



Socio-Economic Impacts of Mining on Local Livelihoods in India Issues and Challenges

KEYWORDS

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INTRODUCTION :

India is a mineral-rich country. It has a vast geological potential of over 20,000 known mineral deposits, and is in the top ranks in production of some key minerals such as coal, iron ore, chromite and bauxite. According to the Geological Survey of India (GSI), the national exploring agency, the country is yet to tap its complete potential: it has huge reserves of important minerals awaiting exploration and exploitation. Unfortunately for India, almost all its minerals are in the same regions that hold its greenest forests and most abundant river systems. These lands are also largely inhabited by India's poorest and most marginalized people – the scheduled tribes and scheduled castes – who depend on the very same forests and watersheds for their survival. Mining in India, therefore, is not a simple 'dig and sell' proposition as it is made out to be by industry. It is, in fact, a highly complex socio-economic and environmental challenge: at stake are natural resources as well as people – forests, wildlife, water, environmental quality and livelihoods. The issue at hand requires balancing the imperatives of industrialization on one hand and the ecological and livelihood security of millions on the other. It is also about the policies, norms, procedures and institutions that must be established to ensure that mining is conducted – as far as possible – in an environmentally and socially acceptable manner. It is about writing and implementing new 'environmental and social contracts' to ensure that mining not only does the least damage to ecology and environment, but also contributes to the social and economic development of the areas where it is undertaken.

Some authors argue that mining and poverty are very much interlinked (see for example Bushran (2008), who shows that 60% of mining operations occur in the most developmentally 'backward' of Indian Districts), but Hilson (2002) reminds us that there are also positive livelihood impacts. Quarrying is an important sector to many developing country economies and brings employment, economic and development benefits at both a local and national level. Indeed, Hilson (2002) shows how for many migrant workers, income from quarrying and mining provides an important source of livelihood at times of the year where agriculture or livestock provide little return. International companies are also under pressure to provide not only suitable working conditions for employees, but also training and skills development, which can provide new employment opportunities. However, Hilson (2002) and Chakravorty (2001) both note that there is a significant difference between small and informal quarries compared with larger scale more regulated quarrying enterprises. It is often the smaller enterprises, reliant on smaller workforces, manual techniques and smaller profit margins that do not provide worker insurance schemes or medical benefits, and where migrant labour may be exploited. None the less is

it the sheer scale of numbers of smaller and artisanal scale quarries that cumulatively have just as significant impact on the landscape, the native vegetation and the socio-economic context, as the larger enterprises.

OBJECTIVES:

1. To protect public health and safety or make the mine site safe for surrounding habitat.
2. To repair environmental damage and ensure there is no future pollution and improve aesthetics of area as far as possible.
3. To identify the socio-economic effects of mining in India, including GDP, employment and infrastructure development, and local/regional impacts
4. To assess the impact of government policy and regulations on investment in the mining sector.

METHODOLOGY:

Research Design –On the basis of fundamental Objectives of research our study is a type of Descriptive Research :-Descriptive research also known as statistical research, Method of data collection Secondary Data:-Large amount of secondary data is available in the forms of articles, manuals and previously conducted researchers on the similar topic. Also the data the gathered will help in identifying key parameters to examine through further exploration and thus will help in defining the Objectives.

Mining and Poverty:

Across the world, the mining industry has been hard-selling dreams of development, employment and growth. It has consistently tried to project a pro-people image by promoting the idea that mining will unleash growth in backward areas and will pull the indigenous communities into the 'mainstream', thereby improving their lives and livelihoods. But has it really done so? At the macro level, things appear to be different. States like Jharkhand, Chhattisgarh and Orissa that have a high level of dependence on mineral resources demonstrate low per capita incomes compared to states, which do not depend completely on their mineral wealth (examples are Tamil Nadu, Maharashtra and Gujarat). The mineral dependent states also have higher levels of poverty, lower growth rates and higher levels of mortality, malnutrition and morbidity. India is not the only country where mining is linked with poverty and poor development outcomes. In most nations of the world, a high level of mineral dependence is associated with retarded economic performance.

Today across the mineral belt of the country, people are protesting against mining. They don't want to give their land for mining. Apart from false promise of development, one of the major reasons for this is that mining has the worst track record as far rehabilitation and resettlement

(R&R) is concerned. To start with, there are no reliable figures on how many people have been displaced by mining. There are estimates available for the period 1950 to 1991, which show that of all the developmental projects, mining has displaced the second highest number of people - around 25.5 lakh people. More importantly, not even 25 per cent of these displaced have been resettled. Of all the people displaced by mining, about 52 per cent were tribals. Mining induced displacement and resettlement has therefore created a pattern of "gross violation of human rights," and "enormous trauma in the country". It is important to recognize the protests of people, against mining, for what they are: people in the mineral rich areas of the country are not willing to give up their land for mining. They do not believe that mining is going to improve their lot or add to the development of their regions. A history of poor compensation and poorer R&R has created an atmosphere of acute distrust. People do not trust the government and businesses, who they believe are hand-in-glove. And they are not far from the truth: the current paradigm of R&R is flawed and ensures nothing but impoverishment and social disruption.

Mining and Livelihood:

A Conceptual Framework The conventional view on mining sees mineral reserves that can be mined profitably as part of a country's stock of natural capital, along with agricultural land, forests and other natural resources (Davis and Tilton, 2005). It was widely assumed that countries that possess rich mineral deposits are fortunate. However, over the last few decades, a more negative view of mining has emerged, that questions the positive relationship between mineral extraction and economic development (Davis and Tilton, 2005). Mining profoundly impacts local communities in the form of jobs, migrant workers, land, water, air and noise, loss of wildlife habitat, increased tax revenue, etc. The argument is that the impact of mining on the livelihoods of the local communities is largely neglected. Often, all the benefits accrue to the mining industry and its work-force, depriving the rest of the population in the locality. This population bears only the costs, while the provision of benefit is lopsided.

A livelihood is often conceptualized as "incomes in cash and in kind: as well as the social institutions (kin, family, compound, village), gender relations, and property rights required to support and sustain a given standard of living" (Ellis 1998, quoted in Chimhowu and Hulme, 2006). This includes the accessibility of, and benefits derived from, public services like education, health, roads, water and related infrastructure. Livelihood approaches involve a conceptual shift from analyzing rural people as smallholder farmers to a much broader understanding (Murray, 2002, quoted in Chimhowu and Hulme, 2006). Several frameworks have been proposed for the analysis of livelihoods. They include the Sustainable Livelihoods Framework (SLF) (Carney, 1998, 1999; Scoones, 1998), the Framework for Thinking about Diverse Rural Livelihoods (Ellis 2000), Capitals and Capabilities Framework of Bebbington (1999), and the United Nations Development Programme's (UNDP, 1999) Sustainable Livelihoods Diamond. These frameworks have different emphases, rather than fundamental differences. They all attempt to integrate assets, constraints and human capabilities in a logical and comprehensive manner to analyze the status, form, nature and condition of livelihoods over space and time (Chimhowu and Hulme, 2006). Among these frameworks, the SLF has been the most popular, partly because of its robust analytical ability and also because of its widespread promotion by donor agencies (Chimhowu and Hulme, 2006).

Studies show that between 1947 and 2000 such projects have caused some 50 to 60 million DP/PAP (Fernandes 2004: 1192). Studies also show that most of the displaced, project-affected persons are from assetless rural poor classes. According to one estimate 55.16% of them are tribals (www.tribal.nic.in) but some others keep it at 40% (Fernandes and Bharali 2006: 8). This is also true in case of most of the projects. For the Hirakud dam and the Rourkela Steel plant in Orissa about 2,25,578 acres of mostly tribal land was acquired (Baboo 1992, Srinivasan 1990: 134). As a result, of Orissa's 16 lakh DP/PAP 1951-1995, 42% are tribals (Fernandes and Asif 1997: 112) while the State has a tribal population of 22.1% (Registrar General and Census Commissioner 2001: Census CD). In Andhra Pradesh 30.19% of the total DP/PAP are tribals (Fernandes et al 2001: 85) while their proportion in the State is 6.6% (Registrar General and Census Commissioner 2001: Census CD). The situation is worse in the Northeast. In Assam out of 19,09,368 lakh DP/PAP 50% are tribals (Fernandes and Bharali 2006: 108) while the State has a tribal population of 12.4% only (Registrar General and Census Commissioner 2001: Census CD).

Social and economic impacts:

Mining can impact local communities both positively and negatively. While positive impacts such as employment and community development projects are important, they do not off-set the potential negatives.

Mining can negatively affect people by:

- forcing them from their homes and land
- preventing them from accessing clean land and water
- impacting on their health and livelihoods
- causing divisions in communities over who benefits from the mine and who doesn't
- changing the social dynamics of a community
- exposing them to harassment by mine or government security

These impacts are exacerbated when local people aren't consulted and are given no information about a planned mine. Even worse is when people are not given a say on whether or not a mine should even be developed. The potential benefits that mining brings to a community can be undermined if secrecy surrounds the payment of mining taxes to the government or the benefits shared at the local level.

The other key imperative is the impact mining exercises over society and economics. Is mining increasing poverty? Most people in India's mineral-rich states say so, and macro-statistics support this contention. States like Jharkhand, Chhattisgarh and Orissa, having a high level of dependence on mineral resources, exhibit lower per capita incomes, greater poverty, lower growth rates and higher levels of mortality, malnutrition and morbidity. District-level analysis bears out this assertion. The mineral-rich districts of the country are also some of the poorest and most underdeveloped in India. Keonjhar, which produces one-fifth of India's iron ore, is ranked 24th out of the 30 districts of Orissa in the Human Development Index (HDI). Gulbarga, the largest limestone producer in India, is second last in Karnataka in HDI. Koraput, which produces more than 40 per cent of the nation's bauxite, ranks 27th out of Orissa's 30 districts in HDI.

Mining's perpetration of poverty instead of prosperity has a lot to do with the lack of policies and systems for distributing the benefits of mining and the way land acquisition,

resettlement and rehabilitation have been managed over the years. The performance of India's major mineral-bearing states in managing land acquisition and displacement can be summed up in one word: dismal. People deprived of their land 50 years ago due to mining are still waiting for their compensation. Some have been displaced more than once. Existing resettlement and rehabilitation (R&R) policies in the country do not recognize the right of the people to say 'no' to a project. They do not acknowledge the land-for-land principle; nor do they believe in sharing the benefits of a project with the project-affected people. Not only is compensation fixed arbitrarily (under-financing of R&R is a chronic problem), almost no effort is made towards restoration of incomes and income-earning opportunities of the affected people. Numerous case studies suggest that the majority who have been displaced, now find themselves worse off.

Women are employed in secondary activities such as cutting, sorting, quarrying and loading and unloading. Constant contact with dust and pollution and indirectly through contamination of water, air, etc cause severe health hazards to the women mineworkers. As majority of the women workers are contract labourers, and paid on a daily wage basis there is no economic security or compensation paid due to loss of workdays on account of health problems. Meager or no compensation is given during pregnancy period that puts a strain on incomes and health. Even during pregnancy women have to work in hazardous conditions amidst noise, air pollution that have adverse affects on their offsprings. The work conditions, work timings, leave facilities, etc have significant impact on women's health. Children are also unsafe and indirectly affected right from conception and birth as women are forced to take their children to the mining areas and expose them to high levels of dust, pollution, mine explosives and accidents.

The women suffer from several occupational illnesses such as respiratory problems, silicosis, tuberculosis, leukemia, asbestosis, arthritis, etc. Infant mortality rates have increased and the reproductive health of women has reduced which has given rise to related social problems. Lack of proper illumination, safety nets and equipment causes severe strain to women workers' health. For example, in the Chromite mines of Orissa, the women complained of several health problems. The regular women workers, who are very few in number, were paid a meager Rs.10 per month for health benefits. Compensation for pregnant women was somewhere between Rs.2000-Rs.3000 if she is directly employed by the company, while the contractors pay a paltry Rs.500 at their discretion. The mines are damp and any ingestion of chromium causes

gastrointestinal bleeding. Tuberculosis and asthma are common ailments. Hexavalent chromium is known to adversely affect women's health as it is teratogenic, causing birth defects in fetuses, embryo toxic, causes still birth, reduces fertility and is further excreted through breast milk.

CONCLUSIONS:

Mining cannot be sustainable as ore bodies are finite and non-renewable. Even the best-managed mines will have environmental impacts. These are some of the inevitability that we have to reconcile with. However, another undeniable fact is that humans have used minerals from time immemorial and will continue to do so in the near future. Our dependence on minerals is so great that we cannot wish away mining. Therefore, the issue is not whether mining should be undertaken or not but rather how it should take place. It is necessary that mining should be conducted in environmentally and socially acceptable manner so that it leads to least ecological damage and also contributes to social and economic development of the areas. Some of the new paradigm which mining companies need to keep in mind to make it more acceptable is to share the wealth generated by the mining with the local communities and to take people into confidence and seek their permission before initiating the mining operations. When people get the benefits from the project and are involved from the planning stage, they are more likely to be open to the project. There is an urgent need to codify detailed environmental management regulations for mining. Best practices such as simultaneous reclamation, collection and treatment of surface run-off, fugitive dust control, tailing waste management, etc should be adopted. There is also urgent need to enact laws to protect groundwater and water catchment from mining. The closure regulations should be made applicable for all minerals including fuel minerals and adequate financial surety and robust regulatory mechanism should be developed to ensure companies take responsibility for mine closure. An important thing to improve the environmental performance of the mine is to restructure and revamp the regulatory institutions. A strong monitoring and enforcement system is fundamental for ensuring environmental sustainability. There should be some strategies to eliminate illegal mining and to promote other income-generating activities like agriculture agro small-scale industries may reduce pressures on mining, thus helping to improve the social, economic and environment management of natural.

REFERENCE

1. National Mineral Policy, Report of the high level committee, Planning Commission, Government of India, December 2006 | | 2. Chandra Bhushan et al, 2005, Concrete Facts, The rating of Indian Cement Industry, Centre for Science and Environment, New Delhi. | | 3. Gary Gardner and Payal Sampat, 1998, Mind over Matter: Recasting the Role of Materials in Our Lives, Worldwatch Institute, Washington, DC, p. 18. | | 4. Waste and Overburden management in Mega opencast project – Problems & technical options, Director General of Mines Safety, Ministry of Labour Government of India | | 5. Irene Sosa. 2000. Mining and communities: An annotated bibliography. Prepared for Mining | Watch Canada as a supplement to the workshop "On the Ground Research". | | 6. Mallik, R.M. and Das, C.R. 2004. Access to Forest Resources and Livelihoods: Study of | Forest/NTFP Policies and Tribal Livelihoods. | | 7. Marchus, J.J., ed. 1997. Mining Environmental Handbook. | | 8. Kahama CG. Tanzania into the 21st century. Dar es Salaam: Tema Publishers Company Ltd; 1995. | | 9. Hilson G. Small-scale mining in Africa: tackling pressing environmental problems with improved strategy. Journal of Environment and Development 2002;11(2):149 e 74. | | 10. MEM. Africa mining: Tanzania mining policy, Ministry of Energy and Minerals. | | http://www.tanzania-online.gov.uk/ MiningPolicy.htm O; 2001. | | 11. Knight D. Tanzanian gold mine pollution causing deaths. | | http://www.afrol.com/news2001/tan005-env-goldmine.htm O; 2001. | | 12. Sumaye FT. A review of government activities for 2000/2001. Work plan for 2001/2002 and the estimates of expenditure of the Prime Minister's office for 2001/2002. | | http://www.tanzania.co.tz/speech.htm O; 2001. | | 13. Abandoned mines said gigantic problem, 2002, Website of Planet Ark, | | http://www.planetark.org/dailynewsstory.cfm/newsid/15969/story.htm. | | 14. Estimated by Centre for Science and Environment based on data from anon, 2001, Overview of Mining and Mineral industry, The Energy and Resources Institute, New Delhi and anon, 2006, Indian Mineral Yearbook, Indian Bureau of Mines, Nagpur.