

Contextualizing the Emerging Issues and Dilemmas of Displaced Ecosystem People: A Case of Coal Mining Industry at Talcher, Odisha (India)

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Abstract: *The coal mining operations adversely affect the people, society and environment in the resource rich regions of the world. These are so complicated and nerve breaking issues for the land oustees at Talcher coalfield of Odisha that after losing everything including their ecosystems many of them especially, the “ecosystem people” involuntarily pushed out of their hearth and home by coal mining industries in late 1980s, have been surviving like refugees in their own localities. In the process of their transition from subsistence economy to market economy over the years, though many of them are found to have increased money incomes and increased consumerism, they have been increasingly getting trapped into the complex of their deterministic dilemmas/dualism in and around the coal mining industries. In the process of mining activities they have not just got affected, but also have remarkably changed themselves experiencing the decades of their post-displacement trauma. In the changing circumstances, to what extent the land oustees can maintain their earlier status of “ecosystem people” is an important ecological question. In this paper, on the basis of primary and secondary data, we have attempted to understand the contextual issues/dilemmas of “displaced ecosystem people” at Talcher coalfield.*

Keywords: *Coal Mining Industry, Displacement, Displaced Ecosystem People, Ecosystem People, Land Oustee*

I. Introduction

It is an undeniable fact that the large scale mining industry significantly elevates the status of any regional economy compared to that of the global level, and facilitates the multinational corporations (MNCs) and national corporate houses (NCHs) to appropriate maximum profits at the cost of ecology and “ecosystem people”(EP) in virtually any resource rich region of the world. Most significantly, since 1980s/1990s the mineral-based economy, lifted by liberalization and globalization factors has been intensifying such dynamics in the mineral belt of India (Deshkukh, 2013; Meher, 2003 & 2001). Unfortunately, the large scale coal mining projects in India and Odisha are alarmingly found to have simultaneous contradictory effects such as material progress versus environmental pollution, economic growth versus ecological catastrophe, capitalists’ prosperity versus adversity on local people, public development versus local people’s impoverishment, accessibility to the fruits of development versus vulnerability to risks of development, development at industrial centre versus under-development at periphery, pro-modern life style versus anti-traditional life style, pro-global changed society versus anti-local society, so on, and so forth. It is in the name of “public development” and “mainstreaming the marginalized people”, the affluent omnivores (biosphere people) accelerate the process of mineral resource exhaustion, and of eviction of the ecosystem poor from their hearth and home by development projects in rural area (Meher, 2009 & 2003; Gadgil and Guha, 1995). Many social scientists argue that mega projects like multipurpose river dams, industries and mining of minerals and metals generate namesake benefits for the few relatively better off sections of populations among the marginalized and excluded in the tribal areas of India (Oommen, 2006 & 2004; Garada, 1995; Baboo, 1992). In contrary, the majority among them become the development victims. Their status from ecosystem people to ecological refugees in the slums of the large urban centres and grafted urban-industrial towns is a clear manifestation of the development pathologies of our time (Oommen, 2006 & 2004; Gadgil and Guha, 1995). It is found that in large mining projects the peasants and tribal lose their land not only to the project authorities but even to the affluent non-agricultural outsiders who converge into those areas and corner both land and the new economic opportunities in commerce and petty industry (Fernandes, 1994). It is also fact that for example, the outsiders and the people from coastal plain of Odisha have grabbed maximum company and other contractual jobs created in Damanjodi Aluminium Factory and Hindustan Aeronautic Limited (HAL) in Koraput, a tribal dominated district of Odisha, because the local displaced tribal, dalit and peasants were highly apolitical, illiterate, non-skilled and backward at the time of their displacement (Garada, 2012a & 1995). Further, the mining and industrial projects not only physically displace the local indigenous people, but also equally change their cultural identities and socio-economic status after displacement (Garada, 2012b; Meher, 2009; Pandey, 1998). The original ethnicity of displaced people and their

authentic symbiotic relationship with their whole ecosystems undergo rapid changes during post-displacement period. But in the changing circumstances the displaced individuals/indigenous people as to what extent maintain their earlier status of “ecosystem people” is an important ecological question. Unfortunately, beyond the increasing magnitude of development induced displacement and its consequent compensation/rehabilitation /resettlement issues, such question is largely neglected or hardly discussed and debated in India (Garada, 2011-012). Even, the risks reversal reconstructive activities like reemployment, house reconstruction, some civic amenities in resettlement colonies, etc could not reverse back the earlier status of “Displaced Ecosystem People”(DEP) in the mining areas (see Garada, 2012b; Garada, 2011-012, Pandey, 1998; Meher, 2003). In our study area, while some displaced ecosystem people are surviving in the urban industrial centers like ecological refugees, many others are struggling hard to revive their culture and reconstruct their socio-economic status in the resettlement colonies and clusters at present.

1.1. Statement of Problems at Talcher Coal Belt, Odisha

Since the nationalization of mining in 1970s Talcher opencast coal mining projects have been intensifying the growth oriented strategy of India in Odisha. However, its goals and means are increasingly found incompatible to that of those “Ecosystem people” who make their livelihoods and sustain their culture in and around the ecological setting, wherein these projects are located. In fact, coal mining operations have been adversely affecting the people, society and environment in Talcher area. Further, these are so complicated and nerve breaking for the mining affected ecosystem people that, it is not simply a question of their physical displacement, but also the displacement of their agricultural lands, common property resources, village atmosphere, settled community life, social capital, civil societies, indigenous knowledge, ideas, values, etc. Consequently, they are vulnerable to post-displacement impoverishment risks like landlessness, joblessness, homelessness, marginalization, increased morbidity and mortality, food insecurity, etc (see Garada, 2012b; Cernea, 2006; Pandey, 1998). The significance of this human complication and ecological crisis draws public attention worldwide. It is not merely the question of these effects and impoverished risks, but also a question of change that the ecosystem people have undergone for last several decades after their displacement. Now they are not less responsible or less favourable to the mining activities that destroy and destabilize their sustainable livelihood pattern. The displaced ecosystem people who live in the industrial centers hardly behave like “Ecosystem people” because they no more practice their earlier green economy. In Talcher coal mining areas, it is also found that the peripheries not far away from the coal mining centers are also equally impacted in all spheres. As a result, the individuals and land oustees (displaced /substantially affected land losers) who were involuntarily displaced into the peripheries are not living like “Ecosystem people” at present. Further, the land oustees surviving in the peripheries hardly resort to their traditional livelihood practices since their ecosystems no more fetch them good livelihood options at present. Some of them who live in the peripheries but still aim at the industrial center for their every day bread and butter suffer a lot, because the transition from their subsistence economy to market economy is not an easy process. It seems that with increasing money incomes the displaced/affected people have also been experiencing increased consumerism in their localities. Meeting requirement of increasing consumption patterns is a status challenge now. Because of the fact that their present state of living is not sustainable, but they can't help following this simply because they do not have other options in the industrial centers. Besides that, they have been observing their traditional socio-cultural occasions and religious festivals with modern life styles and living patterns. It is an observable fact that the displaced ecosystem people neither able to fully accommodate themselves into industrial life-style nor in a position to forgo their agro-based ways of life. In fact, they want both ecology and industry that leads to their increasing confused state of living. Thus, it is very important to conceptualize the status of “Displaced Ecosystem People” (DEP) and to contextualize their emerging issues and dilemma in their resettlement sites.

In this backdrop, I have analyzed and discussed the contextual issues/dilemmas of displaced ecosystem people basing on the data of the field study conducted during 2007-08. This paper consisting of six main parts such as Part-I consists of introduction and statement of problems, Part-II consists of reviews on the concept “Ecosystem people” and the dilemma of conceptualizing the land oustees as Displaced Ecosystem People, Part-III consists of area of study and methods of data collection with subheadings such as background of study area, objectives, sample frame, methods of data collection and demographic profile of pre and post-displaced households, Part-IV consists of findings on income versus consumption status with subheading such as money income status and observation on consumption pattern and Part-V consists of findings on overall contextual deterministic dilemma/dualism of displaced ecosystem people (DEP) and Part-VI consists of a brief conclusion.

II. Reviews on Ecosystem People and Dilemma of Conceptualizing the Land Oustees as Displaced Ecosystem People

It is not an easy task to establish who ecosystem people are, and how they are adjusting their position from “ecosystem people” to “displaced ecosystem people” and “ecological refugees” throughout their post-displaced periods. In fact, the people those who not only depend upon the ecosystem for their survival and well-being, but also maintain how it continues to generate the same are called as “ecosystem people” (Dasmann,1976; Wilson,1999). As according to E.O. Wilson (1999) the forest dwellers, peasant farmers, herders and fishers mostly from non-industrial world are called as the ecosystem people. In broader sense Dasmann (1976) thinks that “until the rise of the first civilized empires, all people on earth were ecosystem people”. However, both of them argue that the “ecosystem people” and “biosphere people” are different because the latter relies on market economy while the former maintains subsistence economy (Dasmann, 1976; Wilson, 1999). The ecosystem people maintain a proper balance between their economic needs/activities and the ecological requirements of the environment where they live in (ibid). In this way “a close and intricate relationship between culture and nature” (Dasmann, 1976) is promoted by the ecosystem people. In this regard, the people like Muthuvans from high ranges of Kerala are found to be the best example of “ecosystem people” in India (Damu, 2003). Gadgil and Guha (1995) in the book ‘Ecology and Equity- the Use and Abuse of Nature in Contemporary India’ explain the similar conception of ecosystem people. They argue that the ecosystem people are mostly belonging to indigenous groups (small farmers, artisans, fisher folk, hunter-gatherers and the like) who depend on local environment for their survival. Thus, somehow or other the ecosystem people belong to primitive tribal groups or any indigenous group whose survival is intimately connected to the survival of the ecosystem of which they are part. In Odisha, for instance, some tribal groups those who have been practicing their primitive /traditional subsistence economy of collecting forest minor produce and of fishing in ponds/rivers/springs are called as ecosystem peoples. The tribals like Birhor, Hill Kharia, Mankidi, Mankidia, Juang, Hill Bhuyan, Kondh, Lanjia Saora, Saora, Koya, Parenga, Didayi, Dharua, Bondo and Gadaba are found to have practiced this type of economy (<http://www.orissatourism.gov.in/new/tribes.html>). These tribes still love their living within minimum survival needs of food, shelter and cloth since their system of production, distribution and consumption is restricted to their relatives, kinship groups and village folks. They have simple technology (like arrow, bow, traditional agricultural implements, etc), simple division of labor and simplicity in their mannerism, myth, superstitions, blind beliefs, magic, animal sacrifices, etc (Hasnain, 1992; Patnaik, 2005). Their survival is intertwined with nature worship and supernatural beliefs. But after coming of industrial projects in their regions their unique features undergo drastic change since they cannot help changing themselves in the industrial centers. It is because; Industry as an engine of growth not only generates employment and income, but also breaks the walls of tradition changing the patterns of social structures (Garada, 2012b&1995). There are few, but most critical case studies, books, journals, seminar papers, etc (see e.g. Madebwe, Madebwe and Mavusa, 2011; Meher, 2009; Padel and Das, 2008; Oommen, 2006; Blaser, Feit and McRae, 2004; Gadgil and Guha, 1995; Taylor, 1995; Areeparampil, 1988; Viegas and Menon, 1985; Vidyarathi, 1970 and others) explain how the tribal and non-tribal people- mostly affected /displaced local indigenous/ ecosystem people cannot help themselves, but have to grapple with the crisis of their ecosystems damaged and disrupted by development projects. But where in fact, the ecosystem people displaced at least two to three decades before, for instance in early 1980s in coal mining belt of Odisha have not merely been miserably impacted by the mining projects but likewise they have been significantly changed themselves on the question of their dependency on, and disruption to their ecosystem in Odisha.

Thus, the concept “Ecosystem People” (EP) is no doubt different from the concept “Displaced Ecosystem People” (DEP). If we see first who are the “ecosystem people” before their displacement then somehow or other they are generally meant as nature friendly people, nature conservationist people, nature dependent people, nature worshipers, so on, and so forth. But still the “ecosystem people” is an emerging concept because an assumption or presumption based perception about ecosystem people creeps in much confusion. For instance, the ecosystem people who preserve the flora and fauna for their livelihood are assumed as mostly illiterate, backward and ignorant, and the people who destroy the ecology for their comfort and luxury are perceived as well informed and knowledgeable. In fact, what is ignorance to us that may be the knowledge for ecosystem people? And information or knowledge not necessarily replaces their ignorance. Thus, they are ignorant of the modern science and technology, but we might be ignorant of their knowledge, wisdom and morality regarding their ecosystem. Thus, there is growing misunderstanding of understanding about the so called “ecosystem people” in the ongoing development discourses worldwide. In fact, the displaced ecosystem people those who used to gain access, and control over, the natural resources before their displacement, now have either no access and no control or restricted access and restricted control over it after displacement. In this context we can define that any bodies or every bodies (including village wood sellers, village timber businessmen, rich peasants who pollute their land by using chemical fertilizer, etc) those who depend on the ecology for their livelihood are not necessarily the ecosystem people after their displacement by development

projects. Instead, in India they are subaltern castes and subaltern tribes (living by the, of the, and for the ecosystem) who have ecology based unique identity (eco-friendly in nature) different from mainstream society. But even, the displaced castes and tribes who follow the mainstream society's means and ends extracting and destroying the resources of ecology may not be called as ecosystem people. The project displaced peasant, tribal and dalit people who are absorbed into industrial economy, the land oustees who do not prefer land based options for their compensation and rehabilitation in favour of industrial jobs, the displaced tribal/dalit people who have been converted into other religion living in and around industrial area, the displaced peasants/tribal/dalit those who make their livelihood depending on industrial/urban centers but still live in periphery/rural areas, and the displaced backward class category/tribal/dalit people who have been mainstreamed by the development interventions of the government over the years hardly call themselves as ecosystem people. Our study reveals that the displaced ecosystem people have achieved their unique but confused identities with their new socio-economic crisis and deterministic dilemmas in and around the mining areas at present. The rehabilitation and resettlement policy defined concepts such as project affected people (PAP), project affected family (PAF), project displaced people (PDP) and project displaced family (PDF) do not clarify who displaced ecosystem people (DEP) are, and how they are different from other displaced/affected people in general. Thus, it can be defined that even after their displacement the land oustees those who not only practice their green economy, but also generate their eco-friendly living may be called as "Displaced Ecosystem People" (DEP).

III. Area of Study and Methods of Data Collection

3.1. Background of Study Area

The Talcher-Angul belt of Odisha, where we have conducted our field study is one of the major industrial mining complexes of India. Talcher coalfield is situated in central table land zone of Odisha about 120 km and 160 km away from Bhubaneswar and Bay of Bengal respectively. Talcher coalfield in Angul district of Odisha, having nearly 16.3 per cent of the India's total coal reserve has become one of the most important coal producers in the country (CMPDI, 2011). Beside huge coal mining industries Talcher is well known for having many major development projects namely National Aluminium Company Limited (NALCO), Captive power plant (CPPs), Talcher Thermal Power Station (TTPS), Rengali Multipurpose Project (RMP), Rengali Irrigation Project (RIP), Talcher Fertilizer Plant (FCI), Heavy Water Plant, etc in its vicinity. There are five coalfields areas in Talcher such as Jagannath area, Bharatpur area, Lingaraj area, Hingula area and Talcher area which come under the jurisdiction of Mahanadi Coalfield limited (MCL) at present. There were many opencast coal mining projects (OCMP) and underground coal mining projects (UGCMP) in these areas such as Balanda OCMP, Jagannath OCMP, Ananta OCMP, Bhubaneswari OCMP, Bharatpur OCMP, Chhendipada OCMP, Lingaraj OCMP, Kaniha OCMP, Balram OCMP, Hingula OCMP, Talcher UGCMP, Deulbera UGCMP, Nandira UGCM and Handidhua Colliery. Out of these opencast coal mine projects we have taken two projects namely Jagannath OCMP project from Jagannath coal field area and Bharatpur OCMP from the Bharatpur coal field area in our study (MCL Archives, 2007; 5.61). Jagannath OCMP and Bharatpur OCMP are located 12 km away and 18 km away from Talcher railway station respectively. In the Jagannath coal mining area average rain fall is 1410.66 mm per year, and in Bharatpur coal mining area it is 1483.66 mm per year. And in summer about 49 to 50 degree celcius temperature is recorded in these areas. According to Land Acquisition Office, Angul (as on 31.05.2007) a total of 3648.587 acres of lands in Jagannath coal mining area during 1960, 1984 and 1990 and a total of 1330.710 acres of lands in Bharatpur coal mining area during 1979 and 1984 were acquired by the coal mining projects. So far, only 77 per cent of total persons sponsored for employment by MCL in case of Jagannath area and 67 per cent of total persons sponsored for employment by MCL in case of Bharatpur area were employed (ibid). The displaced/affected people or land oustees are Hindu by religion belonging to aboriginal/indigenous groups mostly tribes, subaltern castes (scheduled castes), peasants and farmers of all castes who have been surviving on agriculture and allied activity, mining and industrial economy and entire ecosystem for several decades in the Talcher coal belt. As per the 2001 census, out of total 33,625 hectares of geographical area in Talcher block only 36.91per cent was cultivable area, and only 18,694 numbers of farm families were living at present.

3.2. Objectives

Main objective of this paper is to conceptualize the status of "displaced ecosystem people" and contextualize their deterministic dilemmas at their present state of living. Other related objectives such as to assess the land oustees' pre-displacement and post-displacement income status, and to know how their consumption patterns are correlated to their income level at present.

3.3. Sample Frame

The study has covered 7 villages, completely acquired/ affected by two opencast coal mining projects namely, Jagannath OCMP and Bharatpur OCMP in Talcher coal belt. The sample villages namely Balanda, Nakhtrapur, Purunia and Chandpur have been affected by Jagannath OCMP, and the villages namely Anantaberini, Baideswar and Lachhmanpur have been affected by Bharatpur OCMP. Out of total 911 displaced /affected households from seven villages in the present study we have covered 109 households by taking 12 per cent from displaced /affected households of each village through simple random sampling method.

TABLE 1
Sample Frame

Sl.No.	Sample Villages under Projects	Universe (as on 1.04.2007)	%
A	Under Jagannath OCMP	Project Affected Families (PAFs)	12 %
1	Balanda	411	49
2	Purunia	07	01
3	Chandpur	64	08
4	Nakhtrapur	80	09
Total (A)		562	67
B	Under Bharatpur OCMP	Project Affected Families (PAFs)	12 %
1	Anantaberini	250	30
2	Baideswar	50	06
3	Lachhmanpur	49	06
Total (B)		349	42
Total(A+B)		911	109

Source: Land Acquisition Office, Angul, Odisha

Out of total 109 sample households taken for our study except 2.75 per cent general caste category (mostly Brahmin and Karana castes) all are belonging to backward caste categories such as Chasa, Gauda, Guria, Teli, etc (60.55%) and scheduled castes mostly Dhaba, Pana and Khajuria (36.70 %). Except few affected families, and employed oustees in MCL quarters all displaced/affected families are either living in the resettlement colonies or in self-settled clusters in Talcher area. Out of total 911 project affected families(PAFs) 50 per cent at the Handidhua resettlement colony, Central temporary colony and Kuiojungle resettlement colony, and another 50 per cent at self settled Pabitrapur cluster and Rodhasar cluster have been resettled respectively till our field study 2007-08(Land Acquisition Office, Angul).

3.4. Methods of Data Collection

The methods like descriptive research design, random sampling design, interview schedule, focus group discussion, participant observation, etc are being used for the collection of primary data in this study. Books, journal, archive, reports, internets, etc are being referred for our secondary information and analysis in this paper. The pre-demographic and post-demographic data of sample households are analyzed with simple statistical method in this study.

3.5. Demographic Profile

It may be mentioned here that majority of the displaced families of MCL projects in Angul-Talcher region of Orissa are living in joint family set up comprising husband and wife, their married son(s), daughter-in-law(s), unmarried sons/daughters and also grandchildren. Because of this reason the average family size of oustee households in our sample is 9.05 persons in post displacement period. Though, the literacy rate has been markedly increased from 74.53 per cent in pre-displacement to 84.30 per cent in post-displacement period still there is gender gap (as 74.71% female literacy against 93.59% male literacy), and hardly anybody is highly educated person (as only 3.81% graduate, no post-graduates available and only 0.79% having diploma degree, ITI/ CT degree, etc) during post-displacement period. The sex ratio has been changed from 948.84 in pre-displacement period to 977.95 to post-displacement period. The sex ratio is quite akin to that of state level in 2001 census, but remains little high comparison to national level due to increased number of families in the requirement for rehabilitation and resettlement package, dowry demands met by compensation money and increased number of female children and aged women at present.

TABLE 2
Demographic Profile of Pre and Post-Displaced Households

SL.No.	Demographic Particulars	Pre	%	Post	%
1	Sex				
1.1	Male	606	51.31	499	50.56
1.2	Female	575	48.69	488	49.44
	Total	1181	100	987	100
2	Sex Ratio	948.84		977.95	
3	Average Family size	10.83		9.05	
4	Literacy		74.53		84.53

Source: Household Survey 2007-08.

IV. Finding and Discussion on Income Versus Consumption

It is an observable fact that the increased money income has been changing the status of displaced families at Talcher coalfield. Majority of the displaced families after spending their compensation money on construction of houses, marriages of young oustees, medical treatment of the family members and such family needs are now busy spending on consumer goods and leading urban life style. But to what extent, the displaced people will sustain this life style is an important question.

4.1. Money Income Status

It is fact that peoples those who could manage to get regular salaried category project jobs are now placed in high income groups with steady flow of income. And their educated children have also got engaged in non-farm employments in and around the coal mining industries. However, the majority of displaced people especially, the weaker and depressed category population did not actualize that opportunity due to their backwardness and illiteracy. But somehow or other they have also been earning wage income through daily wage labour, contract work and many other non-farm engagements in and around the coal mining industries. According to 1992 BPL Survey of Government of Orissa during early 1990s a family having an annually income of less than Rs.11000 per annum in rural area was considered BPL (Below Poverty Line) category household. However, according to the estimates of the Planning Commission the rural families having an annually income of less than Rs.21000 at the time of commencement of the Eleventh Five Year Plan (2007-12) may be treated as BPL category of household. This income level for the rural family is worked out with the assumption that the average size of a rural family in India consists of five persons in majority of the cases. However, as discussed earlier the average size of family in our sample oustee households 10.83 persons and 9.05 persons in pre-displaced period and post-displaced period respectively. On this basis, if we work out the BPL level income in our sample oustee families during pre-displacement period (1980s and 1990s) according to 1992 BPL survey of Government of Orissa, it should be Rs. 23826 or say Rs. 24000. Similarly, the post displacement period cut off point of income of the oustee families of our sample should be Rs. 38010 or say just Rs.38000. Thus, according to our estimate about 15 per cent and seven per cent of displaced sample households were belonging to BPL category households during pre-displaced period and post-displaced period respectively. This means incidence of poverty among the oustee families in terms of money income has markedly reduced in the post-displaced period (Table 3). Similarly on the basis of our calculation if we take more than Rs. 48000 or say twice the level of BPL point income just Rs. 24000 as stated earlier, and if we take more than Rs. 76000 or say twice the level of BPL point income just Rs. 38000 as stated earlier, then about 21 per cent and 80 per cent of the sample oustee households in pre-displaced period and post-displaced period respectively are found to have more money income than others in our study.

TABLE 3
Annual Income Profile of Surveyed Households in Pre and Post Displacement Period

Sl. No.	Income Range	Pre-Displaced	Post-Displaced
1	Below Rs.8000	0(0.00)	3 (2.75)
2	Rs.8000-12000	1 (0.92)	1 (0.92)
3	Rs.12000-15000	3 (2.75)	0 (0.00)
4	Rs.15000-18000	1 (0.92)	0 (0.00)
5	Rs.18000-21000	2 (1.83)	2 (1.83)
6	Rs.21000-24000	9 (8.26)	0 (0.00)
7	Rs.24000-30000	28 (25.69)	0 (0.00)
8	Rs.30000-35000	17(15.60)	1(0.92)
9	Rs.35000-38000	15(13.76)	1(0.92)
10	Rs.38000-470000	10(9.17)	2(1.83)
11	Rs.47000-50000	10 (9.17)	2 (1.83)
12	Rs.50000- 75000	13 (11.93)	10 (9.17)
13	Rs.75000-100000	0 (0.00)	10 (9.17)
14	Rs.100000-150000	0 (0.00)	40 (36.70)
15	Rs.150000-200000	0 (0.00)	27 (24.77)

16	Rs.200000 & Above	0 (0.00)	10 (9.17)
Total		109 (100.00)	109 (100.00)

NB: Figures in Parenthesis denote percentage

Source: Household Survey 2007-08.

This clearly reveals that the money income of the displaced families of MCL projects has markedly increased in post-displaced years. This increasing income status shows that non-farm income sources or project based employment sources are fast becoming the alternative options against sustainable agro-based or eco-based livelihood pattern of pre-displaced households. As a result, why the displaced families cannot be called as ecosystem people is quite visible. Further, in our focus group discussions many senior most land oustees explain that with the current money income they cannot meet the requirements and comforts of their increasing and invisible expenditures on food and non-food items. Our study reveals that with the increase in money income of the oustees in post displaced period there is a huge marked change in their consumption style.

4.2. Observation on Consumption Pattern

It is observed that in the name of modernization and westernization the progenies of oustees have now switched over to an artificial life style that has started generating many negative socio-cultural effects at the family and community level. After displacement many among the oustees have lost access to non-polluted and nutritious food as once supplied by the agricultural fields, kitchen gardens, common property resources and village forests in their old villages. Now for any food needs including cereals, pulses, vegetables, fruits, etc displaced ecosystem people mostly depend upon market, and their access to such food items is closely correlated to their income level. Thanks to market economy rapid consumerism is proliferating in the region. It has been observed that now people invariably spend much on non-food and non-essential goods vis-à-vis essential life sustaining goods. In these circumstances the poorer category oustees have become the worst victims of changing life style. It is significantly found that consumption level of alcohol has markedly increased, so also the culture of eating out and spending more on fast foods. Now-a-days people, especially most of the MCL employed and of other non-farm engaged oustees are found to be spending lavishly on consumer durables like motor cycles, refrigerators, air coolers, color television sets, VCRs/VCPs, mixers/grinders, geysers, washing machines and other non-food items like clothing, ornaments, mobile telephones, electronic goods, petrol for using two-wheelers/cars, etc. Most of the lower income category households are spending on consumer goods by curtailing their consumption of essential food items carrying nutritious value. The semi-literate families having project-based jobs have developed craze to possess all such consumer durable goods as status symbol. They do not bother about educational future of their children or health status of family members. There is now so much spread of consumerist culture among the oustees that it will be very difficult for the future generation to sustain their present life style in a vacuum after the exhaustion of mineral deposits of the region.

V. Finding on Contextualizing Deterministic Dilemma/ Dualism of Displaced Ecosystem People

Gone are the days when the land oustees were highly determined by their religions and societies for their every aspect of life. But now the modern science and industrial mode of production remarkably influence their everyday life at Talcher coalfield. However, the later could not make them free from their traditional world views. In fact, theological determinism, astrological determinism, societal determinism, economic determinism, scientific determinism, technological determinism etc come together like close cousins affecting every walk of their life. Further, be it religious determinism or technological determinism all are anti-thetical to human freedom (Sicilia, 1993). Thus, it is critical that the whole industrial climate at Talcher coal belt has further complicated the life of the land oustees by adding other issues of technological determinism at present. Our study also reveals that the land oustees have been grappling as well as adjusting themselves with their deterministic dilemmas/dualism during their post-displaced periods. The factors like religion, science, economy, technology, etc determine their life styles simultaneously at present. See for instance, even after more than two decades of their actual displacement they could not forget their religious rites and rituals in the MCL quarters, resettlement colonies and self settled clusters. In fact, religious determinism is the notion that humans believe to have virtually no control over their life privileges, life chances and life achievements. Everything, which happens to them as if, is predetermined by external forces or entities (Kulikovsky, 1999). It is quite observable fact that after demolition of temple and sacred structures of village deity by opencast coal mining projects the displaced ecosystem people has reconstructed the same in their resettlement colonies and clusters with similar beliefs and traditions. Even the major coal mining machines are ritualized during Viswakarma puja/ Durga puja (Hindu festivals) with great pomp and show at Talcher coal mining area. It is like traditionilization of modernity. Superstitions, blind beliefs, nature worship, spirit worship, ancestor worship, family rites/ rituals and indigenous knowledge based practices are still observed in the Talcher locality. During our field study some senior land oustees in Rodhasar and Pabitrapur resettlement clusters argue that they still practice these

traditional rites and rituals because their religious and theological determinism solace them in their confused state of living at present. Their younger generations occasionally observe these practices along with their family members, but do not believe it seriously. It is worth to note that the MCL employed skilled land oustees living in MCL quarter with all modern facilities also believe in astrological determinism, as they more often see their horoscope in order to find out what will happen after their retirement, even if, they fully know that it is an escaping strategy. Our study also reveals that before displacement hardly any household had any consumer durables, electric items and motor vehicles. But after displacement now every household more or less have some consumer goods like refrigerators, grinders, television, music system, mobile telephones, electric fans, scooters, bicycles, motor bike etc as stated earlier. Some technologies like fan, mobile phone, cycle, bike, etc are no more luxury for the displaced people in these days. Our study also reveals the variation among the generations regarding the use of consumer goods, because while senior land oustees cannot forgo the importance of their traditional living patterns/ religious rituals their younger generation do not stop themselves imitating the modern life style giving importance to science and technology at present. Though, it is leading a generation conflict and contradiction actual dilemma of whether to accept science/technology against religious beliefs or to reject later in favour of the former. They are in a mess of both perspectives without taking a stand. Further, it seems that the displaced ecosystem people still maintain their caste, kinship and gender affiliation everywhere. Their strength of “we feeling” or common cultural mentalities is getting increasingly disrupted. As a result, they neither come together like one peasant community nor do they unite themselves like same working class at that time of their crisis. But contrary to it, for instance, on the basis of similar caste background the displaced land oustees (Chasa) from displaced Balanda village have got settled in Pabitrapur cluster. Similarly the displaced land oustees (Chasa) from displaced Baidesar village have got settled in Rodhasar cluster on the ground (regionalism) that their forefathers had migrated to Baidesar from Rodhasar village in the past. Our study also reveals that mining authority has discriminated against scheduled caste oustees by shifting them into a temporary colony known as central colony, and till our field study, 2008 no permanent colony was made for them. But in case of displaced Balanda and Anantabereni village the some higher caste displaced people had pressurized the mining authority to make Handidhua Colony and Kuiojungle Colony respectively for their resettlement. Thus, neither mining authority nor displaced villagers and nor even the MCL employed people are free from the mini societies of their castes, gender and faiths. But when their livelihood is concerned nothing comes in the way of their income and employment. Economic determinism explains that economic factors confirm everything sensible in human life neglecting other factors. But individuals may be succeeding their living through economic factors however, relishing it still through their cultures. Thus, economy and culture go together everywhere. Similarly with their subsistence agriculture the ecosystem people used to have their culture of reciprocal relations and economic exchange before displacement. Our study reveals that since common property resources and agricultural lands either have been acquired or highly polluted the ceremonial, cultural and occupational exchange among the displaced ecosystem people no more possible. The hereditary occupational interdependency among the service castes like washer man, fisherman, barber, priest, blacksmith, potter, goldsmith, carpenters, and other is not visible at present. For instance, the people belonging to Khajuria caste (scheduled caste) who used to make and sell locally made wine have lost their traditional occupation after displacement. Dhobas as washer men neither find their clients in the resettlement colony/ cluster nor do they find village ponds for washing the clothes of others. Similarly, the fishermen cannot carry on their traditional occupation in the colonies /clusters since water sources are being polluted by the mining operation and fly of coal ashes at present. Except employed oustees every body is coming to a process of standstill. Many of them, being highly critical to the processes of the MCL made compensation, rehabilitation and resettlement, openly blame government and MCL authority for their present state of depression, confusion and agony. For instance, the oustees argue that since only one adult member of each displaced family was given project job other members have been struggle hard for uncertain contracting works or died down traditional occupations. The senior displaced ecosystem people lash out their anguish that if company job is limited and one time rehabilitation the land based-rehabilitation is unlimited and full time sustainable. But later one is not possible, since large quantity of agricultural lands have been acquired by the mining projects in Talcher locality. In this situation, they are in conflict with others over resource sharing in their localities. Our focus group discussion reveals that while the some of the displaced ecosystem people invite regular conflict with other sharing latter’s common property resources in and around their resettlement sites, many other pick up as usual conflict with outsiders on the question of sharing project-based employment opportunities created in and around coal mining industries.

VI. Conclusion

Thus, we can conclude that the land oustees are leading toward an urban life style in rural area fully knowing that former is not sustainable, and what is sustainable that has been damaged and disrupted by the coal mining industry over the years. In this changing circumstance, they are also undergoing a serious identity crisis.

Regarding their present status a mess of three main types of land oustees is reflected in our study. The first type include those displaced/affected individuals mostly belonging to skilled or semiskilled MCL employed people who are living in MCL quarters like “biosphere people”. They have great fears and respects to the MCL authority, and dare not disclose anything about MCL activities to any non-MCL worker. They enjoy urban life style getting all facilities from the MCL projects detaching themselves from their kith and kin who survive in the peripheries. The second type includes those displaced/affected people mostly belonging to non-skilled and semiskilled individuals who are living in and around the coal mining industries like “ecological refugees”. These people neither can settle back in their resettlement sites, since they don't have any landed property for their livelihood support there nor can they live like the MCL employed people at coal mining centers, since they feel that they have been marginalized in the process of displacement. Some of them also commute everyday from their resettlement sites to earn wage income/engagement in the coal industries. They are much tensed and enraged against MCL employees, government officials and MCL project authority for the reasons best known to them at present. The third type include those displaced/affected people mostly belonging to non-skilled and semiskilled people, who claim themselves former “ecosystem people” are living in the resettlement colonies/self settled clusters. Now, these “displaced ecosystem people” living in peripheries still think of regenerating their ecosystems, and have also re-cultivated their sense of environmental ethics and morality to some extent. But they are also largely dependent on non-farm income sources or project-based employments/engagements in their locality. In fact, the status of land oustees is assumed to be in a state of flux, because from the same stock of land oustees, some have become the ecological refugees, some have become the biosphere people type and others have become the displaced ecosystem people. Thus, dilemma of conceptualizing the land oustees as displaced ecosystem people is justified. Increasing money income versus increasing consumerism, present state of living and deterministic dilemma/dualism, increasing dependency syndrome on coal mining industries, generational conflicts, host-guest conflict in sharing common property resources in peripheries, conflict in sharing project based employment opportunities, etc have significantly established the post-displacement crisis of displaced ecosystem people. Even, if scientific and practical world view of coal mining centers precedes over theological mindsets of the land oustees, the major chunk of them carry on their lives on religious beliefs, traditional practices and ascriptive affiliations related to their caste, kinship, gender, etc everywhere. Now they neither come together like same peasant community or same group of land oustees nor do they unite themselves like same working class people because their earlier symmetrical and asymmetrical socio-economic reciprocity have been vanished after coming of mining industries in Talcher area. Further, the contextual living patterns and deterministic dilemmas make them restless and confused to large extend as “what to do” or “what not “in their societies, coal mining centers and semi-urban markets. In this respect, each deterministic view is simply not important against another. Neither God, nor coal mining project, nor society and nor even the stars decide what ultimately happens to them. It is the concerned government authority and the local people who must have to select or reject the development projects for the future of displaced ecosystem people and their vibrant ecosystem. Regrettably, the displaced ecosystem people are increasingly going to be the cause as well as effect of their present state of living that they must take care of.

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Reference

- [1] S.Deshkukh, Socio-Economic Study of The Peoples established in Three Steel Plant in India, *The Journal of Social Science Researcher*, V. II No III, 2013,12-23
- [2] R.Meher, The Social and Ecological Effects of industrialization in a Tribal Region: The Case of Rourkela Steel Plant, *Contributions to Indian Sociology (n.s.)* 37(3), 2003, 429-57.
- [3] R.Meher, Impact of Economic Liberalisation on the Backward States and Weaker Sections of Population in India, *The Fourth World*, No 14, 2001, 58-86.
- [4] R.Meher, Globalization, Displacement and the Livelihood Issues of Tribal and Agriculture Dependent Poor People: The Case of Mineral-based Industries in India, *Journal of Developing Societies*, 25, 2009, 457-480.
- [5] R.Meher, *How Mineral-based Industrial Development Marginalizes and Displaces People in India: Three Case Studies*, (Lewiston, New York: The Edwin Mellen Press, 2010).
- [6] M.Gadgil and R.Guha, *Ecology and Equity- The Use and Abuse of Nature in Contemporary India*, (New Delhi: Routledge and Penguin Books India, 1995).
- [7] T.K. Oommen, Coping with Development Pathologies: Resistance to Displacement, *Sociological Bulletin*, 55(2), 2006, 267- 80.
- [8] T.K. Oommen, *Development Discourse: Issues and Concerns*, (New Delhi: Regency Publications, 2004).
- [9] R. Garada, *Development and Underdevelopment in Orissa: A Sociological Study*, M.Phil diss., Jawaharlal Nehru University, New Delhi, 1995.

- [10] B. Baboo, 1992, *Technology and Social Transformation- The Case of the Hirakud Multipurpose Dam Project in Orissa*, (New Delhi: Concept Publishing Company, 1992).
- [11] W.Fernandes, *Development-Induced Displacement in the Tribal Areas of Eastern India, Mimeo*, (New Delhi: Indian Social Institute, 1994) 22-32.
- [12] R. Garada, Industry versus Regional Development: A Case Study of Odisha, *Deliberative Research, V-15, Issue-15, July to Sept.2012a*, 1-15
- [13] R. Garada, *Opencast Coal Mining Induced Land Acquisition: A Study on Land Oustees at Talcher Coalfield, Odisha (India)*, (Germany: LAMBERT Academic Publishing AG & Co KG, 2012b).
- [14] R. Garada, Myth of Compensation for Land Acquisition: A Case of Displaced People of Talcher, Odisha. *The Fourth World, Volume-29&30, No.30*: 58, Oct.2011- April2012, 71-80.
- [15] B.Pandey, *Depriving the Underprivileged for Development*, (Bhubaneswar, Orissa: Institute for Social and Economic Development, 1998).
- [16] M.M.Cernea, The International Dimension of Tribal Displacement: Findings on Resettlement and Impoverishment in Africa, *Adivasi, 46(2)*, 2006, 1-47.
- [17] R.Dasmann, Notice: Unaware Citizens of Biogeographical Provinces, *CoEvolution Quarterly, 1976*. (<http://www.wholeearth.com/issue/2011/article/363/biogeographical.provinces>)
- [18] E.O. Wilson, Biodiversity and Its Loss...What Does It All Really Mean? Do or Die, *Voices from the Ecological Resistance Issue 8, 1999*, 109-120 (www.eco-action.org/dod/no8/biodiversity.html) (www.musicdoc.org.uk/cspt/documents/issue2-1.pdf).
- [19] T.Damu, *Helping "Ecosystem People" Protect Wilderness and Their Own Welfare. USDA Forest Service Proceedings RMRS-P-27, 2003*. (www.fs.fed.us/rm/pubs/rmrs_p027/rmrs_p027_072_076.pdf).
- [20] <http://www.orissatourism.gov.in/new/tribes.html>
- [21] N.Hasnain, *Tribal India*, (Delhi: Palaka Prakashan, 1992).
- [22] N. Patnaik, *Primitive Tribes of Orissa*, (New Delhi: D.K. Print World (P) Ltd., 2005).
- [23] C.Madebwe, V.Madebwe and S.Mavusa, Involuntary displacement and resettlement to make way for diamond mining: the case of Chiadzwa villagers in Marange, Zimbabwe, *Journal of Research in Peace, Gender and Development Vol. 1(10)*, 2011, 292-301. (www.interestjournals.org/JRPGD/pdf/2011/.../Madebwe%20et%20al.pdf).
- [24] F.Padel and S.Das, Cultural Genocide: The Real Impact of Development-Induced Displacement, in H.M.Mathur (ed.) *India Social Development Report 2008, Development and Displacement*, (New Delhi: Oxford University Press / Council for social Development, 2008) 103-115. .
- [25] M.Blaser, H.A. Feit and G. McRae, (eds.), *In the Way of Development-Indigenous Peoples, Life Projects and Globalization*, (London and New York: Zed Books, 2004).
- [26] B.R.Taylor (ed.), *Ecological Resistance Movements: The Global Emergence of Radical and Popular Environmentalism*, (Albany: State University of New York, 1995).
- [27] M. Areparampil, Industries, Mines and Dispossession of Indigenous People: The Case of Chotanagpur, in W.Fernandes and E. Ganguly Thukral (eds.) *Development, Displacement and Rehabilitation: Issues for a National Debate*, (New Delhi: Indian Social Institute, 1989)13-38.
- [28] P.Viegas and M. Menon, The Social Costs of deforestation, *Social Action, 35(4)*,1985
- [29] L.P Vidyarthi, *Socio-Cultural Implications of Industrialization in India: A Case Study of Tribal Bihar*, (New Delhi: Research Programme Committee, Planning Commission. New Delhi, 1970).
- [30] Central Mine Planning & Design Institute Limited (CMPDI), Inventory of geological resource of Indian coal, (Ranchi, India, 2011) (http://www.cmpdi.co.in/docfiles/coalreserve_010411.pdf)
- [31] MCL Archive, (Jagruti Vihar, Burla, Sambalpur, 2007).
- [32] Government of India, *Report of the expert group to advise the Ministry of Rural Development on the methodology for conducting the Below Poverty Line (BPL) census for 11th five year plan*, (Krishi Bhavan ,New delhi August, 2009)
- [33] David B. Sicilia, Technological Determinism and the Firm, *Business and Economic History, Volume, Twenty-two, no.1, Fall1993, Business History Conference*, 1993. (www.thebhc.org/publications/BEHprint/v022n1/p0067-p0078.pdf)
- [34] Andrew S.B.Kulikovsky, *Determinism: Twisted thinking?* (1999). (www.kulikovskyonline.net/hermeneutics/determin.htm).