

## REPORT FROM FIELD

**Are sandstone miners abused in India?**

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Despite engaged in economic activities, the situation of sandstone miners is very poor in India. They are abused in many ways like in socioeconomic status, in Physical health, by doctors, by *thekedars* (contractor), by dacoits and by the administration. This report is compiled on the basis of author Ph.D. field work scheduled in May to September 2014 in 10 sampled villages in Karauli, Rajasthan and collected information from more than 300 mine workers and two in-depth interviews from local newspaper journalists.

Karauli is a district of Rajasthan in western India, located at 26.5°N 77.02°E and encompasses an area of 5530 sq km. Located at a distance of 190 km from pink city Jaipur; the maximum temperature here reaches 47°C in summers and minimum drops to about 4°C in winters! The area is mainly famous for pink colored construction stone used for carving and other decorative materials. The livelihood of the rural population of this district is mainly agriculture, animal husbandry, and mining; with about one-third population dependent on mining for their livelihood. The sandstone famously called Karauli stone is mined here, mostly as an unorganized way. Despite engaged in economic activities and mentioned in the census under Industrial category (Mining and quarrying), the situation of these miners is very poor. They are abused in many ways like in socioeconomic status, in Physical health, by doctors, by *thekedars* (contractor), by dacoits and by the administration.

**How miners are abused by socioeconomic status?**

Most of the miners belong to *Jattaw* or *Koli* (both are Scheduled caste or *Dalits*) (1), and few of them are *Mali* (Other Backward Class). According to the

hierarchical caste system, in Indian society *Dalits* were pushed to the lowest level, down the centuries with the denial of the right to education, property, development and participation. Bhojpur village in Karauli sees the same. Earlier 40-50 Jattaw family were living in the village, and now only seven households are remaining. All of the families left for another place either because of exploitation by other communities or because their property belonging to them was captured or forced to sold at negligible rates.

Average household size of miners is 5-6 members (2). An averagely family composition of miner is self, his wife, 2 or 3 children, mother, and father if alive then bedridden because of disease (3). Either they are illiterate or have little education (2). Because of the early start of mining activities, miner's children do not get proper schooling. Miners are living in the houses made up of stone that has no door, contain 3-4 *khats* (Cot) according to household size, one large trunk, and few kitchen utensils. One corner of the house has a mud made *chullah* and food cooked with woods is collected from nearby *dang* (Jungle). Meal for them is either wheat roti or *bajra* (pearl millet) *roti* (during the winter season) with Dal, *Mirch* (Chilli) or *acchar* (pickle). Miners, who have not sold the land being in debt, are lucky to have grains from their land and do cultivation during the rainy season. Miners are always in debt for medical expenses, daily consumption or marriage.

**How miners are abused in Physical health?**

Stone crushing operation creates a large amount of dust which contains silica ranges 20-70 % (4). Notably, Sandstone contain 67 % of silica (5) which

develops respiratory disease like silicosis and tuberculosis which directly related to the degree of exposure to silica dust(4)(5)(6)(7)(8). Apart from lung diseases miners have the risk of musculoskeletal disorder, accident, malaria, low vision, skin disease and hearing losses. Those, who stay at the mine site for long hours also, have risk from mosquitoes, snakes bites, and wild animals.

The mining process starts with removing of topsoil and sub-soil by excavators (JCB Machine that is rented) earlier it was done manually. Under the topsoil usually there is hard, thick-bedded sandstone in which holes are drilled by jackhammer and subsequent blast that breaks up the sandstone. The beds of sandstone are split by driving holes using chisels and hammers along bedding planes at an interval of 5-7cm. The beds are split along bedding planes once the chisels penetrate 5-7cm followed by their resizing into different sizes, as per the market demand. Slab sizes in Karauli are of size 3X2 feet (called as *farshi*) done by mainly 2-3 people and 10X2 feet (called as *chidi*) done by mainly 8-10 persons. The thickness of these slabs varies from 5-10 cm. Loading and unloading of *chidi* done by different workers. Because of huge weight it needs muscle power to lift and to load into vehicles that sometimes stand at 30 to 50 meters far from the mine site.

They start working from an age as early as ten as a helping hand to father or elder brother for as long as 8-12 hours. No safety equipment (helmet, safety jackets, masks etc.) is provided to workers by the contractors. Even miners themselves don't use any clothes to cover nose from dust during work because they do not feel comfortable or perceived it doesn't work. Dust of sandstone that contains silica leads to silicosis that is a non-curable disease. A miner knows that the dust is harmful to them and lead to diseases like TB and *Sans ki bimari*; few of them also know silicosis, caused by inhalation of dust. To act as a preventive measure, they either drink alcohol or eat *gud* (jaggery). It is commonly perceived that it cleans the inhaled dust via excreta. About 80 % of miners are addicted to substance abuse (9); those started it to release tiredness caused due to work.

Working in mines in an awkward position, repetitive work or handling heavy stones are the risk factors, leading to musculoskeletal disorder as well as accident. During my field visit, one accident had occurred but got unreported because mining were done illegally. One hit from 10 Kg hammer needs a

lot of energies and a massive breath. Because of improper food and addiction of substance abuse, their bodies become skinny. During the summer season, it's very difficult to cover body during work at 47°C temperature. Thus sunlight and continuous sweating affect their skin. There is no water facility available at the mine site, either they have to carry it from home if nearby. If he is staying at the mine site 40-50 KM away from the village, then they drink water stored during the rainy season by filter with thin cloth called as *gamcha*.

### How miners are abused by doctors?

Mining occupation is an invitation to a Doctor; this is well known to doctors of Karauli. Miners even go to Gwalior, Sawai Madhopur, Ganagapur and Jaipur for treatment. After 15 years of work, miners are getting symptoms of silicosis like regular cold and cough, chest pain and shortness of breath. Mostly government doctors treat them for TB and give doses of DOTS (3). Private doctors give dose for 10-15 days and charge for one visit with tests, registration fee which is about Rs 1500 to 2000 (\$ 25 to \$30). At home, doctors charge Rs 100 (\$1.6) for the consultation fee and suggest tests to be done at particular shops. After that, the medicine should also to be from the recommended shop. Otherwise, he does not attend them from next time. Most of the time X-ray is not working in the public hospital, and people get X-ray done in private shops that are spread like mildew in nearby to hospitals. We could even find X-ray and Xerox both being done in the same shop. Miners complain about the poor behavior of staff in government hospitals! So they prefer to visit private clinics. Another reason to visit private clinics is government hospital medicines are not efficient and not available most of the time at government dispensary that distribute it freely. Miners also report that doctors in government hospital call miners at their private clinic; those of whom go to the government hospital for a checkup. Likewise, doctors were treating them for TB and making money out of poor miners. This treatment lasts till as much miner can get/lend money or he died. In the end, they died in heavy debt, and that debt carries forward to the son. Mostly money lenders were thekedar, so their son has to work forcedly in the mine to repay the debt.

**How miners are abused by *thekedar*?**

Miners borrow money from *thekedar* in the range of Rs.20, 000 or higher as per their physical strength in the month of July. As miners complete the work equal to the amount of borrowed money, then he will be eligible to borrow next installment of money. In mining, wages is given as per piece (10), hence if miners are young, then he can work to earn up to Rs 30 to 40 thousand annually. If he is not able to work equal to the borrowed money, then he will continue to work for next year otherwise he has to pay 24 % interest rate annually (in their language *do rupaye saynkda* per month) on remaining money. There are no daily register maintained by the contractor. Consequently, the miner has no proof that he is employed by such contractor, hence in case of any adverse event, that miner can't claim for compensation as he has no proof of employment.

**How miners are abused by Dacoits?**

Once in a year's dacoit in a group lashed with arms come to mine site and ask for ransom. Workers not allow to work till they receive money from *thekedar*. Despite of dacoit intimidation they start work, as they earn on the daily basis. If they not work they will not get money. Accidentally if dacoit come and found working they beat them and even hit chisel into their palm. Many miners stayed at the mine site and carry grains like wheat flour and dal for a month. Many times dacoit asked them to cook food for them and take mobiles and whatever valuables they find them.

**How miners are abused by Administration?**

Many Forest officers are involved in illegal mining in the forest area. Every month they get fixed amount. Sometimes if the senior officer comes for a visit, then forest officer-in-charge of that area are informed in advance. In case forest, officer reaches at the mine site, they arrest mine workers and not *thekedar* who is involved in that illegal mining.

**Discussion**

Rajasthan has largest number of mine leases in the country and failed to regulate illegal mining. The illegal mines have no mechanism in place to implement mine labour laws. Because of this, these mines operate beyond the law and workers' rights are not recognized (11). The miners in these mines work barefoot, with their bare hands, without safety gear such as boots and helmets in open cast mines, under 45 to 47°C. Health benefits like Provident Fund and gratuity benefits are ignored in these mines run by contractors. Injuries are common due

to unscientific methods adopted by the mine owners and contractors and if it happened miners do not get medical compensation for injuries sustained at work. On the contrary, workers are deprived of wages if they are unable to report for work due to sickness and injury. The high rate of injury forces the workers to borrow from the mine owners or contractors, forcing them into a debt trap as what they earn are barely enough to sustain them. Their status robs them of their freedom they are not even allowed to move and work elsewhere until they can pay back their debts (12).

Working without safety, miners get silicosis caused by inhaling silica dust. There are thousands of mines in 19 districts of Rajasthan, which employ two million workers. Roughly 10-12 lakh of them are suffering from various stages of silicosis and associated tuberculosis and other respiratory tract infections (13). In Karauli district, The National Institute of Miners' Health (Nagpur, India), examined radiological records of 93 stone mineworkers among that 73 (78.5%) of the workers showed evidence for having the advanced stages of silicosis and progressive massive fibrosis(4). In February, 2014, the same institute published data related to a different set of 298 workers from the same region, nearly half [149] of whom had evidence of silicosis (14).

The Rajasthan Environment and Health Administration Board has decided the exgratia payment of Rs. 1.00 lakh for silicosis affected person and Rs.3.00 lakhs for a family of the person died of silicosis to be paid from Rajasthan Environment and Health Administrative Board (REHAB) that collects a mining cess (14). Till now 222 miners identified by National Institute of Miners Health from Karauli are entitled to exgratia payment. But this help is like a drop in the ocean. Though Karauli district health officer avowed, there is about 10,000 miners may be suffering from silicosis.

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## Figures

FIGURE 1 STUDY AREA

