

Degradation of the Agricultural Lands and Displacement of the Habitants Due to Mining in Eastern India

Abstract

Mining & industrialization play an important role in the national economy. The first and foremost consequence of any mining operation including the coal mining is the removal of vegetation and the degradation of land. Due to mining processes, there are changes in natural environment. Large areas of forest, agriculture & pasturelands have been converted into collieries, colonies & fallow lands due to rapid expansion of mines. The loss of agriculture land & displacement of the tribal people bring about a drastic change on demography & life style. This paper explores the present situation of the extent of land degradation and displacement caused by mining of coal mining in West Bengal and Jharkhand and discusses various practices that can be adopted to control them. It is suggested that the land reclamation should be a continuous process and should be carried out in a scientific manner. Tribal people are being alienated from their land and forest due to the ongoing deforestation, industrial growth and mining activities. The natural resources are being exploited in a way, which leads to a process of gradual displacement and denying the basic right of livelihood to the tribal. This paper is going to present the effects of the mining activities on the agricultural land and as well as the livelihood of the tribal people resided in West Bengal and Jharkhand. The main focus of this paper is to analyze the socio economic conditions of the mining induced displaced people and how the resettlement effect refers to restoring the income, livelihood and the social system of the displaced people.

Keywords: Mining, Displacement, Degradation, Land, Resettlement.

Introduction

India has a rich heritage of mining and metallurgy dating back to 4000 B.C. The country has a well-developed mining sector which has vast geological potential with over 20,000 known mineral deposits. The growth of the Indian mining industry is the most important aspect of the history of the industrial expansion of this country. The coal fields of Jharkhand and West Bengal have attracted different streams of labour since the colonial time periods. With the announcement of India's new National Mineral Policy, in 1993, the mining sector was thrown open to private initiative and investment. It aims to boost the country's exploration and mining efforts and render the mineral industry more competitive. After the post reform period the acquisition of land for large industries, mines or special economic zones has given rise to the livelihood insecurity of the less privileged people. Among the other activities mining operations not only affect the physical & biological structure of an area; it leads to an overall change of the surroundings of the targeted area. The loss of agricultural land & village settlement bring about a drastic change on demography & life style. It is, therefore, apparent that the development of mining changes the land use & landholding pattern of the affected area.

Prior to mining development, the means of livelihood of the local inhabitants were based on agriculture & forest. When communities are forced to leave the land that they have lived on for generations, they not only lose farming land but are also deprived of the forests, waters in ponds, streams and springs, and grazing lands on which their life was dependent. In this paper, two states of the eastern India, Jharkhand and West Bengal are selected where major mineral reserves are found. From these states two districts have been chosen to highlight the present condition of the displaced people due to mining activities. In the present study, to narrate this problem, stress has been given in the coal mining sector in the Raniganj coal field areas of West Bengal and coal mining industry of

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Jharkhand in Dhanbad Bokaro area. At present large-scale mining is going on at the area lies in the eastern extremity of Jharia Coalfield (JCF) in the Dhanbad district of Jharkhand state. This area is presently under BCCL.

Review of Literature

For centuries this region has been the homeland of indigenous people. These indigenous groups comprising 85 to 90 per cent of the total population of Jharkhand have been the worst hit by the large-scale exploitation of the natural resources of the region through the development of mines, industries and commercial exploitation of forests. This is only the physical displacement, involving relocation of the community. (Lahiri-Dutt K, 2000).

The indigenous people have a special relationship with their land. Regarding ownership of land the indigenous people have different concepts, often incomprehensible to outsiders. In the first place, ownership of land is vested in the community. A number of them have been illegally dispossessed of their land. Many have been forced to leave their homes to work in the brick kilns and stone quarries of West Bengal, UP, Punjab and other places as contract and even bonded labourers (Ghosh and Dhar, 2000). There is, however, another type of displacement known as 'secondary' displacement, with its short-and-long term impacts such as the loss of commons, decay of agriculture and displacement of peasantry, all eroding the livelihood bases of the community. But the development of mining has brought about job opportunities with the subsidiaries, associated with the shift of the jobs from the agricultural sector to the tertiary sector. Another view point highlights the emergence of the 'new poverty' situation due to the loss of the forest based earnings. Thus the vulnerability of the sharecroppers and marginal peasants become the worst which ultimately throw them into the illegal activities either in mining or in other forms (Areeparampil, Mathew, 1989). On the other hand the status of the displaced women becomes more vulnerable. The families which are headed by the women workers are forced to do the household works as made servant, quarry workers, prostitutes or any other unsecured jobs. As a result it affects the health of the women laborers (Bhanumati.K, 2000). Similar arguments given by the other economist that reduction of the opportunities of the women laborers finally disrupts the structure of the family, rather the children in the passive ways. The facilities of education, self employment and improvement in the standard of living is hampered due to the shift of the occupation (Chakrabarty, P.K, 1989).

But my question of this paper is how can we establish the resettlement of the displaced people in a standard manner and what will be the extent of this resettlement? How new jobs can be created without pushing them into the cheap or illegal activities? This paper focuses on the displaced people of Jharkhand and West Bengal and the resettlement effect of those people from their homeland. Affected peoples are those who stand to lose, as a consequence of the project, all or part of their physical and non-physical assets, including homes; communities; productive

lands; resources such as forests, rangelands, fishing areas, or important cultural sites; commercial properties; tenancy; income-earning opportunities; and social and cultural networks and activities. Rehabilitation refers to restoring the incomes, livelihoods, and social systems of the displaced people to at least the level of their pre-project status.

Aim and Methodology

The main objectives of the present study in the two selected states are:

1. To analyze the condition of the degraded land due to mining activities in West Bengal and Jharkhand.
2. To analyze the effects of these activities in the livelihoods of the selected mining areas.
3. To discuss the resettlement effect of the displaced people and how this effect can be countered through the rehabilitation programme.

This paper is presented on the basis of secondary data. Two states, West Bengal and Jharkhand have been chosen due to the huge mineral reserve and the districts, blocks are chosen purposively. Tasra and Arampara block in the Dhanbad districts and Raniganj and Pandabeshwar block in the Bardhaman district. The villages are chosen randomly and the secondary data of the socio economic changes due to the mining activities have been collected from the several mining reports. There are 15 villages in the core zone of Sonapur- Bazari Open Cast Project and all will have to be displaced. Out of 15 villages, 4 villages have already been rehabilitated and the remaining 11 villages will be displaced in near future in phased manner.

Land subsidence: its extent and effects

Mining activities destabilizes the surface forms of the entire areas. It actually hampers the areas lying not only vertically rather horizontally from which the minerals are extracted. When and if the surface land use is disrupted in the few cases where the land rights do not belong to the authority, the lands become unsuitable for the further uses for agriculture. The effects of the land subsidence can be summarized as follows:

Impacts on environment

1. Due to the opencast mining the exposed rock surface becomes uncovered which ultimately reduce the soil quality.
2. From the anthropogenic view point land reforms interferes with the natural eco system
3. A huge loss of tree cover in the area.
4. Overburdens from the abandoned mines are dumped on the surface which ultimately creates erosion of the soil.
5. Depressions are created by the subsidence which is serving as the temporary water resources.
6. The biodiversity becomes almost nil as these areas do not support aquatic resources and which results in loss of ground water level.

Socio economic impacts

The first and foremost effects is the displacement of the traditional peasantry to the other forms of jobs in the tertiary sectors. The traditional livelihood of the people has been lost. The indigenous

people who losses their land and forest due to mining activities are forced to face the hardships to mitigate their daily needs.

Economic Impacts

Emergence of the parallel economy along with the illegal mining operations, rampant corruption in the area and unorganized crimes. The 'underground economy' gives birth to a considerable number of people engaged in the illegal activities. The extent of the parallel economy ultimately reduces the government revenues and control over the areas.

Degradation of Land Due to Mining in Jharkhand

Jharkhand is one of the richest areas in the whole country, rich in minerals with huge reserves of coal, iron ore, mica, bauxite and limestone and considerable reserves of copper, chromate, asbestos, kyanite, china clay, fire clay, steatite, uranium, manganese, dolomite, tungsten, gold, etc. The most important physical asset, land, shows highly skewed distribution in rural Jharkhand. The large-scale mining and allied activities going on in the Jharkhand region have caused severe damage to the land resources of the area. Vast areas of rich forests and agricultural

lands belonging to the indigenous people have been laid waste because of haphazard mining. Underground mining operations, especially of coal, have created unsafe surface conditions in many areas warranting diversion of roads, railway lines, etc, and the shifting of a number of townships. It is estimated that the rate of degradation of land will intensify to 1,400 hectares a year or more. This will have serious economic impact upon the villages and their agrarian population. The existing agricultural and forest lands will shrink further with the eventual emergence of more waste land. According to the 2005 RJBS data the bottom 43 percent of the rural population, as per the landownership scale, has only 4 percent of land, while the top 8 per cent has 41 percent (Table 1). The average size of landholdings has declined over the 10-year period from 2.25 acres to 1.64 acres, which is a very sharp drop by any standard. In the first place, ownership of land is vested in the community. No individual has the right to permanently alienate the land from the community. One of the major causes of land alienation and displacement in the area is the mining industry.

Table: 1
Distribution of Land and Non-Land Assets (in percent)

Household	Land Owned	Land Owned 10 Years Ago	Non land Assets
Land Ownership Category			
Landless	43.0	4.2	7.7
Marginal	21.2	12.0	15.6
Small	15.7	17.5	18.0
Medium	12.8	25.1	24.4
Large	7.5	41.2	34.3
Social Category			
SC	11.5	8.5	7.0
ST	26.9	34.0	36.6
OBC	46.0	38.7	38.6
Others	15.7	18.9	17.8
Total	100.0	100.0	100.0

Source: Estimated from the 2005 Rural Jharkhand Baseline Survey (RJBS).

The study area commonly known as Tasra Block consists of seven Mouzas in the Dhanbad district of Jharkhand. The area lies in the eastern extremity of Jharia Coalfield (JCF) in the Dhanbad district of Jharkhand state. Present study has been conducted to understand the Social Impact Assessment due to the mining projects and formulation of a suitable and acceptable Resettlement & Rehabilitation policy based on the valuation of the property of the entire Project Affected Persons (PAP). The large-scale exploitation of the natural resources of the region through the development of mines, industries, etc, has adversely affected the indigenous people of Jharkhand. A lot of land is illegally mined by private contractors. Besides, land is also converted into roads, townships for miners, infrastructure for administrative purposes, stockyard for preliminary processing operations, etc. Further, disposal of mining debris creates pollution and makes agricultural fields infertile forcing the people to abandon or alienate their lands and move out to other areas.

Rehabilitation and Resettlement Policy of CIL (Coal India Limited), 2012

The rehabilitation and Resettlement policy followed by the CIL and its subsidiary companies

have evolved over time and undergone numerous changes in response to changing circumstances. But the growing population in the Eastern regions has made it difficult for the subsidiary companies to expand their opencast mining activities as per their need. The followings are some of the rehabilitation and resettlement measures that have been focused by CIL in the recent policy.

Persons from Whom Land is Acquired

1. Provision for monetary compensation (as per the prevailing legal norms) against the land acquired from such persons.
2. In addition to above, employment against land would be considered for entitled looser meeting the eligibility criteria.
3. In case, if it is not possible to offer employment, one time grant in cash in lieu of employment against acquisition of land.

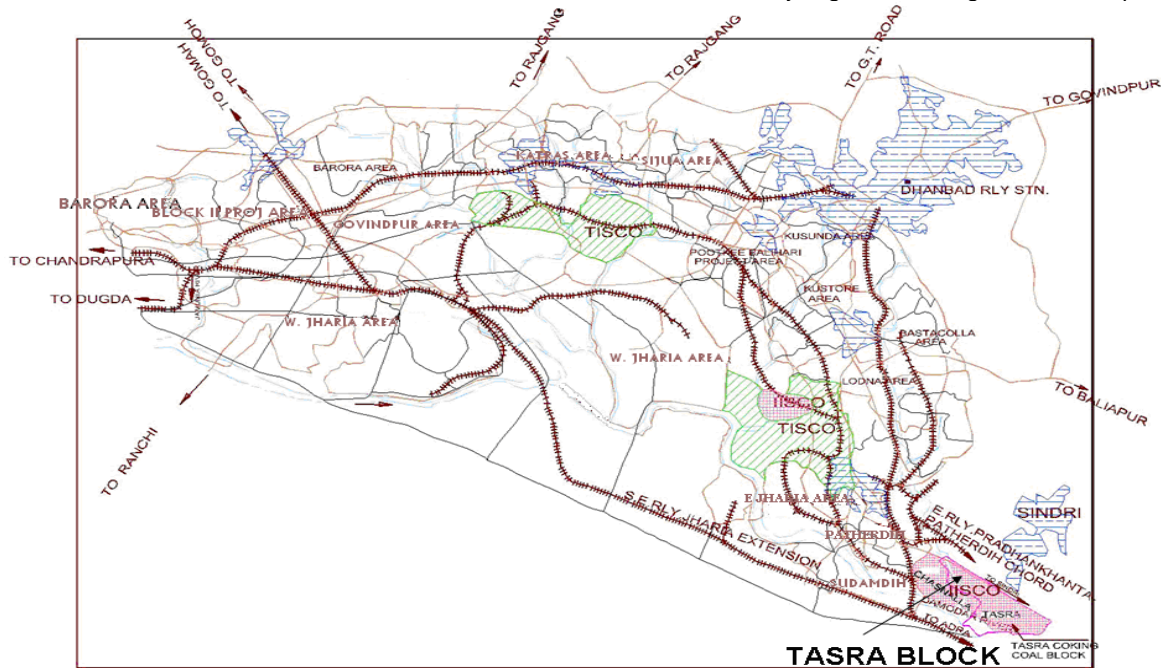
Persons whose homestead is acquired

1. Alternate house site (plot) per family would be allotted.
2. Family displaced with their cattle would be given financial assistance for construction of cattle shed.

3. Each displaced would be given one time financial assistance for shifting of family, their belongings and cattle.
4. Each displaced trader or self employed person, rural artisan would be given onetime financial assistance for construction of working shed / shop.
5. Each affected family would get subsistence allowance for a period of one year.

Land Less Tribal

1. The organization would assist project affected persons to establish self employment through the provision of infrastructure, petty contracts or formation of cooperatives Or Jobs with contractor would be persuaded to eligible affected persons on preferential basis where ever feasible.
2. In addition to above, each landless tribal dependent on forest produce would be given one time financial assistance as per norm for loss of customary rights or usage of forest produce.



Displacement of the Tribal People due to Mining in Jharkhand

About 32 per cent of the people living in Dhanbad district in 1981 were in-migrants. During 1981-91 alone the proportion of STs to the total population in the whole of Chhota-nagpur and Santhal Parganas fell from 30.26 per cent to 27.67 per cent. This clearly shows the rapid increase in the influx of outsiders. The displacement of indigenous people can also occur through indirect pressure on their lives by the establishment of industries, mines, towns, etc. One such factor which forces them to move out of their habitats is pollution of air and water. This displacement caused by the expansion of the industrial-urban sector further resulted in many cases in the migration of indigenous people to outside regions in search of livelihood. The immigrant outsiders have legally or by fraud displaced the indigenous people from their habitat.

Degradation of Land due to Mining Activities in West Bengal

In India, major coal fields are located in state of West Bengal, Bihar and Orissa. Raniganj coal field is having a large number of coal mines in terms of quality of coal and extraction of. There are more than 800 coal mines in India. India occupies 3rd position in the world in the field of coal production. Raniganj coal belt is an important coalfield located in

Damodar river valley. West Bengal state has 2512.4 billion ton total reserve coal. Total coal reserve up to 600 Mt depth is 35 billions tones, about 23 billion tones in West Bengal. The total extractable reserve of coal has been accessed as 8 billion tonnes; this includes 6 billion tones in West Bengal & 2 billion in Jharkhand. Before coal was discovered in Raniganj in the late 18th century, this area was a forested district known as Jangal Mahal. Land degradation & land subsidence arised due to coal mining activities. This kind of impact capacity of soil & resulting the failure of crops. In total, 8.75 % and 26% percent peoples suffered in Asansol and Raniganj due to land subsidence. Their total agricultural lands are now converted in to fallow land / barren lands. The villages like Phatehpur, Barachak, Narsamuda & Egara villages are severely affected by land subsidence this kind of impact. Rice, Pigeon pea & wheat are major crops grown in this area. Increase in coal mining activities in the area converted agricultural land in to fallow/barren & degraded lands. Area under land subsidence is increasing due to underground coal mining. As a result of this water holding capacity of agricultural & other land is reducing.

Displacement due to Mining Activities in West Bengal

However, out of total villages, due to mining hazards, local administration has been proposed to

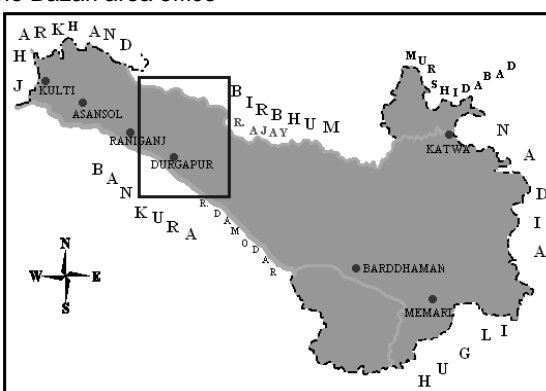
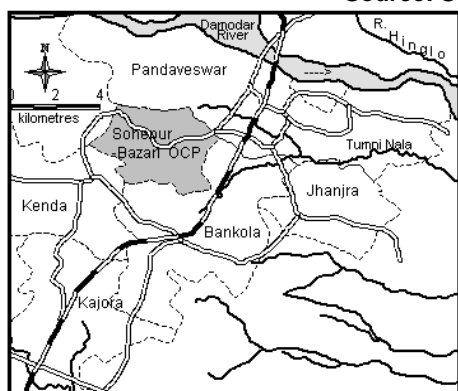
re-settle 15 villages as rehabilitation in the adjacent area. This expansion will enhance Socio-economic benefits to the local population by way of direct and indirect employment, improvement in infrastructure and growth in ancillary facilities in those villages.

The table in the following segment gives us the clear picture of the displaced people in the Raniganj coal areas.

Table 2
Distribution of the Number of People Affected in the Raniganj Areas and the Status of Rehabilitation

SI no.	Name of the Villages	No. of Families	Population	Status (Rehabilitated)
1	Ruidaspara	64	200	In 2 years
2	Punjabidanga	119	317	In 1 years
3	Hansdiha	210	482	In 3 years
4	Bheladanga	94	212	In 1 years
5	Bhaluka	55	347	In 2 years
6	Kuchberia	50	250	In 2 years
7	Basabdanga	100	300	In 3 years
8	Bandhaghat	30	80	In 2 years
9	Sonepur	550	2158	In 8 years
10	Arsula	100	300	In 3 years
11	Bhatmura	130	500	In 8 years
12	Bazari	385	2409	In 8 years
13	Madhudanga	130	400	In 10 years
14	Nabagram	500	4643	In 10 years
15	Sankarpur	160	900	In 10 years

Source: Sone Bazari area office



Source: compiled from DPMS (SOI), W.B. District Census Handbook and Landuse Map of Raniganj Coalfield (CMPDI, Asansol)

Before displacement 25% workers were cultivators but after displacement it is reduced to 12% because due to coal – mining activities, agricultural lands are lost. For loss of 2 acres of agricultural land, 1(one) employment was provided in ECL as compensation. Thus cultivators have now turned into employees of Coal industry. 78% of villagers responded that they support coal mining industry in this area but remaining 22% responded in negative. 92% of villagers lived in this village since birth. So, they are strongly bonded with their village. Villagers agreed for displacement as coal mining is associated with Industrial development of our country but on personal ground no one wants to leave their parental home and birth place. All villagers had very strong bondage with their neighbor as they lived together since birth. The growth of mining activities in the region has acted as the most powerful stimulant in the emergence of new industries and in the growth of new urban centers. These in turn have caused further alienation of indigenous people's land and their displacement.

The Resettlement Effect

Resettlement effect is defined as the “loss of physical and non-physical assets, including homes, communities, productive land, income-earning assets and sources, subsistence, resources, cultural sites, social structures, networks and ties, cultural identity, and mutual help mechanisms”. The effect introduces well-documented risks over and above the loss of land. Investigations into displacement have found nine other potential risks that deeply threaten sustainability; these include joblessness, homelessness, marginalization, food insecurity, loss of common lands and resources, increased health risks, social disarticulation, the disruption of formal educational activities, and the loss of civil and human rights. Failure to mitigate or avoid these risks may generate “new poverty,” as opposed to the “old poverty” that peoples suffered before displacement.

How to Counter the Resettlement Effect

The key question remains: Who pays for countering the resettlement effect in mining-induced displacements and resettlements?

We should first define the liability or the impoverishment risk assessment which may provide a fairly good estimate of losses and rehabilitation costs (measured in terms of time, restorative actions and money). The core wisdom is that restoration of livelihoods and rehabilitation are more likely when all potential impoverishment risks are identified early and when organizational and financial arrangements are made to mitigate or avoid these risks. The alternative livelihoods of the displaced people should be ensured on the basis of the extent of their loss due to degradation of land.

Policy Suggestions

1. Mining induced displacement and resettlement and the new poverty they create are not high priority issues for the industry. This article suggests that a cost benefit analysis should be done by the authorities before giving the compensated amounts to the land losers of the areas. This analysis should be measured taking into the account of the market rate of the lost assets as well the opportunity cost of the present jobs of the affected people.
2. Avoidance of new poverty will clearly come from arranging sufficient financing and moving beyond compensation to an equation based on "compensation + investment + stand-alone financing." The key players are poorly prepared to respond to the problem. Most of the affected people should be taken under the purview of self employment generating projects as early as possible after displacement.
3. Likewise, forced development-induced displacement is not a socio-political problem routinely faced by most governments. Although people continue to be relocated, the goal of rehabilitation remains exceedingly difficult to achieve, and the preferred goal of sustainable development, where people are better off than they were before resettlement, has seldom been achieved. Compensation by itself cannot adequately restore and improve the income levels and livelihood standards of people subjected to expropriation and forced displacement.

Conclusion

Mining activities induces the development should be a holistic concept that encompasses the

progressive improvement in the quality of human life in terms of food, clothing and shelter and the conditions for a healthy living with increasing longevity of life and happiness. In India the development process reveals the symptoms and effects of widening inequalities between the 'haves' and 'have-nots' and the increasing deprivation of the poor and marginalized sectors of the population. There are very little trickle down effects of the economic growth associated with this model of development. But when it is necessary to undertake development projects that involve the displacement of people, it is essential that these projects obtain the legal mandate and support of the people who are affected and that in return for giving up their land and homes they receive priority if not exclusive rights to the benefits emanating from these projects.

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