

Impact of Mining on Tribal Socio-economic and Environmental Risks in India

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ABSTRACT

Post-independent India's policies have resulted in development-induced displacement and impoverishment of a large number of people. As a task of national building processes, planners were focused more on economic development, which basically emphasized mainly on the growth of GNP. This resulted in the establishment of Industries, dams, mega projects and mining etc. Introduction of these projects has brought changes in the patterns of land use, water and other natural resources. Availability of these minerals in tribal areas has brought huge changes with the opening of various mining companies. The paper examined mining and its impact on tribals in India.

Keywords: Development, Mining, Displacement, Exploitation, Resettlement, and Livelihood.

Planned development in India brought in its wake the establishment of large-scale projects in power generation, mining, industry, infrastructure development, irrigation, in addition to creating new urban settlements. However, these development projects also led to the displacement of people, mostly the tribals, from their original habitat forcing them to migrate to new areas. This involuntary displacement of people from their productive assets (particularly land) and homes, due to industrial or infrastructure projects has been one of the social issues leading to intense debate among academics, social activists, and planners. Though the process of land acquisition for setting up mining, irrigation, transportation, or mega-industrial projects (mostly in the public sector) is not new, the intensity of adverse effects was never comprehended in the past as it is done today. The problem of Mining-Induced Displacement and Resettlement (MIDR) poses major risks to societal sustainability. Involuntary resettlement under development projects, if unmitigated, often germinates into severe economic, social and environmental risks: productive systems are dismantled; people face

impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources is greater; community institutions and social networks are weakened; kin groups are dispersed; cultural identity, traditional authority, and the potential for mutual help are either diminished or lost; and as a result, violation of human rights (Sengupta, 2001).

The Scheduled Tribes constituted about 8.2 percent of the total population in the country according to the 2011 Census. They also constituted 55.16 percent of the total displaced population, which indicates the extent of victimization of the tribes. Development-induced involuntary displacement of the tribes take place in most states, mainly in the tribal concentrated regions of Bihar, Orissa, Andhra Pradesh, Madhya Pradesh, Gujarat and Maharashtra. Further, it has been observed that during the last 60 years, for various dam projects, about 6 crore people have been displaced, out of which 4 crores have practically turned into beggars in the streets (Fernades, 1994; Tripathy, 2003; Rangachari, 2006).

A significant number of tribal people, who are generally dependent on the natural and common resources, are displaced, and their ethos and lifestyle is dismantled and denigrated for the sake of developmental projects. Apart from the loss of land, living conditions, and lifestyle (of generations), displacement causes other traumatic, psychological and socio-cultural consequences, making life more miserable and impoverished (Mohanty, 2005).

In view of the above problems, the present paper is aimed to provide basic information on mining and its importance as well as reasons for mining in tribal areas. Besides, it also aims to highlight the impact of mining on tribal people and the problems of rehabilitation programmes.

HISTORY OF MINING INDUSTRY IN INDIA

India has a long history of commercial coal mining beginning from 1774 with M/s Sumner & Heatly of the East India Company in the Ranigunj area — a portion of undivided Bengal-Bihar and Orissa unit. This unit was administrated by the Bengal Presidency under the leadership of Warren Hastings. During the 1800s many private individuals and companies obtained coal mining leases from the colonial government and started digging and transporting outside India. There were only 91 mining companies during the 1891 Census, but by 1942, there were as many as 725 coal mines operating in the whole country at different places (Premananda Panda, 2011).

After Independence, the country embarked upon 5-year development plans and the need for increasing coal production by systemic & scientific development resulted in the setting up of the National Coal Development Corporation (NCDC) in 1956. On account of burgeoning energy needs, unscientific mining practices and poor working conditions adopted by the private mine owners of the central government decided to nationalize the private coal mines. In pursuance of the IPR, the Parliament enacted the Mines and Minerals (Regulation and Development) Act, 1957 [MMRD Act] applicable to all minerals except mineral oil. Mineral Concession Rules (MCR) and Mineral Conservation and Development Rules (MCDR) were framed under the Act. MCR deals with major minerals but the State governments are free to frame

their own rules for mineral concessions with respect to minor minerals. Accordingly, most States have framed their own Minor Mineral Concession Rules. The first amendment of the MMRD Act was made in 1972, enhancing government control through such measures as premature termination of mining leases (ML), lowering of ceiling on individual holdings, for the Central Government to undertake prospecting and mining in certain areas and the removal of ceiling on royalty. The next amendment made in 1986 was even more regressive. When prior approval of the Central Government that had to be obtained for the mining of scheduled minerals increased from 27 to 38, the Central Government was authorized to reserve areas for Public Sector Undertakings (PSU's) and approval of mining plan was made mandatory. The MCDR was revised in 1988 to enable IBM to monitor and regulate all mining activities (Pichamuth, 2011).

The development of this industry is undoubtedly a milestone in the field of industrial development of the country. The Indian Bureau of Mines in its "Indian Minerals at a Glance", revealed that India earned ₹ 59509 crores from mineral production alone.

Through the new economic policy of 1991, the Government of India encouraged privatization and globalization. At the policy level there was a great shift from the public to the private sector and from state monopoly to the opening up of the market to global trading. The Mines and Mineral Regulation and Development Act was amended in 1993 in line with the new economic policy of the Government of India. This was again amended in 1994 and 1999 to accommodate private parties mostly of foreign origin with a hope of inflow of foreign funding. Subsequently, states like Orissa, Chhattisgarh, Jharkhand, Madhya Pradesh and Andhra Pradesh etc. are accelerating further today than ever before in terms of extraction of mineral deposits, MoUs with the cooperate bodies, and also unwanted disturbing forces such as the naxals. Compared to the colonial forces that subjugated the native Adivasis, the country after independence has been more exploitative in nature in terms of the extraction of commercially viable mines and minerals without foreseeing the social cost incurred by the communities living in and around the natural resources. The snow clad mountains

are increasing in area every day. This places mother earth at great environmental risk, causes a huge loss to the cultural ecology of the people at the grassroots, and generates a threat to the symbiotic relationship between the resources and the people that has existed since time immemorial. Sustainability is inherent in the practice of tribal communities. However, it has altered through the history of political and economic subordination with the customary rights of the people on the common property resources being ignored and mutilated. Finding no other alternative, the people resort to non-traditional sources of income. This results in the increasing participation of people in the labour market as diggers, lifters, and other labour intensive engagements, while a few unfortunates who fail to secure any employment migrate across the state borders to work in brick kilns, construction units, etc.

WHY TRIBAL LAND FOR MINING

There has been a steady exploitation of natural resources from tribal areas for the purpose of nation building. The pressure on forests mostly come from outside the forestry sector and among them the most important cause is mining. Mines can occupy and spoil large tracts of land. Many mines have been opened during the last decades and still more are on the way. These affect the forest ecosystem to which the tribal communities "social support system" is intimately connected.

The mines are located largely in the traditional habitats of the tribes and have been looked upon as the resources of the entire country. Tribal areas produce most of the country's coal, mica, bauxite and other minerals. They have been exploited in the name of national interest, unfortunately by extinguishing the rights of the scheduled tribes, and by paying nominal monetary compensation only for land. Tribal communities quite often had their habitats and homelands fragmented, their cultures disrupted, their communities shattered, and have been converted from owners of the resources within well knit contented communities to individual wage earners in urban agglomerates with uncertain futures and threatened existence. Since, tribal land is generally non transferable, the land markets are underdeveloped and the cost of acquiring land in tribal areas is extremely low. The rate of

compensation is, therefore, inadequate, usually based on national market value. The subsequent value of the land after implementation of the project is enormous but is never taken into account. This encourages the tendency to acquire land in excess of the requirement. Mining companies in particular acquire land far in excess of requirements.

BRIEF OUTLINE ON SCALE OF DISPLACEMENT

Asian countries record the highest incidence of displacement. In India, around 21 million people were affected during the last four decades. Though millions of people have been displaced by various planned development schemes since independence, no reliable data exists on the extent of displacement and rehabilitation. Only a few official statistics are available. Some case studies indicate that official sources, by and large, tend to underestimate the number of persons displaced by development projects. Among the displacing agents like dams, industries and mines, dams occupy the top position. An estimate in eight states of India, viz. Andhra Pradesh, Assam, Gujarat, Goa, Jharkhand, Kerala, Orissa and West Bengal, shows that about 19,781,109 people were displaced by projects effected between 1947 and 2004. If other states of the country are to be added, the figure becomes double. A significant number of the displaced people are the tribal and economically marginal rural populations who depend on natural resources such as forests and rivers for their livelihoods.

A total of 213 lakh people have been displaced by various development projects (Fernandes and Paranjpye, 1997: 15). These figures do not include the sizeable number of people who are acknowledged as being 'project affected' (by loss of livelihood caused by natural resources extraction or degradation), those displaced in urban areas and those victimized by the phases of secondary displacement. If they are tallied, the number of displaced since independence would be as high as 4 crore (Kothari, 1996). The number of people permanently up-rooted from their homes is equal to or larger than the population of many major sovereign countries. Of the 213 lakh displaced people estimated by Walter Fernandes and V Paranjpye, 25.5 lakh people have been displaced by mines, 12.5 lakh by industries, 164 lakh by large and medium dams, six lakh by park

and wildlife operations and five lakh by other projects. Among development projects, dams are the biggest agents of displacement. India has the distinction of having the largest number of river valley projects in the world. For rapid irrigation and hydroelectricity production, there are a total of 3,643 dams (major and medium), which have been constructed during the period of 1951-90. Together with 53.9 lakh displaced by medium dams, a total of 164 lakh people have been displaced by all dams during the period of 1951-90. Thus, backward communities, and more particularly people in tribal regions have been most affected in this process of development since they live in resource-rich regions. Due to rapid industrialization in tribal areas, 3.13 lakh people have been displaced due to mining operations, and a total of 13.3 lakh tribals have been displaced from their ancestral lands. In addition to direct displacement, mining activity also affects the livelihoods of thousands more as water tables get disrupted, an excessive burden is dumped on fertile agricultural land and forests are cut (Mohapatra, 1991). Not only are communities deprived of their vital subsistence resources, their long-term sustainability is also jeopardized.

LEGAL AND POLICY ASPECT ON DISPLACEMENT

To carry out the process of expropriation and alienation from landholding rights, the state is well equipped with a set of colonial laws under the Land Acquisition Act (LAA) amended in 1984. The British were all set to modernize the then capital city, Calcutta, but they were ill equipped, without acquiring the state rights over individual land. The first All India Act VI of 1857 was passed where land owners were required by the legislature to surrender some of the rights they possessed over their land for the purpose of public utility. A comprehensive LAA covering the whole of British India became an Act on March 1st, 1894. Under the clause of "Eminent Domain" and "Public Purpose" the state acquires private land. The Central LAA enables the acquisition of land. On the other hand, the matter of state's provision for compensation and R&R measures differ from state to state. In addition to LAA, the Coal-Bearing Areas Act, 1957, occupies a prominent place in land acquisition and displacement (Bahera N.K. 2012).

Involuntary displacement of the tribals from their habitat through the government's acquisition of land and forest to facilitate processes of industrialization such as mining, heavy industries and dams etc; have threatened the voiceless masses. Hence, tribal people who have lived for centuries in their ecology are now in the process of transformation. In addition, it has also been observed that there has been a shift in the use of land and forest for non-agriculture and non-forest activities. During the post 1990 period, land and forest in states such as Orissa, Andhra Pradesh, Madhya Pradesh, Chhattisgarh and Jharkhand have been acquired for industrialization, especially for mining.

IMPACT OF MINING ON SCHEDULED TRIBES

For centuries, indigenous people lived in a harmonious relationship with their environment. Since their lives are closely related to nature, any adverse impact on the environment in which they live will adversely affect their lives as well, and vice versa. The concept of displacement should be seen from the wider perspective of this symbiotic relationship between environment and people. Otherwise, it may lead to further deterioration of natural resources available in tribal areas. The large-scale exploitation of the natural resources of tribal areas through the development of mines has various negative impacts on their socio-economic life. Some of the important issues are highlighted in the following.

Physical Environment

In spite of the existence of strict environment laws and regulations like the Forest Conservation Act and the Environment Protection Act, there are serious violations of these legislations. Tribal areas, being remote and inaccessible and tribals being illiterate and ignorant, mining companies can easily violate all environmental rules and regulations. The mining companies normally go ahead with mining operations without any environment impact assessment studies or environment management plans submitted prior to the commencement of mining activity. This also contributes to over exploitation of natural resources in tribal areas. The exploitation of mineral resources through surface and underground mining has caused wide ranging

environmental problems such as land degradation, air, water and noise pollution, etc. These problems are accentuated by the multiplier effect of mining in the tribal areas, which has acted as a catalyst for urbanization and industrialization.

Land degradation: Large-scale mining and allied activities have caused severe damage to the land resources of the tribal areas. The forests and agricultural lands belonging to the tribal 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. Over 49 localities have been declared unsafe for human habitation in the Raniganj coalfield area alone. The union government is reportedly planning to rehabilitate people in the new town of Mangalpur near Raniganj, where 60,000 people are affected by mine-related subsidence (Anon, 1994). According to the Chari Committee report, 6,055.5 hectares of land in Raniganj coalfield and 4,561.14 hectares in Jharia coalfield have been severely damaged due to subsidence, abandoned quarries and spoil dumps (Chari *et al.* 1989). Of the 2.13 million hectares of land in which coal is found in India, over 0.36 million hectares (16.9 per cent) have been damaged due to the past coal mining activities (Rehana and Saxena, 1994). According to B P Baliga (1994), in the 1980s the coal mining industry was identified as a major cause of damage to the environment, with more than 75 sq km of land being destroyed every year.

Water and Air pollution: Large-scale mining operations going on in the tribal areas have adversely affected the ground water table in many areas with the result that the yield of water from the wells of adjoining areas has drastically reduced. Further, effluents discharged from mine sites have seriously polluted the streams and underground waters of the area. Acid mine drainage, liquid effluents from coal handling plants, colliery workshops and mine sites as well as suspended solids from coal washeries have all caused serious water pollution by adversely affecting fish and aquatic life. As stated by Singh J. (1985), the Damodar River, the major source of water in the region, is perhaps the most polluted river in India. It receives waste from many industries situated on

its banks. A study of the area showed that a single coal washery was discharging about 40 tonnes of fine coal into the Damodar every day. There are as many as eleven coal washeries in the region with an annual installed capacity of 20.52 million tonnes. It is also important to note that the Damodar is considered as a sacred river by the Santal tribals. Unfortunately, it has become quite like a sewage canal, shrunken and filled with filth and rubbish, emanating obnoxious odours. Other major rivers of the region are also seriously polluted for instance, the Karo River in west Singhbhum is polluted with red oxide from the iron ore mines of Noamundi, Gua and Chiria. The Subarnarekha shows a different type of pollution, even more hazardous than this. Metallic and dissolved toxic wastes from Tata Iron and Steel Company (TISCO), Jamshedpur and HCL, Ghatsila; radioactive wastes from the uranium mill and tailing ponds of the Uranium Corporation of India Limited (UCIL) at Jaduguda flow into Subarnarekha and its tributaries. Millions of people living along the banks of these rivers are compelled to drink water which contains both radioactive and chemically contaminated wastes. Mining and allied operations are causing serious air pollution in the region. Open cast quarries, coal washeries, thermal power plants, coke-oven plants, cement factories, fertilizer plants, etc., contribute to serious air pollution (Areparampali: 1996). In Orissa, The River Brahmani (Its tributaries) gets about 98000 crore litres of polluted water that are discharged from the mine (MCL) every year (and on an average 10000 litre from the Jagannath colliery alone). The level of heavy metals in this water, is higher than that in water from industrial waste water and exceeds the limits prescribed by the State Pollution Control Board. According to the board, the water quality of the Brahmani River at several stations under the MINAR (Monitoring of Indian National Aquatic Resources) programme and the level of suspended solids in the Brahmani river water, remains fairly high through-out the year and "very high" during the monsoon. Studies conducted by the College of Veterinary science, OUAT, Bhubaneswar show that 23.7% of domestic animals in Talcher mining area were affected with muscular skeletal system disorder and 25% of domestic animals in Talcher mining area were affected with mouth disease. The primary study of the College of Veterinary science, OUAT indicates that most of the animals exhibited

the clinical signs of respiratory system failure in villages near the mining area. Significantly high rates were recorded in abnormalities of respiratory system and eye (Panda, Debadutta Kumar, 2010).

ACQUISITION OF LAND

The indigenous people have a special relationship with their land. To them land is not simply a factor of production. It has a spiritual significance as well. With regard to ownership of land, the indigenous people have concepts different from ours. Often, ownership of land is vested in the community and no individual has the right to permanently alienate the land from the community. The tribe is the trustee of the land it occupies. The community or tribe includes not only the living members but also their ancestors and future generations. Their society, culture, religion, identity and their very existence are intimately linked to the land they hold. To separate the indigenous people from their land is tantamount to tearing them away from their life-giving source. However, there has been continuous exploitation of land, which is the main source of livelihoods for many of the tribal people in the country. The following cases will provide better understanding on how tribal lands have been acquired by mining companies.

(a) In Jharkhand region, many 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 north Bihar, West Bengal, UP, Punjab and other places as contract and even bonded labourers. Although the exact extent of land alienation and displacement is difficult to ascertain, the major causes of land alienation and displacement in the area is the mining industry, particularly coal. In the past, vast tracts of the coal bearing areas of Damodar Valley had been acquired by private firms often by fraud and had been turned into waste-lands by haphazard mining. After the nationalization of the coal industry, the coal mining in this region was entrusted to Coal India (CIL) and its subsidiary companies BCCL, ECL, and CCL. These coal companies are at present acquiring extensive land areas and displacing a large number of families. According to an estimate, between 1981 and 1985, the Central Coalfields acquired 1, 20,300 acres of land. Similarly, Eastern Coalfields has acquired about 30,000 acres during the Sixth

Plan period. More than 32,750 families have been displaced. But Coal India could offer jobs only to 11, 901 displaced people (Government of India 1985).

(b) A study by CMPDI has envisaged that between 1994 and 95, the total land requirement for coal projects in Jharkhand area would be 62,642 hectares of which 22,843 ha (37 per cent) would be forest land. Out of this, 11,909 hectares of forest land and 26,576 hectares of non-forest land would be taken up by coal projects in the Karanpura valley alone (Tandon G L 1990:29).

(c) The Rajmahal Coal Mining project of ECL in the Godda district will displace about 6,000 people from seven villages. In this project the pit area under proposed mining covers 5.5 sq km. The Piparwar Coal Project, located in the North Karanpura valley, covers an area of 6.38 sq km with mineable coal reserves of 197 million tonnes. The Piparwar open pit mine that started in January 1990 is the first of what could be no less than 24 new coal mines, which would rip the valley from one end to the other to yield 29 tonnes of coal annually. According to official claims, the project will displace 460 families from two villages. However, unofficial reports say that at least 15,000 people from 14 villages and hamlets will be severely affected by the mines, the washery and other auxiliaries. The project is causing severe damage to the environment - 289 hectares of reserved forests are being clear-felled for the construction of the mine and other facilities. The coal produced at Piparwar will be transported to two thermal plants near Delhi for generating electricity for the use of industry and domestic consumers in Delhi.

All this would happen at the terrible cost of environmental destruction and social damage in the entire north Karanpura valley. The north Karanpura valley contains some of the best rice lands and forests in Hazaribagh district. The valley is also unique in its archaeological significance. Recently, exquisite prehistoric rock paintings have been discovered in cave shelters at Isco and Thethangi in the eastern part of the valley. Further, ancient stone implements, iron slag and burial grounds have been found at several places close to the Piparwar mine site. All these remnants of a rich and long cultural history are threatened with imminent destruction due to the project. According to the Directory of Mines and Mine Leases published in 1976 by the

Indian Bureau of Mines, there were about 300 mines operating in Singhbhum and more than 1,51,000 acres of land were leased out, which were owned mostly by private agencies. However, the total land area affected by mining is many times greater than the simple lease area. 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 (Areeparampali: 1996).

(d) For Langigarh Project, the Government of Orissa has signed up with the Vedant Company of the UK for extracting aluminium from bauxite in Niyamgiri Hills. A total of 1444.666 hectares of land was acquired, of which 723.34 hectares was for the alumina refinery, and 721.323 hectares for the mines. This includes 730.961 hectares of forest land, and the project displaces a little more than 100 families. The tribals have been apprehensive of being deprived of 232.75 hectares of their land. Further, the Dangaria Kondhs of Kalahandi District are likely to lose their homes and sources of livelihood. Similarly, the Doraguda plant alone affects 2500 persons, while open cast mining in Baphlimali is likely to affect 2500 families in 24 villages in three Panchayats namely; Chandragiri, Maikanch and Kodipari (Premananda Panda, 2012).

It is clear that many tribal families were displaced from their ancestral lands due to the construction of mines. They have not yet been properly resettled, nor have they received full compensation for their lands. The further expansion of mining activities in tribal areas has acted as the most powerful stimulant in the emergence of new industries and in the growth of new urban centres. This in turn have caused further alienation of indigenous people's land and their displacement.

MIGRATION OF TRIBAL PEOPLE

The rapid expansion of industries and mines in tribal areas was followed by a phenomenal growth in urbanization and a large-scale influx of outsiders to the area. This in turn has resulted in increased land alienation and displacement of indigenous people. This displacement, caused by

the expansion of the industrial-urban sector further resulted, in many cases, in the migration of tribal people to outside regions in search of livelihood. The immigrant outsiders have legally or by fraud displaced the tribal people from their habitat. In Singhbhum, the proportion of STs and SCs fell from 58.54 per cent in 1931 to 47.38 per cent in 1991; the proportion of ST alone fell from 54.08 per cent in 1931 to 42.28 per cent in 1991. The situation is similar in other parts of Jharkhand. Districts like Dhanbad, Ranchi and Hazaribagh have also had a very great increase in the number of immigrants. 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 Chhotanagpur 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 the pollution of air and water. For example, the cement dust from the ACC cement factory at Jhinkpani in Singhbhum is polluting the air and making vast areas of agricultural and practically useless. Besides this, the adivasis have an aversion towards the dikus and move out of their areas because of the conflict of cultures when the dikus became the majority (Areeparampil, Mathew, 1996). The increasing criminalization of society in the industrial-urban sector due to robbery, goondaism, prostitution, communal riots, etc, is another reason why the simple tribal people opt out of such areas. This negative urban pressure is accompanied by rising price offers by speculators for their land. These push and pull effects have indirectly forced the tribal people to move out of their hearths and homes.

JOBLESSNESS

In the process of development, tribal areas are witnessing not development but the exploitation of its people and of its natural wealth through a process of colonialist and capitalist exploitation. The brutality inherent in the process of industrialization - the plundering of mineral wealth, and the decimation of forests which provided much of the livelihood for their people, has not only reduced

the majority of the inhabitants of these areas to destitution but has also brought the area to the brink of an ecological disaster. The large-scale exploitation of mineral resources in tribal areas require casual labour.

The indigenous people who are reduced to destitution are forced to accept this role. Capitalist development and exploitation thus form a vicious circle for the tribal people. On the one hand, it has rendered ever increasing numbers of them destitute through eviction, destruction of their sources of livelihood, etc, and on the other, it has utilized their destitute condition to employ them for a specific role in this process, namely, that of sweat labour or proletariat.

It is further stated that use of sophisticated and modern technologies with foreign investment helps to carry out mining activities with minimum human resources, hence providing employment only to highly competitive and professional white collar employees. The few jobs available relate to supervisory and skilled work, which are given to non tribals as the literacy rate among the tribals is very low. A study conducted by Pandey (1998) discovered that before displacement about 56% of women were unemployed; the figure rose to 84% after displacement. In the primary sector, employment dropped from 37 to 12 percent, while in the secondary sector it fell from 6% to nil. As a result, women who were already marginal in the production process were deeply downgraded.

LOSS OF HOME

The pattern of new poverty persists in displacement risk and homelessness is defined as the “loss of house-plots, dwellings and shelter.” For many people homelessness may be only temporary, but in poorly executed displacements, it remains chronic. New poverty becomes a problem when the losses go beyond the simple loss of a structure. Homelessness or the replacement of a house with a structure that its occupants may not consider “a home” is often associated with a profound loss of identity and cultural impoverishment as the symbolic importance of place, in terms of family cohesion and a remembered location for mutual support, not only from the household but neighboring households as well, is disturbed.

DISRUPTION OF FORMAL EDUCATIONAL ACTIVITIES

Mining induced displacement also disrupts education and routine socialization. Cernea,(1999) notes that displacement and relocation often cause a significant interruption in the functioning of schools and in child access to education during the year of transfer or for longer periods of time. Empirical studies show that a number of these children never return to school and instead join the labour force at an early age. The process of relocation distracts parents from focusing on their children’s education as they struggle to reconstruct their physical and productive environment.

LOSS OF CONTROL OVER COMMON PROPERTY RESOURCES AND SCARCITY OF FOOD

When mining companies take over not only *patta* lands but also forest and government lands, village commons, etc, the local people lose all control over the resources. Houses and places of worship are demolished, forests are cleared, grazing lands, burial grounds, etc are occupied, thus leaving the communities with no scope for following their earlier livelihood patterns. Migration to other areas makes the host communities hostile to the newcomers who would not be willing to share their common property. People, especially women, have to walk longer distances and spend more hours of work for grazing cattle, gathering food and fuel wood, etc. when these common properties are destroyed. By losing their lands, trees and forest, the tribals are deprived of food security leading to starvation just as the tribals of Orissa. Forest produce which fulfils the tribals’ food, domestic and consumption requirements like fodder, fuel wood, housing, medicinal needs is the main source of income though the collection of NTFP gets destroyed as a result of mining activity. Water for drinking, domestic purposes and irrigation is diverted to serve the needs of the industry.

DESTRUCTION TO SOCIAL SYSTEM

One of the major risks of forced displacement is the fracture of the social fabric. Communities are torn apart and family members can be separated from each other. As a result, the loss of what constitutes their social capital leads to serious decline in people’s

power to face their new situation. This has long-term consequences on the displaced population. There is a severe strain on the social system as tribal communities follow very distinct social practices which get eroded due to the intrusion of non tribal communities. Social evils like dowry, alcoholism, wife battering, beggary, destitution, etc., which do not exist in tribal society get introduced by non-tribals. The destruction of their social system also threatens the displaced tribal population as they slip into lower socio-economic status relative to their local areas. Such marginalization is accompanied by a loss in self-esteem, especially when the displaced become “outsiders” and “newcomers” in host communities.

LOSS OF RELIGIOUS AND CULTURAL IDENTITY

The tribal’s religious and cultural practices are affected badly due to mining projects. The aesthetic cultural practices of the tribal community are completely under threat. With the degeneration of association from nature has originated the degeneration in cultural values, ceremonies and social celebrations and common property management practices. Festivals have lost their significance as association is with mine-pits and not forests. The deities of the tribals, sacred groves, hills and caves, traditional forms of tribal folklore and wisdom are also greatly affected, along with the degradation in their oral and traditional law and order systems that ensure protection of forests and community relationships.

HEALTH PROBLEMS

Health problems associated with displacement are well documented. The already marginal health status of tribal people is worsened by the stress and trauma of involuntary displacement. Recurring problems are reported with resettled populations not gaining access to safe potable water and safe sewage; increased diarrhoea, dysentery and epidemic infections. The health impacts fall disproportionately on infants, children, expecting mothers and the elderly. For example, due to the mining and processing of uranium in their area, the tribal people and others living at Jaduguda and nearby villages have become the immediate victims of the hazards of radioactivity. They are

experiencing a slow, agonizing death due to radiation and contamination of their environment. Life-giving resources such as air, water, animals, fishes, plants, etc, have been affected. Known and unknown diseases have spread into the villages ringing the knell of death (Areeparampil, 1993).

STATUS OF TRIBAL WOMEN

Women hold a respectable position in tribal societies and there is no evidence of harassment of women in traditional practices. However, tribal women in India were most adversely affected due to mining. The loss of authority and right was compounded by the breakup of families, weakening of kinship ties, loss of the security and insurance created by family and kinship relationships. They were severely affected socially, economically and in health. Besides, women would have to walk longer distances for gathering food and fuel wood as the forest would be cut down for mining. Women are the first victims of food insufficiency leading to serious health problems. Women are often thrown out of their economic role when land is alienated for mining. Any employment provided by companies is rarely being given to women. They are forced to give up their life of dignity for performing menial tasks in the industrial townships. Any compensation or skills training is given to the men in the displaced villages and not to the women. Tribal women suffer from an increase in domestic violence as their productive activities in farm work, kitchen gardens, and the collection and sale of minor forest produce and other cottage industries decreases or ceases entirely. Women are no longer productive contributors to their households, and lose social status within the community where they once held recognized roles. The authority and right they enjoyed in decision-making as income earners is weakened. With the shift from traditional to modern lifestyle, the women find it extremely difficult to adapt and face severe social and cultural exploitation.

ILLEGITIMISATION AND POLITICAL UNREST

Encroachment on to forest lands after displacement make the tribals criminals in the eyes of the law. Displaced tribals are not given any alternate land or are given land unfit for cultivation, forcing them to

cut down fresh patches of forests. They face constant harassment from the forest department either in the form of extortion of money or by arrest and criminal proceedings. The poor tribal is accused of destroying the forest through podu cultivation, while the government sanctions the cutting down of large tracts of forest lands in tribal areas for mining companies.

Politically, the tribal area in the Eastern Ghats is already disturbed due to the presence of extremist forces. Exploitation and displacement of tribals by the state would only lead to tribals joining militant groups and taking up arms. Mining regions in the country like Jharkhand, Chattisgarh, the north east and Orissa are already facing serious problems of unrest as a result of mining.

REHABILITATION AND RESETTLEMENT POLICIES IN INDIA

The content of any national policy for resettlement and rehabilitation has to be considered primarily from the perspective of those communities who suffer the brunt of displacement and face the terrible risks of getting even poorer. Till now, India as a whole has not had a national rehabilitation law or policy. Several states and some public sector companies have adopted their own policies for displacement and resettlement.

The Indian government began the policy drafting process only in 1985 when the National Commission for Scheduled Castes and Scheduled Tribes indicated that about 40 per cent of the DPs/PAPs were tribals. The Central Ministry of Welfare appointed a committee to prepare a rehabilitation policy for tribal DPs. However, the committee said, correctly, that the policy should cover all the DPs, not tribal's alone, that rehabilitation should be integral to every project above a certain size in the public as well as private sectors, and that undertaking rehabilitation must be binding on the state and the project implementing agencies (GOI, 1985). Policy formulation took a new turn in 1993 when in the wake of the World Bank withdrawal from the Sardar Sarovar project on the Narmada, the Ministry of Rural Development prepared a draft, revised it in 1994 and again in 1998. It was finalized in 2003 and published in 2004.

Though most rehabilitation policies and laws were probably prompted by the World Bank that funds

many projects of the agencies formulating them, India's civil society has also played an active role in the development of these policies. The following principles emerged from that broad public debate:

1. Minimize displacement
2. People's livelihood should become the fundamental consideration in all decisions about displacement.
3. The public purpose should be defined in a restrictive manner as public interest.
4. No democratic society can accept a decision without the participation of the affected persons.
5. The policy should recognize the historically established rights of the tribal and rural communities over natural resources and their sustenance.
6. The principle of compensation should be replacement value and not the market value or present depreciated value.
7. Even if the principle is accepted that DPs/PAPs should receive a share in the benefits of projects that displace them.
8. A policy has to have a positive tribal/Dalit/gender bias and should ensure that their special needs are met and their marginalization is prevented.
9. Regional planning is required to avoid multiple displacements.
10. Rehabilitation is a right of the DPs so the project that displaces them has a duty to ensure it. It may delegate its implementation to someone else, it may take the form of land for land, but the people's right is sacred.
11. A policy is not legally binding. So there should be a new law based on its principles (Fernandes and Paranjpye, 1997: 22-30).

However, the states have failed to provide adequate compensation for land and house, and basic amenities such as water, schools, hospitals and employment opportunities for landless labour. The common property resources of the people in the tribal areas are not valued in the right perspective, and the titles of the house plots have not been made available to the displaced. Moreover, traditional rights are never given importance at the time of

deciding compensation, and there has been failure to provide land for land and subsistence allowance during transition periods. There has been no public hearing or open discussion with the affected people before they were displaced. Besides, social security based on kinship relations has never been taken into account while rehabilitating and resettling the displaced and affected people. There were neither selective consultancies nor consultations made with the villagers and local NGOs.

On the whole, it is found that everywhere the affected population is under-estimated and not paid proper attention to by the project which takes away their land and thereby their livelihood. Experience has proved that rehabilitation and resettlement is always second in priority to the construction and execution of the project. Some key reasons why resettlement projects fail to achieve their own stated goals are:

- (a) Weak implementing institutions. These lack a clear policy mandate, organizational capacity, and professional social engineering skills. This relates to a lack of commitment to the resettlement aspect of the broader development project, and is correspondingly often coupled with an authoritarian approach towards the management of settlement.
- (b) The complexities inherent in the resettlement process. Weak implementing institutions are even less able to deal with this complexity, and often respond in a simplistic, authoritarian manner.
- (c) *Resistance*: Weak institutions and the complexities of the resettlement process tend to give rise to resistance, which depending on its trajectory can result in project capacity becoming even more compromised, and failure even more likely

CONCLUSION

To sum up, mining has become one of the most important sources for the nation's development. It is recorded that it earned ₹ 59509 crores from mineral production per annum. This resulted in rapid expansions of mining activities and hence, over exploitation of natural resources. Ironically, most of the mineral resources are located in tribal lands and the forests. Thus, mines have had an

impact on forest-dependent tribals the most. The greatest impact of displacement due to mining has been the transformation of tribals from a close association and symbiosis with nature to culturally and ecologically degraded communities. The situation in these areas are already disturbing, with massive mining leading to the displacement of tribals, destruction of their livelihood support system including forests and water sources, large scale air and water pollution, and destruction of socio-cultural life through massive influx of outsiders. Besides, the R&R Act, 2007, GOI is inadequate to safeguard the economic, cultural and social interests and identities of the tribal people. This has strongly affected the mindset of the tribal people. Undoubtedly, mining induced displacement has brought a drastic change in socio-economic and cultural life of the tribal people, which provide symbolic meaning to their existence, social control, and interaction. Subsequently, it also has resulted in emergence of many revolutionary movements in tribal areas which act as counterproductive in nation building process. Therefore, there is an urgent need for re-examining the rehabilitation project by considering the people's socio-economic and cultural needs and immediate attentions are required from corporate sectors to provide basic needs of the displaced people who sacrificed for the growth of the industry. Such initiatives will help in reviving the relationship between the tribal people and the state from a contractual type to a symbiotic type. Considering the fact, it is desirable to rethink and reformulate our policy for a justified distribution of development benefits and to protect the due share of the poor tribal's. Especially separate set of development measures are needed for tribes who mostly depend on their land and forest resources. In the wake of unrest problems, there is more need to enlist people's participation by creating employment opportunities and income generation activities through industry and other service sectors.

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