent), driver (4 percent) and agricultural labour (8 percent). Majority of cooks were from Udaipur, stone carvers from Sirohi, waiters from Dungarpur, heavy loader from Banswara; driver from Dungarpur, domestic worker from Dungarpur, and agricultural labour from Udaipur and Sirohi.

There has been a noticeable decrease in the outmigration of workers to work as stone carvers from Sirohi. This can be traced from the details of the three most recent movements, where the percentage of workers working as stone carvers had declined from 3rd to 1st (most recent movement, from 54 percent to 51 percent to 31 percent respectively. This reduction was pursued at the expense of workers moving from stone carving industries to agricultural labour or casual labour in any other construction and trade, hotel and restaurants sector. This decrease can also be accounted to increasing awareness amongst workers about the respiratory illness caused 'Silicosis' contracted from working in the stone carving industry. The increasing mobilisation from the local grassroot organisations have helped workers to gain knowledge about these occupational hazards. This mobilisation has gained momentum in last three to four years, however, the news coverage and meetings with government stakeholders to address the issue in last few months, had further enabled the local organisations to mobilise these workers.

2. Why stone-carving industry in Rajasthan should be identified as hazardous?

An in-depth inquiry into the lives of workers who worked in stone-carving industry leads to villages inhabited by primarily tribal population, in Udaipur, from where workers migrated to Pindwara in Sirohi, for work. While going from one house to another in Debla region of Kotra, Udaipur, a disconcerting reality of villager's lives came forward - almost every third household had seen a death of a male member because of silicosis, after working in the stone-carving industry. The modalities of this work blatantly revokes the workers' Right to Life and entails complex issues that call for consideration. A story of Rajaram Garasia, is only one example:

> Rajaram Garasia (age 30) from Ghata village in Debla, Udaipur, had left work before COVID when he was diagnosed of silicosis at a government hospital in Udaipur district of Rajasthan. He worked at Sompura Marble Factory in Pindwara, Sirohi as a *Pathar Gadhai Majdoor* (Stone-carving Labourer). His work was to carve intricate design on the stones which were mostly used in construction of temples all across the country and at times were also used for aesthetic purposes in buildings and homes. He estimated that he may have been 12-13 years of age when he first went with his father to work in a factory in Pindwara, after finishing education till 5th class. His grandfather used to practice agriculture, but his father inherited too small land size holding to depend on cultivation, besides shortage of water in his village being also a hindrance for practicing agriculture. His father, for most part of his life had worked on stones using his hands and had started working with machines at a later stage in his work life and therefore did not get sick from silicosis at a young age unlike his son. Rajaramji started with the earnings of Rs 60-70 per day. In initial 1-2 years he worked with his hands, but afterwards the labour contractor had asked him to work with the machinery popularly known as 'Grinder'. He had worked in Pindwara as *Pathar Gadhai Majdoor* for about

> 15 years of his life. He worked for ten hours per day. While Rajaramji left his work, he was earning 450-500 per day. On an average he would earn Rs. 8000 per month. When he started feeling sick, he went to Pindwara to a local doctor who gave him medicine for 2 months, after which he went to Gujarat to a private doctor who gave him medicine for another 2 months, he was finally diagnosed with silicosis, in a government hospital in Udaipur. He had applied at the portal of Silicosis Grant Disbursement (GoR), in August (two months ago), for an appointment to get tested for silicosis. After appointment, he would get tested, and his approval for grant may take 8-10 months. After his illness, his wife and mother took work under MGNREGA, where she earns Rs 1800-1900 for 20 days on an average. There is no water for wheat cultivation and in Kharif season he grows mecca which the household uses for their own consumption. They get 5kg of wheat per person per month through their BPL ration card. He said, if nothing works out he may have to send his wife to Pindwara for working in factories for Polishing, where women workers get Rs 200 per day, while commuting by shared jeep costs Rs. 60 for back-and-forth trip.

While the stone industry in Rajasthan is a huge source of revenue for the state, it is the activities of mining and quarrying which are known for its association with life threatening lung diseases. Our discussion with the workers and the member of union unfolded that the processing of stone comprises three steps: stone cutting, stone-carving and stone polishing. The stone cutting in large blocks entails cutting at straight angles using machinery and therefore the dust is easier to handle with protective gears as compared to the process of stone-carving which uses angle grinder to give angular designs to the stones. The introduction of locally made machines in the process of stone-carving became prominent after 2000s, however in and after 2005, almost every other firm started using Chinese machinery because of lower costs associated with the latter. A discussion with the researchers and activists working at Worker's Rights Centre in Pindwara revealed that Dr. P.K Sisodia, who works as an Advisor for Occupational Health, Building and Other Construction Workers (BOCW) Welfare Board, Government of Rajasthan, had observed that workers in stone-carving industries are prone to contract silicosis and other fatal lung diseases at a younger age as compared to workers who work in mines. Yet the stone-carving for constructing aesthetic temples has somehow failed to be associated with the hazardous occupations and hazardous industry. The Occupational Safety, Health and Working Conditions Code, 2020 (OSHWCC) defines 'hazardous process' in the section 2 (za)-

> "…. as raw materials used therein or the intermediate or finished products, bye-products, hazardous substances, wastes or effluents thereof or spraying of any pesticides, insecticides or chemicals used therein, as the case may be, would— (i) cause material impairment to the health of the persons engaged in or connected therewith, or (ii) result in the pollution of the general environment."

Yet the First Schedule of OSHWCC only includes stone crushing industry in the list of industries involving hazardous processes.

With the usage of machinery, comes the consequential dust which is in form of particulate matter besides being silica rich which compromises normal functioning of lungs and is life threatening. While the activities of mining, quarrying, construction, ordnance and slate pencil industries are appropriately linked with silicosis, there is no mention of the stone-carving industry. The perilousness of stone-carving industry was lesser known until *Pathar Gadhai Majdoor Suraksha Sangh* brought it to light and have started mobilising workers to demand dignified work and fight for safety at workplace. Estimated by Workers' Rights Centre using death records of the area, the crude death rate of working-age men in Pindwara Block is over four times the state average (Jain and Sahoo, 2019). The associations like Workers Rights Centre (WoRC) and *Majdoor Sangh* are striving to develop safety solutions in the work of stone-carving. In a discussion with Jitibesh Sahoo, a researcher associated with WoRC, it came forward the challenge is to get all the units in stone-carving industry under some legal regulatory framework which assures safety at workplaces and reduces the health hazards linked with stone-carving. The protective gear such as masks, shield are not enough to prevent workers from inhaling the particulate matter, therefore a comprehensive and elaborate action oriented research is required for developing the concerns measures. Industries and government shall take responsibility for the same.

3. Ensuring 'safe-work'

While the Government of Rajasthan is aware of the problem and has formed a Silicosis Grant Disbursement Portal which enables workers to claim a relief/compensation amount of ₹ 5 lakhs in phases, it does not seem to be enough looking at the gravitas of the problem. The workers revealed that there have been many cases in their villages, where workers after registering at the portal have deceased while waiting for their appointment, confirmation, certification and disbursement of the grant. The responsibility of running from post to pillars to avail the relief amount and proving his suffering/disease is entirely on the workers, while the industrialists are nowhere to be held accountable. Therefore, there is a need to pool in resources for research and development to develop a technology which would ensure safe work for the stone carvers. A public private partnership (PPP) between the industries and the government shall spear the invention in that direction, unless the industry of stone-carving takes a retrogressive step and dismisses usage of machineries and promotes the workers as dignified 'artists' which seems

surreal in the existing copacetic capitalist scheme of stone-cluster industry. The OSHWCC should identify the stone-carving industry as hazardous industry. This should endeavour to bring in most micro and small scale firms working as informal units under regulations to protect workers from the occupational hazards of the work and provide them with basic minimum social security benefits related to life, death, disability, old age and maternity benefits. While a lot can be said about the lived realities of stone-carving workers, changes can only be enforced when these realities are first recognised and validated by the state.

4. Conclusion

While circular migration is a complex phenomenon and it is difficult to ensconce a factor that drives migration and who migrates, there is more or less a pattern seen and understood from this study that migration has become an important livelihood strategy amongst the studied tribal group which faces some distinct problems of land fragmentation, reduced and restricted accessibility to the natural resources for their livelihoods amidst penetration of capitalist forces into the tribal areas which altogether pushes them into chronic poverty and makes circular migration a livelihood strategy. While choosing this strategy the tribal migrants is mostly stuck in exploitative labour arrangements with little or no rights at the workplace, as shown with the help of the above occupation stream in the studied region. This finding lay out a scope for possibility of government intervention in the tribal areas, particularly working in stone carving industry.

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