ABSTRACT
This is absolutely true that the prosperity of the nation can be measured by means of per capita use of minerals. However, minerals are non-renewable resources and their exploitation is necessary for the growth and sustainable development. This is also true that the exploitation of minerals has certain untold issues which are required to be settled before adopting the scheme and as such the Rehabilitation and Resettlement aspect therefore becomes obviously the most important issue because it involves not only the sentiment of the people but also involves their lifestyle, culture as per the changed scenario.

Mining in India deserves due credit as it has supported the industrial growth in India but fact also remains that it has led to impacting the environment and social life of the community located nearby. The corporate social responsibility of mining industries has not been satisfactory. Although there are laws and regulations, amended time to time, effectively they have failed to protect from manipulation and exploitation of environment and social laws by mining industries. Enforcement of laws has of course led to compliance in certain areas but Corporate Social Responsibility is beyond compliance and seeks mining industries to undertake voluntary endeavours in order to minimize the adverse impacts on the environment and society. The biggest issue in the mining including the coal mining is the Rehabilitation programme for the displaced persons. Displaced people are required to be resettled and rehabilitated in a participative manner keeping in view their requirements, customs and life style.

For framing the rehabilitation and resettlement programme, two important factors such as (1) Human value with their socio-economic considerations & (2) the project economics must be taken into consideration. In the present paper the case of Tasra Coal Block (Chasnalla, Dhanbad) owned by SAIL has been discussed.

Key Words: Sustainable Development; Rehabilitation and Resettlement; Social Responsibility; Human Value; Project Economics

INTRODUCTION
Between 1950 and 1991, mining displaced about 2.6 million people -- not even 25 per cent of these displaced have been rehabilitated. About 52 per cent of these displaced were tribals. For every 1 per cent that mining contributes to India’s GDP, it displaces 3-4 times more people than all the development projects put together, Heldin et.al. 1994, WHO 1989.

Displacement of people in the development projects, like dams, irrigation projects, thermal power plants, railway lines, highways, mines are unavoidable, Hartman & Howard, 1992. Laying of railway lines, construction of highways, irrigation projects, etc generally require a narrow long stretch of land, whereas a thermal power plant or national park, etc need a limited area. There is scope of selecting suitable site for implementation of these developmental activities. Further requirement of land for these activities is for an unlimited time span. But construction of a mine is site specific i.e. based on occurrence of the mineral deposit. This is also true in the case of coal mining. However, the systematic mine planning involves a proper Rehabilitation & Resettlement (R & R) package for the Project Affected People (PAP). Displaced people are required to be resettled and rehabilitated in a particular manner keeping in view their
requirements, habits, customs and life style which altogether constitute their socio economic considerations.

The Tasra Coal Block was allocated to SAIL in Oct. 1995, and mining lease of 4.5 Sq km area was transferred from BCCL to ISP-SAIL (erstwhile IISCO), in 2002 for the development of captive mine. The total proved geological reserve of this block is estimated as 251.8 Million tones. In wake of the huge reserves, this block has been proposed for the development of open cast mine of 4.0 Million Tones Per Annum capacity.

Study Area

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. It was previously under BCCL. Steel Authority of India Ltd. (SAIL) proposed to exploit Tasra Block as captive mine by opencast working method to meet the demand of coking coal to different steel plants of the SAIL.

It covers an area of 4.5 km$^2$. The area is roughly defined by latitudes 23° 39’ 53.06” N to 23° 40’ 7.33” N and longitudes 86° 27’ 00.74” E to 86° 27’ 20.65” E. It is included in the survey of India Topo sheet no.73 I/6 and in Sheet No.8 of the geological map of Jharia Coal Field (JCF). Similarly the Chasnala block, part of which has been included in this Mining Plan also form part of India Topo sheet No 73I/6. Figure 1 shows the regional location of the Study area.

The area is located about 15 km from Jharia town and about 23 km from Dhanbad town. Dhanbad - Sindri Road passes through its northern boundary. The nearest Railway station of Eastern Railway is at Sindri at about 5 km. The nearest airstrip is at Dhanbad. There is also a landing strip at Burnpur about 80 km away owned by the ISP-SAIL.

Total area of these mouzas being 5442.90 acre while the area falling under the project is 2066.43 acre. Nearly 3455 families including 2959 private house holds while 496 Govt. / Semi Govt. house holds along with infrastructure facilities such as Power station, HT / LT cables and underground lines for water supply, sewage telecommunications, etc. would be affected because of mining activity.

Social Impact Assessment Study

Present study has been conducted to understand the Social Impact Assessment (SIA) due to the project and formulation of a suitable and acceptable Resettlement & Rehabilitation (R & R) policy based on the valuation of the property of the entire Project Affected Persons (PAPs). The main objective of this study is:

1. To prepare demographic profile of all the areas under the project.
2. To assess socio-economic characteristics of the people.
3. To assess the nature of existing resources and means of livelihood.
4. To examine possible impact of the project on local population due to their displacement.
5. To evaluate the property of the Project Affected People (PAP) &rea
6. To formulate guidelines for the effective R & R scheme

Basic data pertaining to population, SC, ST, education facilities, literacy, basic amenities and main workers, marginal workers, non-workers by sex etc., has been collected from the census book, for all the villages and the urban area. Field survey has also been carried out on different aspects of socio-economic dimensions indicators to know the people’s perception on the Tasra Mining operations and to determine the quality of life of the people living in the area.

Rehabilitation & Resettlement Scheme

This scheme has been followed as per the Coal India Ltd. Policy and therefore after examining several possibilities, the following schemes have been considered:
Case Study

Fig. 1: Location Map of the Area.

Persons from Whom Land is Acquired
a. Provision for monitory compensation (as per the prevailing legal norms) against the land acquired from such persons.
b. In addition to above, employment against land would be considered for entitled looser meeting the eligibility criteria.
c. In case, if it is not possible to offer employment, one time grant in cash in lieu of employment against acquisition of land. However, the quantum of grant would be on the basis of pro-rata basis.

Persons whose homestead is acquired
a. Alternate house site (plot) per family would be allotted.
b. Family displaced with their cattle would be given financial assistance for construction of cattle shed.
c. Each displaced would be given one time financial assistance for shifting of family, their belongings and cattle.
d. Each displaced trader or self employed person, rural artisan would be given one time financial assistance for construction of working shed/shop.
e. Each affected family would get subsistence allowance for a period of one year.
f. The organization would take care of peripheral development under the Corporate Social Responsibility (CSR).

Sharecroppers Land Lessee, Tenants, Daily Wage labourers
a. The organization would assist project affected persons to establish self employment through the provision of infrastructure, petty contracts or formation of cooperative...
Or Jobs with contractor would be persuaded to eligible project affected persons on preferential basis wherever feasible.

**Land Less Tribal**

a. The organization would assist project affected persons to establish self employment through the provision of infrastructure, petty contracts or formation of cooperatives

b. 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.

**Vulnerable People**

As a social obligation the organization would look into the vulnerable people for affected area. The relevant programme for women and vulnerable persons would be made under CSR (Corporate Social Responsibility) and efforts would be made to provide opportunities for earning their livelihood, Crickmer et.al.,1981 & Merritt, 1986.

In the case of entire population of the Mouza / Village / area inhabited by a particular community, the organization would try to resettle them en-mass in a compact area to the best possible extent, so that the cultural relation (social harmony) amongst the shifted families remain intact.

**Community Facilities**

Community consist of living beings, men, women, children etc. In order to have proper care of the persons living in the community, certain basic facilities and infrastructure are required to be taken care in order to provide the local inhabitants some comforts and social harmony. Keeping this important aspect in mind, the organization would provide the following to the resettlement site:

- Schools
- Roads with street lights
- Pucca Drains
- Tube Well for Drinking Water
- Community Centre
- Worship Place
- Dispensary
- Club
- Playground

**Cost Analysis**

One time cost analysis for the R & R programme seems to be a very difficult task, however efforts can be made to cover the maximum possible aspects at a given point of time. Therefore, at this juncture, cost towards the entire scheme including Infrastructure Development such as Residential Building, Community Building, Colony Road, Sewage System and water supply, Relocation cost including Rehabilitation and Resettlement scheme would be around Rs. 250 – 300 crores. This cost does not include the cost of the land acquisition.

**Changes In Socio Economic Status**

The following changes in socio-economic status are expected to take place with opening of mining activities:

i) The project would have a strong positive employment and income effect, both direct as well as indirect. Migrant – non-migrant ratio shall shift towards migrant side because a number of people shall migrate towards the central region of study circle in the years to come. This would happen because of better employment opportunities due to this project. But this effect has not been expected to be so strong because of the proximity of Jharia, Dhanbad and Bokaro city with its massive employment opportunities.

ii) The project would have positive impact on consumption behaviour by way of raising average consumption and income through multiplier effect.
Case Study

iii) The project would bring about changes in the pattern of demand from food to non-food items as sufficient income is generated.

iv) With increase in migration level there would be a chance of dilution of culture in the region whereas the people located in the project area and in close vicinity, might enjoy positive changes in life style and better quality of life.

v) People perceive that the project would help in the development of various social infrastructures.

vi) People also believe that the Project will have well planned structure & infrastructure facilities along with community care.

Conclusions

Development in India has been based on the principle of the welfare state, Bhattacharya, 2004. Resettlement & Rehabilitation (R & R) issues are very sensitive as these involve human sentiments. Success of an R & R programme, therefore, depends on active participation of three agencies / stakeholders – the Government, the Project Implementation Authority (PIA) and the Project Affected Persons (PAPs). In the process the PAPs are the most important stakeholders and their participation goes a long way in successful implementation of the Rehabilitation Action Plan (RAP). It is believed that they need to be informed and also be consulted on matters of importance to the project, and their entitlement of compensation and choice for resettlement options. Accordingly, along with improving the economic efficiency of the country, priority is given to the well being of the people affected during implementation of the project. Many novel activities have been taken up in this project and the outcome till date are reasonably satisfactory. The lessons learnt in have to go a long way in enhancing the capability of the Organisation to manage the social and environmental impacts of an opencast coal mining project. This scheme has been followed as per the Coal India Ltd. Policy and seems to be quite satisfactory. Hence, the impact of the project on the pattern of demand can be reasonably predicted as a shift from food to non-food items i.e., a consumer behaviour which may closely follow the Engel law. This is not a bad indication provided considerable income is earned by them; otherwise, if the shift is a substitution of necessary food requirements then it is not desirable in true socio-economic sense.

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