ABSTRACT

Displacement or up-root of settled villages is a common as well as hanging problem in any coal mining area and obviously treated as an age-old problem of coal mining area. Raniganj also faces all the related issues due to coal mining activities involving environmental as well as socio-economic degradation. Resettlement is a term used to describe the movement of individuals or groups from one location to other, although the term can refer to voluntary or involuntary human migration, it is often a euphemism for forced migration due to any such activities. The increasing demand for Coal requires an expansion and speeding up of coal exploration, production and processing in the country. A great ongoing ‘social challenge’ for the coal industry is the problem of Mining-Induced Displacement and Resettlement in the present study area. Due to exploration activities, almost every day all the scheduled villages in the study area are facing new environmental as well as socio-cultural problems. However, out of total villages, due to mining hazards, local administration has been proposed to re-settle 15 villages as rehabilitation in phased manner for expansion of Sonepur Bazari Open Cast Project which is located in Raniganj Coalfield. 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. Eastern Coalfield Limited (ECL) is taking special care to provide generous package of compensation to project affected persons. But the difficulty lies in the fact that not only do the village people lose their houses, but they are also deprived of the land and natural resources that constituted their economic survival base. The natural resources are non-formal sources of income which are rarely recognized or documented, and hence rarely compensated for. So, lots of environmental and social problems are generated due to such activities knowingly or un-knowingly. Other concerns due to mining-induced displacement and resettlement are some of the demographic, socio-economic and cultural problems including the changes in population dynamics, health impacts, addictions, economic disparity and frustration. All these are affecting not only economic, but social, moral and cultural degradation, which are reframing the existing lifestyle in holistic manner. The total attempt has been prompted exclusively by primary observation and inferences have been taken by explanatory and analytical approach through modern presentation techniques.

KEY WORDS: Mining Induced Displacement and Resettlement, Open cast project, ECL

INTRODUCTION
Coal mining areas in India and abroad offer not only favourable and positive effects on society and economy but at the same time cause some unfavourable and degraded impact on settled economy, society and culture (Singh, 2009). In the present study, stress is given to this problem in the coal mining areas in the Raniganj coal field areas of West Bengal. Eastern Coalfield Limited (ECL) is facing increasing demand of power grade coal because of superior grade, long flame and other consumer friendly characteristics (Gee, 1932). To meet the growing demand of coal, especially in power sector, ECL has planned to increase
its production capacity which ultimately results in expansion of its existing coal mining project areas for meeting the increasing demands which in turn results the shifting of settled villages, farmlands and other socio-cultural establishments. For the proper observation of the present problem, Sonepur-Bazari Open Cast Project has been taken into consideration which is not only a significant open cast mine but has marked influence on the local and regional economy also. Open cast mining techniques remove soil and rock from the top of the coal by blasting and other mining processes, followed by removal using Dragline and Dump trucks (Lahiri-Dutta, 1999). There are 15 villages in the core zone of Sonepur-Bazari which are affected by those activities of coal mining. Therefore, displacement of villages along with their long standing economic, social, religious, and cultural activities is inevitable. When coal occurs in land held traditionally by indigenous people, mining gives rise to question of social justice. Displacement has an undermining influence on social bonds and cultural roots of the entire community, thus leads to Social problems.

OBJECTIVES AND METHODS OF INVESTIGATION

The major objectives of the present research are to assign the intensity of coal mining activities in the study area and their effects and consequent evaluation on the man, economy and society in the region. The primary objectives are:

• To observe the extensity and intensity of the resultant problems due to mining activities and to examine the problems encountered due to displacement as a result of mining activities;
• To review the compensation package provided by Eastern Coalfield Limited to project affected persons and also to examine the physio-cultural environs in the displaced areas,
• To review the facilities provided in the displaced areas in comparison to previous area and problems encountered due to displacement.

METHODOLOGY

The present paper courses a detailed database and information. Such collection of database considers secondary data as well as primary data at selected points. The total work has been divided into three phrases—

(i) Pre field work phase-This includes a preliminary study of the area through various maps and study of the existing literature on the region.
(ii) Field work- This part has been computed mainly through observing the study area, contacting the villagers and Coal mine officials.
(iii) Post field work-This involves processing of data collected from various sources and preparation of maps and diagrams on the basis of data collected. A wide range of quantitative techniques has been used to depict the problems of displacement.

REVIEW OF GENERAL LITERATURE

A considerable number of relevant literatures are available in India and abroad, but perfectly the discussions in the same bands for the present study are really very few. Tony Herbert and Kuntala Lahiri- Dutta in a paper entitled “Coal sector loans and Displacement of Indigenous Populations—Lessons from Jharkhand” dealt with the issues of displacement of the local communities as part of the Coal India mining project in Parej East in Jharkhand. This paper analyses the report of the World Bank’s inspection panel, which examined the complaints regarding the handling of resettlement and rehabilitation of project—affected persons by Coal India. M.M.Cernea (2006) has noted that risks to environment and risks to investors are paid attention but social risks often are ignored.

AREA SELECTED FOR THE STUDY

For the present study, Sonepur-Bazari Open Cast mining area has been selected and among a number of resettled villages, Hansdiha village has been selected for specific study. The selected project site is located in Eastern part of Raniganj Coalfield in Burdwan District of West Bengal bounded between Latitude 23°40’00”N & 23°43’06”N and Longitude 87°11’14”E and 87°17’42”E. Raniganj town is about 15 km towards west and Durgapur is about 19 km south east. Ukhra Railway Station on the Andal Sainthia line lies at a distance of 8 km on south west. There are 15 villages in the core zone of Sonepur-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.

FIG-1. LOCATION OF SONEPUR-BAZARI OPEN CAST PROJECT

Source: compiled from DPMS (SOI), W.B.District Census Handbook and Landuse Map of Raniganj Coalfield (CMPDLAsansol)
### Table 1, Displaced Villages with their present status.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the Villages</th>
<th>No. of Families</th>
<th>Population</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ruidaspara</td>
<td>64</td>
<td>200</td>
<td>Rehabilitated in 1996</td>
</tr>
<tr>
<td>2</td>
<td>Punjabidanga</td>
<td>119</td>
<td>317</td>
<td>Rehabilitated in 2000</td>
</tr>
<tr>
<td>3</td>
<td>Hansdhia</td>
<td>210</td>
<td>482</td>
<td>Rehabilitated in 2004</td>
</tr>
<tr>
<td>4</td>
<td>Bheladanga</td>
<td>94</td>
<td>212</td>
<td>Rehabilitated in 2006</td>
</tr>
<tr>
<td>5</td>
<td>Bhaluka</td>
<td>55</td>
<td>347</td>
<td>To be Rehabilitated within a year</td>
</tr>
<tr>
<td>6</td>
<td>Kuchberia</td>
<td>50</td>
<td>250</td>
<td>To be Rehabilitated within two years</td>
</tr>
<tr>
<td>7</td>
<td>Basabdanga</td>
<td>100</td>
<td>300</td>
<td>To be Rehabilitated within three years</td>
</tr>
<tr>
<td>8</td>
<td>Bandhaghat</td>
<td>30</td>
<td>80</td>
<td>To be Rehabilitated within three years</td>
</tr>
<tr>
<td>9</td>
<td>Sonepur</td>
<td>550</td>
<td>2158</td>
<td>To be Rehabilitated within three years</td>
</tr>
<tr>
<td>10</td>
<td>Arsula</td>
<td>100</td>
<td>300</td>
<td>To be Rehabilitated within three years</td>
</tr>
<tr>
<td>11</td>
<td>Bhatmura</td>
<td>130</td>
<td>500</td>
<td>To be Rehabilitated within eight years</td>
</tr>
<tr>
<td>12</td>
<td>Bazar</td>
<td>385</td>
<td>2409</td>
<td>To be Rehabilitated within eight years</td>
</tr>
<tr>
<td>13</td>
<td>Madhudanga</td>
<td>130</td>
<td>400</td>
<td>To be Rehabilitated within ten years</td>
</tr>
<tr>
<td>14</td>
<td>Nabagram</td>
<td>500</td>
<td>4643</td>
<td>To be Rehabilitated after ten years</td>
</tr>
<tr>
<td>15</td>
<td>Sankarpur</td>
<td>160</td>
<td>900</td>
<td>To be Rehabilitated after ten years</td>
</tr>
</tbody>
</table>

Source: Sonepur Bazari Area Office

### Fig-2: LOCATION OF VILLAGES WITHIN SONEPUR-BAZARI PROJECT

![Location of Villages within Sonepur-Bazari Project](image)

Source: Drawn by Researcher
RESULTS AND DISCUSSION

Out of 4 villages already rehabilitated, Hansdiha village has been selected for present purpose of study. Hansdiha was located in Pandaveswar block in Barddhaman District and was situated towards south at a distance of 400m from coal mine. In 2004, Hansdiha village was displaced to Hansdiha Rehabilitation site in Dahuka Mouza, Jamuria Block at a distance of 5 km. with a population of 482.

A primary survey was conducted to study socio-economic status and observe the problems encountered due to displacement. Following discussion states the comparative analysis of village infrastructure and other social and cultural status in the present rehabilitation site.

**TABLE 2, FACILITIES AVAILABLE AT HANSDIHA AND HANSDIHA REHABILITAION SITE-A COMPARISON**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Hansdiha</th>
<th>Hansdiha Rehab.Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearest Market</td>
<td>Haripur</td>
<td>3 km</td>
</tr>
<tr>
<td>Nearest Bus Stand</td>
<td>Sonepur</td>
<td>0.5 km</td>
</tr>
<tr>
<td>Nearest Post office</td>
<td>Sonepur</td>
<td>1.5 km</td>
</tr>
<tr>
<td>Nearest Hospital</td>
<td>Pandaveswar</td>
<td>7 km</td>
</tr>
</tbody>
</table>

Source: Primary Survey

**FIG. 3, LOCATION OF HANSDIHA VILLAGE (BEFORE AND AFTER DISPLACEMENT)**

Source: Drawn by Researcher
HOUSEHOLD INFRASTRUCTURE:
Before displacement, 85% households were kutcha, made of muddy walls and straw roof. ECL provided monetary compensation for building as per valuation to those who have their own residential land and provided Rs.88,000 for construction of house to landless villagers. So, after displacement, all households are pucca with some kutcha parts. Before displacement, 10% of households have no separate kitchen but after displacement 30% of household have no separate kitchen because previously they use firewood and coal for cooking which was a source of pollution. But, now they are using LPG which is not a source of pollution in their eyes. So, they prefer cooking in the living room.

CHANGING SCENARIO OF OCCUPATIONAL STRUCTURE:
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.

INCREASED INCOME LEVEL:
Before displacement, maximum limit of monthly income of population of the affected village was Rupees 2000-5000. But after displacement, the income level of population has been increased which is more than Rs.10,000 per family. This is because of the fact that cultivators and agricultural labourers are now employees in ECL.

WATER RESOURCE:
Though 6 tube wells and 4 wells are provided by ECL as compensation for 2 tube wells and 2 wells but the problem lies in--
(a) Most of time, Tube well remains damaged and not in usable condition.
(b) Quality of water in well is not satisfactory.
Pond with pucca ghat was promised during public hearing. As compensation of 6 ponds present in Hansdiha, only one pond is provided which is without pucca ghat. Water in this pond is of poor quality and this single pond is used for all purposes viz. bathing, cattle bathing, washing clothes, idol immersion and other religious activities by villagers.

FOREST RESOURCE:
The original Hansdiha village reported 6% of forest land out of total land area. The forest included trees of Mahua, Mango, Bamboo etc. Leaves and flowers of different trees were used as vegetables and their fruits are eaten. The forest was also a source of firewood for cooking. The loss of mahua tree was a big setback for the families. Mahua is used to make a local alcoholic drink which is of great importance to the indigenous people (Ahmad, 2006). Dori, the seeds of Mahua trees, would be crushed to get oil. In Hansdiha Rehabilitation site, there is no forest at all.

ANIMAL RESOURCE:
Villagers of Hansdiha practiced Livestock Farming. Their domestic animals include Cow, Goat, and Hen etc. Before rehabilitation, these animals used to graze in the nearby agricultural field, forest and grassland. But in Hansdiha rehabilitation Site, there are no forest, no grassland, and no agricultural field of their own. So, there is lack of space for grazing of domestic animals. Moreover, area of 100 sq. m. is insufficient for human residence and livestock rearing. Therefore, villagers have ceased the practice of livestock farming.

PROBLEM OF POSTAL COMMUNICATION
Before displacement, Postal communication was available to the villagers. But after displacement of villagers to Dahuka mouza, local political leaders renamed Hansdiha as “Dangalpara”. But villagers want “New Hansdiha” as their village name. In this regard, a petition is pending in Court and till now no name for this village is finalized. As a result, no facility of Postal Communication is available to the villagers. They have to contact Postmaster of Sonepur Post Office for any kind of letters, money orders, telegrams etc. in
their own interest. In this way, after 8 years of displacement, till now villagers have been suffering and fighting for their own village’s name.

**Weaker Social Bond:**
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 neighbours as they lived together since birth. At the time of displacement, the order of neighbourhood was not followed and as a result, social bond that existed between individuals are ruined. 29% of populations are happy with their new neighbours while 71% of population preferred their previous neighbours.

**Conversion of Joint Family into Nuclear Family:**
ECL provided 100 sq. m. land as residential space to each and every ward of land looser who attained age of 18 years. This type of compensation package encourages nuclear family.

**Religious Activities:**
There were 3 Temples in Hansdiha (a) Kali Temple (b) Durga Temple and(c) Mansha Temple. All these temples are shifted to Hansdiha Rehabilitation site. Maintenance and repairing of these temples are conducted by ECL. Different religious festivals are celebrated all throughout the season, but the villagers are facing multi-tier problems especially regarding the idol immersion during the dry season; because there is only one pond in the village and no river is located nearby. **No Burial ground and playground** were reported in Hansdiha Rehabilitation site. Lastly, villagers do not have Ration card but they all have Voter card.

**Conclusion and Suggestion**
Eastern Coalfield Limited (ECL) is taking special care to provide generous package of compensation to project affected persons. But the difficulty lies in the fact that not only do the village people lose their houses, but they are also deprived of the land and natural resources that constituted their economic survival base. The natural resources are non-formal sources of income which are neither recognized nor documented, and hence never compensated for (Herbert, 2004). Though villagers are economically benefited but are socially degraded due to Mining Induced Displacement and Resettlement. Mining Induced Displacement left their scars on project affected population.

**Acknowledgement**
I would like to express my indebtedness to the officers of Block Land and Land Reform Office, Pandaveswar Block, Burdwan district, for proving me plot wise landuse and land classification information of Hansdiha village before displacement. I wish to place on record my sincere thanks to Training Officer, Sonpur-Bazari Area, Eastern Coalfield Limited, for providing me information regarding resettlement and compensation Package and other useful data. I will be failing in my duty if I do not express my gratefulness to all my friends and classmates for their intelligent suggestions and helping me in collecting the useful data. Last, but not the least, this paper could not have been completed without the co-operation of the residents of the study area and thanks are also extended to them.

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