

Impact of Industrialization on Tribal Livelihood: A Case Study of Rourkela

**(A Thesis submitted for the partial fulfillment of
Master's Degree in Development Studies)**

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DECLARATION

I, hereby declare that I have completed my final year project on “**Impact of Industrialization on the Tribal Livelihood: A Case Study of Rourkela**” at National Institute of Technology, Rourkela, Odisha in the academic year 2013–2014. The information submitted here by me is true and original to the best of my knowledge.

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CERTIFICATE

This is to certify that the dissertation entitled, “Impact of Industrialization on Tribal Livelihood: A Case Study of Rourkela” submitted by Tushar Kapoor in partial fulfillment of the requirement for the degree of Master in Arts in Development Studies of the Department of Humanities and Social Sciences, National Institute of Technology, Rourkela, is an authentic work carried out by him under my supervision. To the best of my knowledge, the matter embodied in the dissertation has not been submitted to any other university/ institute for the award of any degree or diploma.

Dr. Ngamjahao Kipgen
(Research Supervisor)

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my project supervisor Dr. Ngamjahao. Kipgen, Assistant Professor, Department of Humanities and Social Sciences, National Institute of Technology, Rourkela for his guidance in writing this dissertation. I am thankful to him for devoting his time and stimulating discussions in spite of his busy schedule. I also convey my gratitude to the other faculty members for their inputs that enables me to understand the area of my study in depth. I am also thankful to all my classmates for their help during my fieldwork. I express my sincere gratitude to all the villagers who helped me in collecting the data without whose support my work would not have seen the light of the day.

TUSHAR KAPOOR

Abbreviations:

NGOs	Non-Government Organizations
RSP	Rourkela Steel Plant
Ha	Hectare
TEK	Traditional Ecological Knowledge
SAIL	Steel Authority of India Limited

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Abstract

As a result of Industrialization there is a rapid increase in the urban populace. This has resulted to various problems such as involuntary displacement of human populations, loss of traditional sustainable livelihoods and land holdings and increase in ecological imbalances in the region. With the pace of development there is a social cleavage – that is the rich are becoming richer and the poor are becoming poorer. This has posed serious threats to the urban population particularly the tribal people. Rourkela emerged as a highly modernized city resulting to large scale impact on the indigenous people in terms of livelihood and well-being. This study attempts to examine the impacts of industrialization on the livelihood of tribal people in and around Rourkela city.

Chapter – 1

1.1. Introduction and Literature Review

Industrialization is the period of social and economic change that transforms a human group from an agrarian society to an industrial one. It is the part of a wider modernization process, where the social and economic developments are closely related with technical innovation. It is the process in which a society or a country transforms itself from a primarily agricultural society into one based on the manufacturing of goods and services. It is the continual expanding of sophisticated technology designed to efficiently draw energy and raw material out of the environment and fashion them for human use. Due to Industrialization the tribal people and other vulnerable section of the population have been displaced from their traditional livelihood and their self-sustaining subsistence system of production. For instance, extensive mining activities in areas such as Panposh and Bonai sub-division of Sundargarh have destroyed dense forest and fertile agricultural lands, and the tribal are now dependent upon the unsustainable mining economy by employing themselves as daily wage workers (Cobden-Ramsay 1930).¹ When they fail to get work they migrate to the nearby Rourkela city as turnover and seasonal migrants. Working as contract labour of steel plant or as informal sector workers such as coolies, rickshaw puller, unskilled construction workers, domestic maids and the like (Meher 2003).²

Migration to the city has not very much helped to the workers to improve their standard of living rather it creates problem for their workers to meet their needs in township because when we compare the needs and requirement of township it is totally different from the village one the standard of living increases and the workers need to meet it so the migration also not help them so much (Prabhu 1961).³ And owing to Industrialization in South Gujarat the living condition of

¹ Cobden-Ramsay, Louis EB. Feudatory states of Orissa. Firma KLM, 1982.

² Rajkishor Meher. "The social and ecological effects of industrialisation in a tribal region: The case of the Rourkela Steel Plant." *Contributions to Indian Sociology* 37, no. 3 (2003): 429-457.

³ Pandarinath Prabhu. "Social effects of urbanization on the industrial-workers in Bombay." *Sociological Bulletin* 5, no. 1 (1956): 30-50.

the people of the Gujarat changes and the livelihood of the peoples of Gujarat changes from subsistence agriculture to contract labourer (Kapadia 1961).⁴

Agriculture and allied activities support the livelihood of nearly 70 percent of Indian rural population. However, in recent years, land based livelihoods of small and marginal farmers are increasingly becoming unsustainable as their land has failed to support their livelihoods (Oraon 2012).⁵ The rapid changes at the macro level that India witnessed since the early nineties has contributed to the instability of the livelihood system of the proper section of rural and tribal households. The emergence of industry and market economy has disturbed the age old tribal and nature relationship (Oraon 2012).⁶ The rapid changes at the macro level that India witnessed since the early nineties has contributed to the instability of the livelihood system of the proper section of both rural and urban household. While the benefits of the globalization process have largely accrued to the urban sectorial growth and the rural sector left behind. Slowdown in the agricultural growth and productivity changing cropping pattern increases in the distress migration, changes consumption pattern, among other have seriously undermined the food and livelihood sector of the poorer households (Hiremath 2007).⁷

The major steel town build in the wake of the second five year plan were to be ‘temples’ to India’s industrial future and secular ‘modernity’ but soon they were disrupted with ethnic and communal violence (Struempell 2008).⁸ While discussing the effect of displacement especially on tribal’s it is necessary to identify the risk involve in each development project and also to draw attention on the benefits over and above of compensation and rehabilitation (Mohanty 2011).⁹

⁴ K. M. Kapadia. “The growth of townships in south Gujarat-Maroli bazar.” *Sociological Bulletin* 10, no. 2 (1961): 69-87.

⁵See, Vijay Oraon. “Changing Pattern of Tribal Livelihoods: A Case Study in Sundargarh District, Odisha.” MA dissertation submitted to NIT Rourkela, 2012.

⁶ Vijay Oraon. Ibid., p.7

⁷ Hiremath, B. N. “The changing faces of rural livelihoods in India.” In National Civil Society Conference on What it takes to Eradicate Poverty, New Delhi, 2007, pp. 4-6.

⁸ Jonathan Parry, and Struempell Christian. “On the Desecration of Nehru's ‘Temples’: Bhilai and Rourkela Compared.” *Economic and Political Weekly* (2008): pp.47-57.

⁹ Rajashree Mohanty. “Impact of Development Project on the Displaced Tribals: A Case Study of a Development Project in Eastern India.” *Orissa Review* (2011).

Due to displacement many villages gradually get included in cities and urban people also migrate to villages transforming them in towns and it shows the impact in village people how they suffers and what problems they are going to face (Shah 2012).¹⁰ Adivasi today realized that the reserve army of labour created by this destruction has not gainfully employed by these regimes only a few get employment and the large majority alternatives between providing cheap labour and unemployment (Savyasaachi 2012).¹¹

In contrast to the manifold promises made to them regarding resettlement, rehabilitation and other benefits from the industrialization of the area around Rourkela, the displaced Adivasi families have lost their ancestral land and assets. The majority of them have been struggling for the past decades for proper resettlement, compensation and even basic amenities in the places to which they have been relocated. Many of them feel that their confidence in the political leaders, the administration and the management has been misused, and they have been cheated from the beginning to the end (*Sarini Occasional Papers* 2006).¹² Therefore, whatever has been done so far for the displaced people in the name of resettlement, compensation and rehabilitation has been insufficient, ineffective and in transparent (*Sarini Occasional Papers* 2010).¹³

1.2. Objective of the Study

1. To study the impact of Industrialization on the tribal ecology and livelihood.
2. To study the socio-economic impact of Industrialization on the tribal communities.

1.3. Profile of the Study Area

The study was conducted in the Rourkela region in Sundargarh district of Odisha. Sundargarh is one of the 30 districts of Odisha. It is located in the northern extremity of Odisha that lies between 21°32' and 22° 32' North latitudes and 83° 32' and 85° 22' East longitudes. Its total

¹⁰ A. M. Shah. "The Village in the City, the City in the Village." *Economic and Political Weekly* 47, no. 52 (2012): pp.17-19.

¹¹ Savyasaachi. "Struggles for adivasi Livelihood Reclaiming the foundational value of work" *Economic Political Weekly* XLVII, no. 31, (2012): pp. 27-31.

¹² *Sarini Occasional Papers*. "Rourkela and After", no. 5, (2006): 1-44.

¹³ "50 Years and More Struggle for Justice at Rourkela" Displaced Persons' Conference Organising Committee, Rourkela, and Orissa with support from ASHRA, Sarini and Adivasi-Koordination in Germany, no. 7 (2010): pp.2-48.

geographical area is 9, 71,200 Hectare. The population of the district is 2,080,664 out of which the tribals constitute around 51 %” (2011, Census).¹⁴

Sundargarh district was constituted on the 1st January, 1948 out of the two ex-States of Gangpur and Bonai, which merged with Odisha on that day. (*District Portal Sundargarh, Government of Odisha*).¹⁵ True to its name, this “beautiful” district of Sundargarh with dense forest cover area that is 4232.57 square kilometer which is about 43% of its total area and it is the second largest in accounting for 8.53% of state under forest cover. Numerous colorful tribes dotting its landscape and with abundant mining potential are bounded by Ranchi District of Jharkhand on the North, Raigarh district of Chattisgarh on the West and North-West, Jharsuguda, Sambalpur and Angul District of Odisha on the South and South-East and Singhbhum District of Jharkhand and Keonjhar District of Odisha on the east.

Sundargarh District is recognized as Industrial District in the geographical map of Odisha. Still then more than 60 per cent of the people earn their livelihood from agriculture and allied sector. Sundargarh District comes under North Western Plateau Zone as per the Agro-climatic zone of Odisha. Three Agricultural District like Sundargarh, Panposh, Bonai and two ADAO circle like Lephripada and Rajgangpur exist at present. Climate is hot and moist sub-humid in Sundargarh. Soil type is mixed with red and yellow soil. Out of 3, 13,000 Hectare cultivated land, 52 per cent is upland, 30 per cent is medium land and 18 per cent is low land. As paddy is the main crop, 75 per cent of land is covered with paddy during Kharif. Due to limited irrigation facilities, 24 per cent of land is irrigated during Kharif and 8 per cent of land is irrigated during Rabi. Normal rainfall of the District is 1422.4 mm, but there is deviation in receipt of rainfall pattern which is influencing crop product.”¹⁶

¹⁴ Sundargarh District census 2011.

<http://www.odisha.gov.in>

¹⁵ District Portal Sundargarh, Govt. of Odisha.

<http://www.odisha.gov.in/portal/dist.asp>

¹⁶see Sundargarh District profile - <http://sundargarh.nic.in/Agriculture.doc>

The land has been divided into three broad categories:

Table 1.1

(a) Total Cultivated area is 3, 13,000 Ha

High Land	Medium Land	Low Land
1,63,000 Ha.	95,000 Ha.	55,000 Ha.

Table 1.2

(b) Total Paddy Area: 2, 26,000 Ha.

High Land	Medium Land	Low Land
76,000 Ha.	95,000 Ha.	55,000 Ha.

Table 1.3

(c): Total Non-Paddy Area: 87,000 Ha.

High land	Medium Land	Low Land
39,000 Ha.	31,000 Ha.	17000 Ha.

1.4 Methodology of the Study

Study Area:

This is an exploratory study, with a focus on the objectives stated (see section 1.2). First-hand information was collected regarding impact of industrialization on tribal livelihood in the Rourkela region. I have selected R.S Colony (NIT back post), Construction colony (Tarapur) Labour colony, (Tarapur), Laltanki (Tarapur) for my study. From these localities, I have drawn samples from 100 households' altogether.

These selected villages are displaced as a result of industrialisation. This is the rationale for selecting these villages for my study.

Sampling:

Two types of samples are taken into account for my study. First, purposive sampling: this method was adopted in order to select the study areas. Second, random sampling: this was used for selecting the sample (respondents). Random samples have been taken as the number of households in a single village consists of more than 350 to 400. Therefore, I have used random sampling to collect data (100 households' altogether) for my study.

Source of Data:

For collecting the data, I used both primary and secondary sources. Primary data was collected by interviewing people of both rural and semi-urban household. For gathering quantitative data household survey was conducted using pre-tested schedules. The secondary data were collected from related articles from journals, government gazettes and published reports. I was also partly a participant observer though it was short duration of stay. This enhances my findings and enables me to connect the literature with the field that is to locate the text in context.

Household Survey:

I used random sampling in my household survey. Data was collected randomly from the household survey using questionnaires.

Interview:

Primarily, head of the households were interviewed to gather detail information regarding the family members. Moreover, some elders were also selectively interviewed in order to draw information concerning their opinion, condition and plights with the advent of industrialization.

Data Analysis:

Since my study involves both qualitative and quantitative data I used Microsoft Excel to interpret the quantitative data whereas, qualitative data were interpreted based on the information collected from field study through interview and observation.

Significance of the Study:

The central focus of the study is to highlight the impact of industrialization on tribal livelihood. This study will help us to know better how the tribal people sustain themselves in the pre-industrialization period and struggle to manage their livelihood with the in-roads of industrialization. This study highlights some of the problems faced by the tribal's as a result of the industrialization process – such as displacement and loss of agricultural lands. The present study reveals some of the flaws in the Rehabilitation and Resettlement (R&R) policies of the govt.

Chapter – 2

2.1 Analysis and Findings

In the era of globalization the question of sustainable livelihood has captured all the points of discussion. Various people have defined livelihood differently. Chambers and Conway (1992) define livelihood as:

A livelihood comprises the ability, assets and activities required for a means of living – a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities to the next generation; and contribute net benefits to other livelihoods at the local and global levels in the long and short terms. (IDS Discussion Paper No. 296)

In present days the issue of livelihood has become a burning point topic in the context of tribal communities. Since centuries the tribal communities who have been living in and around the forest, practicing hunting and gathering activities, and shifting cultivation have faced difficulties in their survival.

Traditionally they depend upon forest resources for their livelihood. Their dependence on forest is not merely for livelihood but for their cultural requirement (Saxena 1999). Their economy was subsistence in nature. Moreover, a number of small tribal groups are completely dependent on the forest for their livelihood. Fernandes et al (1984) argue that the destruction of forest over the past few decades has deprived tribal of their livelihood, particularly the source of food. It has also resulted in their indebtedness and in many cases land alienation and even bondage.

2.2 The Changing Face of Tribal Livelihood

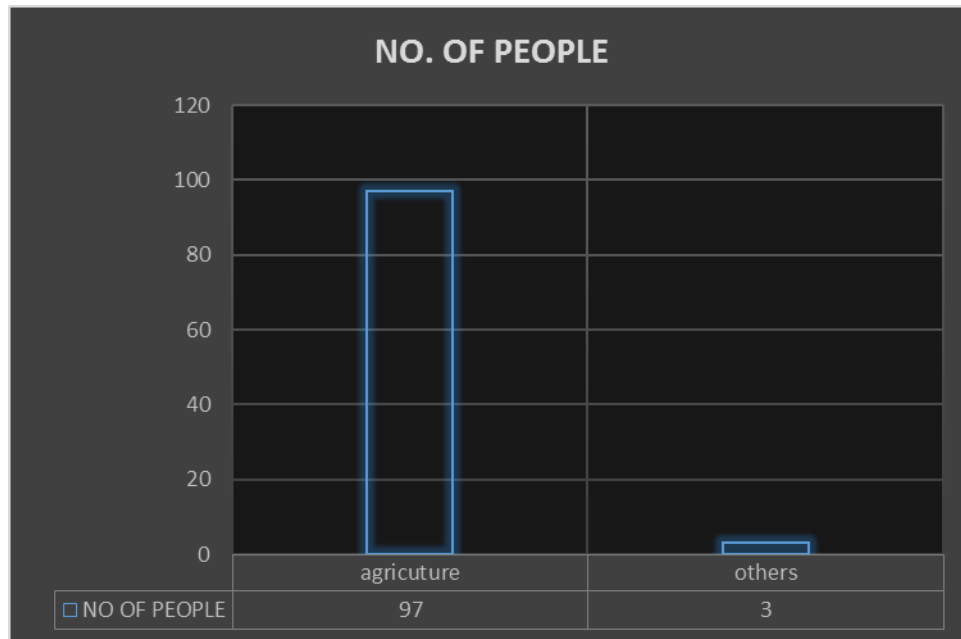
Since the early nineties, India has witnessed a series of changes in the agrarian economy. Unprecedented number of farmers suicide, big corporate houses entering into retail business, land allocation for special economic zones, boom in information technology and it enabled services, zero growth rates among employment are among many such events that need introspection.

In recent years the Indian government has made huge investment in development of infrastructure like roads telecommunication etc. It has passed legislation to benefit rural citizen. However, civil society organizations are often unaware of such legislation and they fail to influence the benefits.

2.3 Pre-Industrialization Rourkela Region

Before the advent of industrialization in the Rourkela region, tribal's were leading lives of sustainable subsistence. They depend on traditional agriculture and a regenerative forest economy. However, with the commercial exploitation of forest economy that is commercial exploitation of forests through mining, there has been a shift in the tribal livelihood of the region. Tribal, whose subsistence was dependent on forest produce such as edible fruits, leafs and tubers, were gradually deprived of their common property resources. Moreover with the opening of tribal lands in the wake of industrialization, the tribe caste interaction was intensified. This has resulted in mark changes in tribal life style, changes in their food habits and dresses and the upsurge of a new culture.

Tribals have become pauperized as their own resources base is shrinking and encroached upon by the industry and also by outsiders. The numbers of wage earners in the tribals is increasing. Many of the educated tribals are now forced to remain unemployed as there is a little prospect of getting suitable job in any organized industrial and territorial sector employment in and around Rourkela.



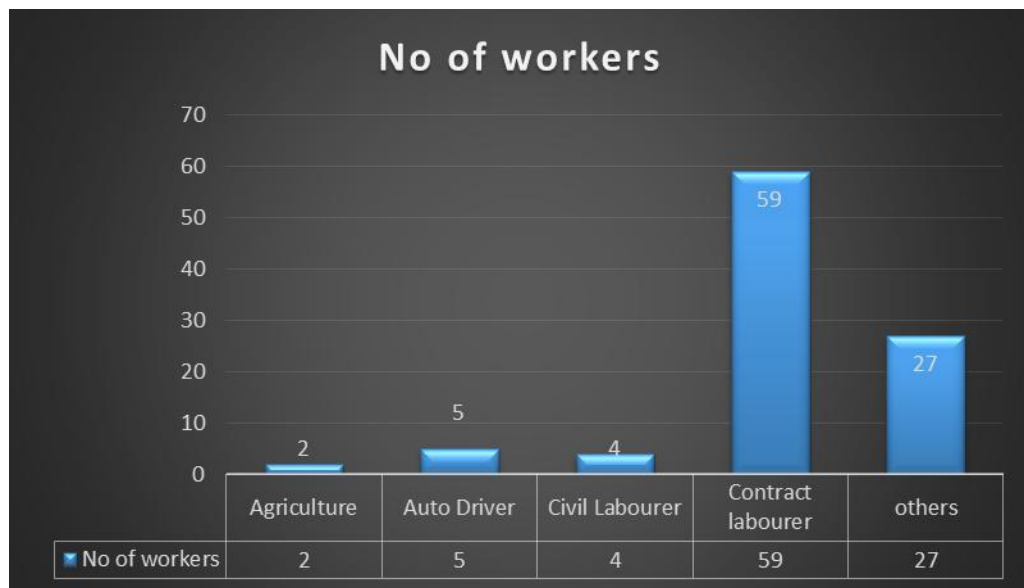
(Figure -1: SCENARIO BEFORE DISPLACEMENT)

As shown in the above diagram, almost 97 per cent of population were dependent upon the subsistence agriculture and their total livelihood was depend upon agriculture and rest other some 3 per cent of population were dependent upon other sources like vegetable seller, plant worker and mechanic labour.

2.4 Post-Industrialization and Displacement

The post displacement scenario has represented a different scenario. The state government in connivance with the capitalist led development agencies encroached in the tribals' belt and snatched away their land leading displacement of tribals extensively. The tribals could not be properly rehabilitated from their independent self-employment status in agriculture and the forest economy. The tribals have become wondering wage earners in the informal sector urban economy, their traditional sources of livelihood now almost lost. The domination of the upper caste Hindus in the organized sectors jobs of the region leaves them with little scope to enter to the formal job market.

Extensive mining activities in the entire Panposh area and Bonai sub-division of Sundargarh have destroyed dense forest and fertile agricultural lands, and the tribal are now dependent upon the unsustainable mining economy by hiring themselves out as daily wage workers. When they fail to get work they migrate to Rourkela as turnover and seasonal migrants. Working as contract labour of steel plant or as informal sector workers such as coolies, rickshaw puller, unskilled construction workers domestic maids and the like.



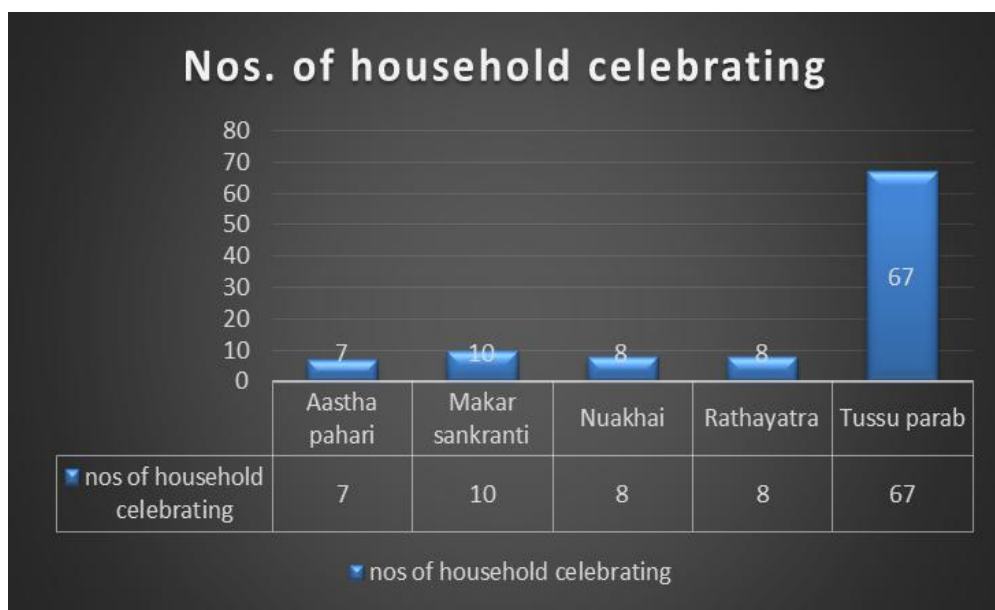
(Figure -2: POST DISPLACEMENT SCENARIO)

It is evident from the above diagram that there is an enormous change in the post industrialization period. In fact, in the post industrialization part the dependency upon agriculture has been vanished and the people were dependent upon the daily wage works such as rickshaw puller, contract laborers, coolies and construction workers.

2.5 Fairs and Festivals

Festival or gala is an event ordinarily started by the local community, which centers on the celebration of some unique aspects of that community and the festival. The word FEST has been derived from the Latin word 'festivus' or 'Festus'. Among many religions a fest is a set of celebration in worshipping god or gods.

Tribals in these areas mainly celebrated the Tussu festival. The annual Tussu festival is celebrated next day of makar sankranti considered with other agricultural related festival in the rest of the country, such as Pongal in the South and Sankranti in the Northern states of the Country. Tussu is celebrated for various reasons apart from the harvest significance. Tussu symbolizes the goddess Tussu Devi, made up of card board and decorated of colorful paper and female dolls, some reaching a height of even ten feet's. This is to be prepared by a group of unmarried teenage girls a week before the actual festival and make the village people admire. These girls sing spiritual songs and praising the might of the goddesses Tussu on the festival day the girl's carries on the goddesses Tussu on their heads to the festival spot and in a grand procession to the tune of the traditional drum beat.



(Figure -3: FESTIVALS IN TRIBAL AREAS)

These are some of the festivals celebrated in the tribal areas (as shown in figure 3). Mainly dominated by the *Tussu* parab a maximum number of respondents' household generality celebrate it. Every community has their own main festival. Tussu festival is the main festival of the tribal community. Apart from the *Tussu* festival people also celebrate Ratha yatra, Makar Sankranti, Aastha pahari and *Nuakhai* (also known as Nabanna). It is an agricultural festival mainly celebrated in the western part of Odisha. Nuakhai is observed to welcome the newly grown rice in the season. In accordance to the Hindu calendar, it is observed in the *paanchami tithi* (the fifth day) of the Lunar fortnight of the month *bhadra* (August-September). That is the day after the Ganesh chaturthi festival. This is one of the most important social festivals in Odisha.

Chapter – 3

3.1 Findings and Conclusion

The large scale migration of tribal people to Rourkela from the hinterland in recent years and their dependence on the informal sector economy of the city in no way can be characterized as upward mobility of the aboriginal population of the region. Rather they may be called ‘ecological refugees’¹⁷ (Meher 2003) in the city, struggling hard to eke out subsistence and finally bearing the brunt of the environment pollution generated by the Rourkela steel plant. It is not only Rourkela or the tribal populations of Sundargarh that are being pauperized due to the one dimensional industrial development designed at the top to serve the interest of the privileged sections of society. The entire industrial belt of Chota Nagpur stretching from Durg-Bhilai in Chhattisgarh to Rajgangpur-Rourkela in Orissa, Ranchi-Bokaro and Jamshedpur in Jharkhand, has experience a similar type of development, where the aboriginal population are reduced to being distressed migrants in urban-industrial centers of their own homelands(see Mathew 1989; Reddy 1994; Mandal 1985).

Many of the displaced Tribals of Rourkela could not be properly rehabilitated. From their independent self-employed status in agriculture and forest economy, the tribals have become wondering wage earners in the informal sector urban economy, their traditional sources of livelihood now almost lost. The domination of the upper caste Hindus in the organized sectors jobs of the region leaves them with little scope to enter to the formal job market. Extensive mining activities in the entire Panposh area and Bonai sub-division of Sundargarh have destroyed dense forest and fertile agricultural lands, and the tribal are now dependent upon the unsustainable mining economy by hiring themselves out as daily wage workers. When they fail

¹⁷ **Ecological refuges** refers to people who are forced to migrate from or flee their home region due to sudden or long-term changes to their local environment which compromise their well being or secure livelihood.

to get work they migrate to Rourkela as turnover and seasonal migrants. Working as contract labour in the steel plant or as informal sector workers such as coolies, rickshaw puller, unskilled construction workers domestic maids and the like (see Meher 2003).

While taking the case of industry, ecology and society in Rourkela, the present study indicates give a vivid evidence of relationship amongst these three factors. This rapture has occurred not only because of runaway industrialization and the use of modern technology, but also the residents of the city dwellers neglected the issue of environmental pollution. Nowadays hardly any industry is concern about the industrial pollution but only thinks of maximizing their profit from the common resources. Significantly, the tribal people of Rourkela believes that SAIL and the state Government are both responsible for the condition that they into at present. Over the year, they develop an anti-developmental (policy and programmes) attitudes as they are often marginalized and deprived of the profit sharing. Therefore, the state led development agendas need to be more inclusive so that the tribal people also become a shareholder. This would be essential in order to bridge the gap between the poor and the rich, the haves and have-nots.

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