Chapter - 7

Summary and Conclusions
CHAPTER - 7
SUMMARY AND CONCLUSION

Development may be defined as a process of change, which may be planned or unplanned, manifested in different domains of material and non-material aspects of nature and culture. The notion of development is a controversial and contested one. When we look back at human civilization, we find that barring wars and recessions there has been continuous growth in material life but with little parity in distribution. Taking a balanced view development would refer to growth with distributive justice. However, development is not a uniform process in different parts of the world. Some pockets may be more developed than others in material terms whereas it may be reversible in non-material terms. Technology seems to be the dividing factor in today's global development. Development of several sorts is associated with displacement. Displacement of flora, fauna, and topographical structures and even of human beings has a long history and is considered quite natural in the evolutionary system. Displacement can be because of natural as well as man-made factors. The continuity of this phenomenon especially as a problematic has been realized during the last two centuries in the aftermath of development of science and technology and industrial revolution. Recently, it has been more visible and explosive virtually worldwide.

A large numbers of development projects have been launched by the Government of Independent India to accelerate the process of economic development and to meet the changing socio-economic requirements of the people. The main objective of Independent India has been to promote balanced development of regions and people by initiating the process of industrialization in the backward areas of the country. From Independence of India to present globalize era many mega development projects in the fields of mining, industry, irrigation, power, etc have been set up. As a result, there has been a lot of involuntary displacement of human population in the country. The involuntary
displacement have not only dislocated the people from their hearths and homes but also affected their economic, socio-cultural and demographic life. Most importantly, the unintended consequences of all such development have been landlessness, joblessness, homelessness, marginalization and pauperization of the oustees, disruption in their socio-cultural life pattern, loss of access to common property resources and ecological and environmental pollution. The rehabilitation and resettlement policies initiated by concerned governments and projects in different time were though important but could not mitigate the sufferings of the displaced/affected people. Consequently, this has become a serious issue starting from remote village to most metro city of the country. Moreover, the impacts of mega coalmining and thermal power projects have been different from other projects. Displacement due to these projects has not only brought adverse impacts on the affected population but also backfired the governments and projects in the country. The development-induced displacement requires continuous debate at global level. Its scale and complexity and the subsequent problems may be increasing and it is bound to increase because of globalization and a particular understanding of development.

What we infer from this that mega projects relating to mine, power, industry and urbanization and gigantic structure for human needs and luxury seems to be important manifestations of development. The protagonists for this development are not perturbed by the human sufferings caused by such development projects. Resistance movements throughout the world, supported sometime by academicians, NGOs and civil societies have compelled such protagonists to review and rethink over these issues so much so that even the major funding bodies like the World Bank and the Asian Development Bank are interested more and more to investigate the adverse impacts of development projects. The importance of this topic is highlighted by the fact that there are very few success stories, as regard to rehabilitation and resettlement taking all the projects at the global level.

Considering the above facts, we have realized the said importance and social relevance of the topic, i.e., rehabilitation and resettlement consequent upon
development projects. Research on displacements has been mostly dam centric everywhere and much less on other projects like mining, power projects, urbanization and all that (Cernea, 2005) highlights that in the present decade the magnitude of urban and mining displacements grow fastest. In this respect, since the limitation is a doctoral thesis we have attempted to understand the positive and negative impacts of mining and power projects and the complexities of rehabilitation and resettlement in a district of Orissa. For these purpose we have selected one mining project and one power project namely MCL coal mining project at Talcher and NTPC Talcher Supper Thermal Power project at Kaniha in the Angul district of Orissa. We have selected the Angul district of Orissa judiciously for the field study because this is one of the rare districts in the country where all major forms of displacement are found. Since Angul district has abundant natural resources of land, forest, mineral and water and locational advantages of transport facilities like road and railway, it invites the prospect of industrialization in the state. The Talcher-Angul belt is the one of the major industrial mining complexes of the country. The district not only contributes maximum amount of revenues to the state government but also employs more rural population in the mining and industrial projects. There may be many reasons for the justification of taking simultaneously two projects in our study. But most importantly there are two reasons - one is technical and another is spatial proximity. In technical sense, there has been fuel-engine relationship among coal and thermal plant. Interestingly thermal plants use primarily coal as raw material. So in technical sense of the term coal has got production relation with NTPC and NTPC will carry out such relation everywhere. Secondly thermal plant is set up nearby the coalmines and it has also got similar impacts of displacement. In this understanding the MCL and NTPC projects are being taken for the present study. In the foregoing chapters, it has been revealed that development as perceived by the modern development practitioners does not reach the poor and marginalized people who in fact require such therapy to cross the barrier of poverty and inadequate living. This is because of the faulty and inadequate R&R policy of all such development projects that assumes automatic absorption and assimilation.
of the displaced population in the development process if they are simply compensated for the loss of their assets and homes to restore their living in their new place of resettlement. This myth of cash compensation and project-based employment to one adult person of every substantially affected/displaced family in fact does not help much for the oustee people to become equal coparceners of development like the beneficiaries of a modern development project. Hence, in the present chapter after recapitulating the major findings of the study, certain conclusions on the implication of mineral-based development projects and their repercussions on the displaced families as well as project-affected population have been drawn.

**Theoretical Insights**

Displacement occurs when people lose either land or house or both simultaneously. It also means the restriction of access to livelihood resources which occurs even without expropriation. The occupational and economic dislocation may not be necessarily accompanied by the physical dislocation. There are gender dislocation and livelihood displacement which deprives the PAPs/DPs from their sustainable means of production and socio-cultural milieu. There are also Project Impacted Persons (PIPs) who are neither physically displaced nor hosts but affected by the projects in various ways such as environmentally, economically, socially and culturally.

The displacement may either be compulsory and involuntary (due to push factors) or voluntary (due to pull factors). Further, it may either be temporary or permanent displacement. It may take place in small scale or large scale with many strategies like making compulsory and compelling situations, coercive situations and deceitful situations. All type of displacements cause human sufferings. Hence, it is need to have appropriate rehabilitation and resettlement provisions for the affected and displaced.

The magnitude of displacement has been alarmingly increasing worldwide. It is about 14-15 million each year. The development projects in China and India have been responsible for massive displacement and dislocation of human population in the world. During 1950-2005, India had displaced about 60 million people next
to China (70 million). It is found that all over the world dam and irrigation projects displace more people. Next to the former category of projects, it is observed that the mining and industrial projects cause more dislocation of livelihood and shelter of ecosystem people. The latter category projects have severe ecological consequences and serious social, cultural, economic and psychological repercussions.

Since there is increasing trends of global population growth, urbanization and technological innovations coupled with changing lifestyle, there will be more mining and industrial projects in the future. Hence, while forecasting the future perspective of these projects there is need for a mechanism to be evolved not only to check the scale of displacement but also to minimize the environmental damages.

Displacement of any form and category always carries overall impoverishment risks such as landlessness, joblessness, homelessness, marginalization, food insecurity, increasing morbidity and mortality, loss of access to common property resources and services and social disarticulation. Such risks potentials are not only confined among the displaced population, but also they affect the host population in various ways. Landlessness decapitalizes and pauperizes the displaced. It also snowballs into the other risks such as joblessness and marginalization. Joblessness refers to unemployment, underemployment and loss of wage employment. Homelessness results in alienation from families, individual homes, groups' cultural space and status deprivation. Homelessness and placelessness are closely related process. Marginalization occurs when affected families lose their economic power and spiral on downward mobility—slip into below poverty threshold. Economic marginalization occurs due to relative economic deprivation or economic capital lost. Socio-psychological marginalization occurs when the oustees lose their social, cultural and family bond due to project activities. Food insecurity leads to poverty, poverty leads to undernourishment, undernourishment leads to malnutrition and prolong malnutrition leads to increase morbidity and mortality. The social disarticulation decreases social capital, disperses and fragments communities, dismantles
pattern of social organization and inter personal ties, scatters kinship groups, disrupts life sustaining and informal network, etc. Apart from that macro risks may not be consistent with micro risks such as side specific risks and gender specific risks which are not seriously taken by the concerned projects. Displacement discourse in recent years has centered mostly on impoverishment risks and sustainable living of ecosystem people. There are four groups such as (i) anti-displacement group or antagonists who reject development-induced displacement projects altogether, (ii) pro-displacement group or protagonists who support development-induced displacement projects, (iii) the protagonists for balanced approach who see development-induced displacement projects for the benefits of project and displaced/affected and (iv) a group of vested interest having protagonists/antagonists' dilemma who take ambiguous stand on the displacement.

Methodological Framework
In the light of this, the present study concerning development-induced displacement and resettlement and rehabilitation in mining and industrial projects is conceptualized. The study is centered on two development projects of Angul district in Orissa having close inter-linkage with one another. The study is primarily based on household survey of substantially affected/displaced families of MCL coal mine projects and NTPC project in Angul-Talcher industrial corridor by using purposive sampling method, focus group discussions and participatory field observation method. It may be recapitulated here that the major objectives of the study are:

1. To know the awareness of people regarding establishment of the particular projects, process of acquisition, evacuation, compensation and resettlement and rehabilitation.
2. To know the survival strategy adopted by the displaced people when they were asked to vacate or forcibly evacuated by the project authority.
3. What role did civil society and NGOs play in rescuing the affected people from the ensuing difficulties?
4. In the completed projects, what is the experience of people about the overall rehabilitation and resettlement?

5. According to people's perception, what were the positive and negative effects of these development projects and what could be the way out in future to set aside the adverse impact of such projects?

**Major Findings**

In this study, we analyzed the pre and post-displacement socio-economic status of displaced / affected families and their present state of living by using household survey data and focus group discussion. The MCL and NTPC projects were in operation in Angul-Talcher region for more than 20 years or so at the time of field survey during 2007-08. It is reported that after receiving compensation the original displaced family split into two/three new families due to separation of grown up brothers/sons from the parents. In this changed environment we get a mixed picture of socio-economic status of the oustee families in post displacement years which show prosperity of the minority few at the cost of adversity of the majority oustee households. This has been evidently clear from our comparative socio-economic analysis of the oustee families between their pre and post displaced state of living.

**Demographic Structure**

Before land acquisition/displacement majority of the sample families was living in joint family set up. Now although many live in joint family set up, the average family size has been reduced to 8.41 persons from 9.79 persons in the pre-displacement period. There is also a marked change in the demographic structures of population. For instance, the average sex ratio increased from 941 to 976 females per 1000 males, economically productive age group population from 26.82 per cent to 27.62 per cent and old age category population from 11.56 per cent to 18.65 per cent.

**Education Level**

There is increase in the literacy level of displaced families. Of course, this is due to general trend in rise of literacy level of population after 1980s due to National Literacy Mission and universalization of primary education system in the state.
However, it is found from our household data that as compared to pre-displacement period more number of people of the present displaced families is having formal school education of more than 10 years. In addition there has been some improvement in the college and technical level education of people. Notwithstanding this, the oustee people feel highly insecure about the future of their progenies, as the education received by them in the present development scenario of the region does not help much to sustain their living in the non-farm sector occupations. There is a trend of increasing unemployment among general graduates and ITI qualified people. Many among the first generation oustees employed in project-based jobs are at the verge of their retirement. The second/third generation people among the oustee families having higher level general or technical education do not have much scope to earn their living from these projects, as there is an increasing trend of mechanization of coalmines and the thermal power plants all over the country.

**Occupation Profile**

Before land acquisition/displacement majority of the household earners had multiple occupations in addition to agriculture. Apart from agriculture as high as 18.78 per cent earners were found to be engaged in their caste-based hereditary occupation such as fishing, dairy and animal husbandry, pottery, weaving and the like. But only a very few among them now report agriculture is their principal means of livelihood. Only around 6.10 per cent of the earners of the pre-displaced families were found engaged in salaried services in the organized economic sectors such as government, public and private corporate sector service. In contrast among the displaced households almost 50 per cent of the earners are project-based contract workers and around 20 per cent earners are salaried jobholders of State Government, MCL and NTPC projects. Added to that around 5 per cent of the earners are at present retired pension holders who were earlier employed in State Government service and project-based service of MCL and NTPC. The average number of main earners per displaced family has been reduced from 2.69 persons to 2.45 persons and the average number of part-time or marginal category earners from 3.86 to 0.97 persons respectively.
Living 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 leaving others to struggle for their minimum. According to our estimate the number of BPL category households among the oustee families of the sample during pre-displaced period was 55 (25.00%). As against that in the post displaced period the total number of BPL families with an annual income level of below Rs.35,000 among the oustee households of our sample is only 25 (11.36%). This means incidence of poverty among the oustees in terms of money income has markedly reduced in the post displaced period. The oustees’ average annual money income in both MCL and NTPC project area has been markedly increased after displacement. For instance, it has increased 3.55 times from Rs.34,209 in the pre-displaced period to Rs.1,21,338 in the post displaced period. However, among the different group of oustees the ST group of families has been least benefited vis-à-vis the SC, OBC and general category oustee families. In contrast to that the OBC group of oustee families has received maximum benefits in the post displacement period in term of money income. At the same time, it has been found that the rise in income level of the sample oustee families is accompanied by a rise in disparity level of income between different income groups. This is clearly reflected in the coefficient of variation value of both post and pre displacement periods. However, it is important to note that simply rise in money income may not improve the quality of life of oustee population and their overall level of happiness. Displacement generates many types of impoverishment risk and social and cultural shocks for ecosystem people.

Assets Position

It is found that the assets position has not increased in proportion to the rise in income level of oustee families in post displaced years. The average assets value of an oustee family was Rs.3,85,981 in pre-displacement period. This has increased to Rs.7,50,245 in post displaced period, thereby showing an increase of only 1.94 times. It may be noted that due to inflationary situation of the Indian
economy the real value of money over the period of last 25 years or so has markedly depreciated by more than two times. That means the value of money in mid-1980s when displacement took place in Angul-Talcher region due to MCL and NTPC projects if valued in current prices shall be appreciated by around 2.5 times. On this basis, when the average assets value of the oustee families in the pre-displaced period is calculated at current prices this comes to Rs.9,64,952, whereas the present average value of asset of an oustee family is only Rs.7,50,245. This means the oustee families have been pauperized in terms of average value of assets owned by them in the post displaced period. The average value of land assets of an oustee family in pre-displaced period was Rs.2,35,639 at the then current prices in mid-1980s, whereas this has come down to Rs.2,28,429 in the post displaced period at current prices 2008-09. Apart from agricultural land the oustee families have registered remarkable fall in the average value of other agriculture related assets like bullock, bullock cart, trees, etc. In contrast, the average value of modern consumer goods possessed by the oustee families during post displaced period has shown remarkable increase.

Dwelling Condition
Now more number of sample households reside in pucca and semi-pucca category houses with better amenities such as toilets, bathrooms, electricity connection and the like. In pre-displaced period more than 60 per cent of the houses owned by the oustee families were reported to be kutchha thatched roofs and another 25 per cent of the houses were kutchha tiled roofs. As against that 45.20 per cent of the houses resided by the oustees are now found to be pucca and concrete roofs and another 15 per cent of the houses are semi-pucca type with tiled roofs or thatched roofs. However, the number of houses among the oustee families in both the projects has considerably been reduced in the post displaced period. On an average each oustee family in the sample had 1.60 houses in the pre-displaced period and this came down to 1.28 in the post displaced period. It is further found that in the post displaced period majority of the oustee households have switched over to
consumption of modern fuel energy in their kitchen instead of using traditional fuel wood. In pre-displaced year fuel wood was the major source of cooking energy in around 80 per cent of the households. Apart from that around 17 per cent were using coal as their main cooking fuel in the houses. However, in post displaced period about 30 per cent of the sample oustee households are using LP Gas for cooking purpose, whereas hardly around 20 per cent of the households at present use wood as their main source of cooking fuel. Use of coal as cooking energy has also increased from 17 per cent in the pre-displaced period to around 34 per cent in the post displaced period.

Consumption Pattern

Before displacement although the oustees did not have adequate money income and agriculture was mostly subsistence oriented, everybody had better access to nutritious and healthy food. People did not have much health problem. Any deficit in food could easily be met by virtue of their free and customary access to village common property resources, family kitchen garden and the like. Almost 85 per cent of the oustee families had backside space in their pre-displaced house to grow vegetables for self-consumption. 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 this environment the poorer category oustees have become the worst victims of changing life style.

Health Status

It is revealed from our focus group discussions that many among the displaced people now suffer from other non-communicable diseases like cancer, paralysis, rheumatism, arthritis, diabetes, hypertension and heart diseases, which were little known diseases in the region in the past. It was reported that an oustee family now on an average spend almost Rs.500 on medicines. People fall sick more so often and many among the oustees having non-salaried type wage income fall into the debt trap because of increasing sickness and morbidity level.
Agricultural Economy

In the post displaced years the agricultural economy of the oustee families has completely been ruined. It is because after land acquisition the oustees could not restore their previous land holding status in present affected villages/resettlement sites. For instance, reduction from 10.91 per cent to 0.45 per cent, from 30 per cent to 2.27 per cent, from 31.82 per cent to 6.36 per cent and from 27.27 per cent to 23.18 per cent in the land holding pattern of large farmers, medium farmers, small farmers and marginal farmers is found respectively at present. But none of the sample households was landless during pre-displaced period, whereas the landless level among them increased to as high as 67.73 per cent in the post displaced years. Landlessness among the displaced/affected families of these projects has remarkably increased in the post displaced years. Those who were physically not displaced from their hearth and home also suffered a lot, as they could not buy substitute land to earn their living from agriculture. It has been revealed from our household survey that there has been a remarkable fall in the agriculture-based earning of the people in the post displaced years. So, in the absence of agriculture-based employment many had to struggle for their food and livelihood security after land acquisition/displacement.

Displacement Effects and People's Strategy

Notwithstanding the rise in money income and reduction of poverty incidence level in the post displaced years, the oustees are not happy with their R&R status and feel deprived in many respects vis-à-vis unaffected people sharing benefits of both MCL and NTPC projects.

The MCL R&R policy did not mention any measures for reducing the scale of displacement. Unlike MCL project though NTPC project tried its level best not to displace the people for the project activity but its intention of avoiding physical displacement in favour of affected villagers is not clear. People argue that MCL displaced the people because the coal resources were there in and around their villages. But the NTPC project did not acquire the villages avoiding unnecessary problems of evacuation and resettlement of the villagers. In case of MCL project
there was one policy but land was acquired under both LAA and CBA. In none of the policy of these two projects it was mentioned that there would be willing buyer and willing seller or win-win possibility on the acquisition of land and other assets and their compensation. It also did not follow the welfare approach to solve the problems of displaced and affected persons. It seems that the policy follows the capitalistic approach but without following the fair market principle. Both the policy did not invite the people's suggestions for project activities in the affected and displaced villages. There was no mention of benefit sharing mechanism in the policies. It means the concerned projects did not want to give any development benefits and opportunities to the affected/displaced villagers. Though the MCL and NTPC affected/displaced people reluctantly accepted their policy grouping into four categories and two categories respectively but they opposed the priority provision fixed on their grouping for rehabilitation benefits.

In case of MCL project, there were many shortcomings in the policies for rehabilitation and resettlement such as no provision of job to “C” and “D” category land oustees, no mention of what to do with the left out unacquired patches of plot, no mention of mechanism to deal with the delay in acquisition of land under CBA Act and delay in compensation, rehabilitation and resettlement process, no mention of provisions to compensate the displaced sharecroppers, encroachers, squatters and dependents on common property resources, no mention of mechanism to check the environmental pollution, etc. There was provision for plot allotment but without construction assistance for house structures in the colony. The policy did not keep any financial or social security provision for the unmarried daughters and sisters above marriageable age. It also ignored the social security of the physically and mentally challenged persons irrespective of age and sex suffering from more than 40 per cent permanent disability, minor orphans, widows and divorcees. Also, there was no mention of mechanism for appointment of separate officers by the project to deal with the R&R issues of displaced and project-affected population. There are only two resettlement colonies namely, Handidhua resettlement colony with 321 housing plots of 5 decimals each and Kuiojungle resettlement colony with 200 housing...
plots of 8 decimals each for the resettlement of the displaced families. Only a few affected / displaced villages of Jagannath and Bharatpur coal mining area were resettled in these two colonies with very little infrastructure and service facilities. Majority of the displaced families are left on their own with uncertain future. In fact, all promised infrastructure facilities are not yet being provided to the resettlement colonies.

Employment-based Rehabilitation

The employees of MCL are broadly categorized into skilled workers, semi-skilled workers and unskilled workers. Just after displacement the oustees of Talcher coalfields were neither highly literate nor technically trained. After training given by the MCL or after achieving technical qualifications only a few among the first and second generation oustees could get skilled and semi-skilled jobs. Owing to lack of minimum level of education, the oustees could mostly be given unskilled category jobs. But unfortunately quite a few among the oustees failed to get unskilled jobs even, as such jobs were limited in supply vis-à-vis the demand. In the case of employment matter, the policy of “hire and fire” was followed by the coal mining projects. It is further observed that while on one way MCL has made the people dependent on mining jobs by wiping out the other sources of employment (mostly traditional occupations such as agriculture and allied activities), at the other end it has started downsizing its manual workforce by increasing mechanization of work.

The increasing unemployment with decreasing jobs has become more disastrous for the future of the oustees and their progenies. The people have been struggling to take shelter under the umbrella of MCL Company, but their efforts are gradually going in vein. The MCL recruitment not only divided the people of coalfield into skilled, semi-skilled and unskilled but also executive, monthly rated, daily rated, piece rated, badli, apprentice (stipend trainees), etc.

Moreover, it has been observed that employment-based benefits given to only a few eligible oustees are generating many unintended effects among the oustees and non-oustees families of the same village /region. This further divides the people into beneficiary and non-beneficiary. There has also been affected and
non-affected village controversy over employment opportunities of people in the coal mines.

The World Bank's instruction for a mechanism to be adopted to ascertain the preferred choices of oustees in various options available to them was also not strictly followed by the government of Orissa in the NTPC policy package.

The NTPC rehabilitation policy 1988 was not even at par with the rehabilitation package given to the persons affected /displaced by lb Thermal Power Station (ITPS) at Banaharpali of present Jharsuguda district of the state at that time. Unlike lb Thermal Power Station the policy package of NTPC, Kaniha did not have job provision for marginally affected family. The policy also did not follow the conditions given by the ministry of environment and forest, Government of India on rehabilitation of affected families.

The World Bank's instruction for a mechanism to be adopted to ascertain the preferred choice of oustees in various options available to them was also not strictly followed by the NTPC rehabilitation policy package. The affected families seriously doubted the plea of NTPC that since there was non-availability of land, the land for land option was not materialized.

Although on the line of World Bank's instruction a committee was appointed to survey the affected villagers but representation of sociologists, anthropologists, NGO specialists and affected families and women was not found in the committee. As a result, gender dimension and sociological effects due to land acquisition were missing in the policy of original rehabilitation plan 1988. However, in the absence of adequate replacement land the original NTPC rehabilitation policy, 1988 adopted some rehabilitation options. These were training in ITI for suitable candidates having educational qualification, allotment of shops adjacent to the plant approaches and inside the township and the promotion of agro-based industries like dairy, poultry, etc.

But there were implementation problems as the state government had some reservations about the rehabilitation plan and had taken up with NTPC for certain modifications, particularly relating to employment matter. However, the NTPC authority clearly stated that neither it was possible to absorb all the affected
families in project nor the affected families had similar qualifications for the jobs. A revised policy plan came into being which is known as revised rehabilitation plan, 28.11.1990. But unfortunately, this was not much different from the earlier policy.

**Employment Status of NTPC, Kaniha**

For skilled jobs none of the oustees had necessary experience for which NTPC did not have liberal stand. Many non-technical category jobs in the NTPC plant, which could have been given to SAP oustees on priority basis, were ignored by the project authority. According to oustees the project authority followed an exclusion policy. They say according to NTPC policy, if someone was not educated, he/she was not fit for job, if someone was educated, he/she was not experienced, so could not be given job. Similarly, if someone was educated and experienced but did not have necessary driving license for heavy vehicle, he/she was not fit for operator jobs of heavy machinery like crane, dozer and other transport vehicles.

The NTPC R&R package not only divided the affected villagers into SAP and LAP but also divided the brothers as not all of them were eligible for getting job on rehabilitation ground. Further, villagers argue that it also made split between the fathers and sons. The employed son or brothers as jobholders have left the original oustee family for staying at NTPC quarters. In many cases, the employed son did not share their salaried income with parents and unemployed brothers. It is also found that NTPC has engaged many outsiders while many among the SAPs have been waiting for project jobs and for the maintenance work.

The authority of NTPC, Kaniha says that the Head office at New Delhi has framed rules to deploy its surplus manpower of other NTPC projects in the upcoming vacancies of any NTPC project. If that is so, the villagers argue that then why not their left out 273 SAPs can be engaged in other 23 NTPC projects in India?
Maintenance Works

NTPC ensures that the contractors confine their recruitment from among the substantially affected families for maintenance wage works excluding the marginal affected families. The affected people argue that those who are eligible to get jobs are being engaged as permanent wage labourers, so that they cannot question the project authority for their employment. This also leads to socio-economic disparities among the SAPs, as the regular jobholders are getting handsome salary with other allowances, whereas the same unskilled workers working under the contractors get much less in terms of monthly wage. More so, since NTPC does not have reservation provision on contractual jobs, the weaker sections like SC, ST and women are often deliberately excluded by the contractors for maintenance works.

Rehabilitation through Self Employment Schemes

The project (NTPC) constructed two market complexes, one inside the shopping complex of the township (50 shop rooms) and the other outside the plant area (110 shop rooms). This did not benefit the affected families because of the distance of market complex and the allotted SAPs were not used to such shopping business. The self employment schemes like industry, dairy, poultry etc were also not materialized. The one time cash dole assistance of Rs.50,000 (deposited in the bank) given to the substantially affected families for the monthly cash dole for a period of 30 years was also not an amicable solution to the SAPs' survival problems, as many of them desperately needed money for their immediate needs.

Both policy provisions did not mention the involvement and role of NGOs, civil society, voluntary organization and community based organization in the implementation of R&R activities. The gender discrimination is also reflected in the resettlement and rehabilitation policies of the projects. There is also no mention of any policy provision for the benefits of host villagers and for the solution of conflict between resettlers and host population after displacement.
Grievances on Compensation

It is found that once the notification was declared for land acquisition, the affected households were helpless till the compensation was received in their hands. Unfortunately neither the state government consulted the affected households before disbursing the compensation nor the affected people tried to know the way compensation was calculated for different assets. Even none of the affected sample households asked the concerned authority about the calculation. As a result, the government and the project authorities took advantage of the situation and fixed the compensation in their favour. Due to delay in land acquisition and payment of compensation, the affected/displaced families had to face many problems such as they could not sell or mortgage their land at the time of urgency of money. Also, they could not make any plan to purchase land, build alternative houses, or search for alternative means of livelihood. They had to postpone essential social functions like marriage of their sons and daughters. There was also problem in meeting immediate needs like medical treatment of seriously ill persons, as land could not be offered as collateral security to obtain cash loan from the bank / local moneylenders. Since none of the of the oustee families was given compensation with its consent much before the land acquisition and displacement, none could plan for possible reconstruction of the livelihood. The valuation of land was based on the type of land as recorded officially but not according to its present quality. People complain that the authorities neither had made proper classification of the various types of land, wells, ponds, trees and houses nor did they value them adequately for their compensation. As a result, the land oustees did not get a reasonable amount of compensation for their lost land and assets.

In the case of MCL project area, due to lack of NGOs’ support and political apathy everything related to compensation was decided arbitrarily either by the government or the project authority. But in the NTPC area, this was checked to some extent due to the active interference of political parties and grassroot level civil society organizations. The MCL villagers also complained that when they did not accept the inadequate compensation their cases were referred to the tribunal.
for reconsideration of higher compensation which took a lot of time and money. Because of the delay many of them not only got compensation later but also found difficulties in getting jobs in the projects. The affected / displaced people complain that those who had in possession of government land and constructed houses upon such land, they did not get compensation for all such encroached land. Further, it was found that the mode of payment under CBA Act was harsher than that of Land Acquisition Act.

It has been reported by the people that the bulk amount of cash received by them in the form of compensation was misused by many. They spent the cash in unproductive activities like marriage of sons and daughters, on buying luxurious consumer durables like refrigerators, motor cycles/scooters and also on repayment of old debts. Some spent the compensation money on medical treatment of seriously ill persons of the household. In no way, the compensation helped the displaced and project-affected families to restore their lost socio-economic status in the post displacement years.

Protest Movement

First the affected/displaced households in the form of appeal, petition, prayer, persuasion, etc. approached the project and government authorities for the protection of their rights and properties, but that failed to have any impact. Then they resorted to protest strategy by doing strike, road blockage and rally. Further, when that also failed they obstructed the construction work through protest movement. Their protest movements were strengthened by political party, village panchayat civil society, voluntary organization, community based organization and women's organization in the sample villages.

Under the leadership of SUCI, NTPC affected people organized their movement bringing different villages together to fight against the arbitrary imposition of land acquisition law and deficient compensation package as declared by the NTPC project and the state government in 1988. Unlike NTPC affected people, the MCL displaced /affected people could not organize their protest movement against the coal mining projects due to lack of unity and poor mobilization of the affected families at the inter-village level. It is because of land acquisition by
many OC and UG projects under both LAA and CBA, allurement of project jobs and big promises of project for rehabilitation sites after displacement, etc. In case of NTPC project since the villages were not displaced the village level organization could mobilize their affected villagers against the project. In contrast, in the case of MCL the affected villages were totally displaced. The oustees could not come together, as they were not resettled in a colony or a cluster village. However, in each and every village there was village committee for negotiating the rehabilitation and compensation matter after land acquisition. In fact, the resistance to the evacuation process was found in almost all displaced sample villages. Though the District Action Group (DAG) was working in the area for the right of the land oustees, it failed to mobilize the oustees like the SUCI in the NTPC area. So, due to lack of leadership, lack of interest of political parties, lack of active village level civil society, etc. the MCL affected villagers did not have any strong protest movement. In the case of NTPC area, the SUCI educated the people about the project activity through pamphlets, leaflets and group discussions. Secondly, it agitated the people about inadequate compensation and rehabilitation package against their land acquisition and finally it organized a successful protest movement against the land acquisition from village level to block level and to state level at Bhubaneswar. But in case of MCL area, as the affected people were agitating through the village committee without any support of political party or civil society organizations, they were mostly directionless. They did not have adequate knowledge about their exploitation by the project.

Awareness Particulars
Though the affected sample households (50 per cent in MCL and 45 per cent in NTPC) knew some things about their eligibility criteria for R & R benefits but many of them (50 per cent in MCL and 55 per cent in NTPC) did not know about the policy conditions, facilities and their right to project benefits. For instance, majority of sample households did not aware of the facilities to be given in resettlement colonies by the project authority. As a result, the colony settled people still feel that provisioning of basic amenities in the colony cannot be
claimed as a matter of rights. According to them it all depends upon the sympathy or mercy of project authority.

It is revealed from discussions that the majority of sample households (81 per cent) did not ask the survey officers about the reason of survey or anything related to land acquisition during survey time. Even the survey authority did not bother to consult the affected households about their status of landholding in detail revealing the purpose of survey for land acquisition. However, a very few rich farmers managed to convince the survey team to record their actual status and complicacy of their landholdings. Some households approached revenue inspectors and politicians to influence the survey teams. However, on the whole, majority of the affected households were neither consulted individually nor were they encouraged to object land acquisition process in both NTPC and MCL area. While the role of NTPC and MCL authority was negligible for giving notification information, the role of the political leaders (15 per cent), friends and relatives (40 per cent) and village level organization (20 per cent) was vital. It seems that it was a deliberate strategy of government and project authorities to keep the affected people ignorant about the detail of notification so that they could acquire land acquisition without resistance.

Perception after Notification for Land Acquisition

When notification for land acquisition was served people in general were afraid of losing their status of landholding. About 75 per cent of our sample households perceived that they would not get the same agricultural land elsewhere and 85 per cent were tensed and confused about their future. In MCL area, large number of the sample households was afraid of leaving the place of their socio-religious significance. However, some households (5 per cent) were interested to leave their place, as there was scope of getting employment and company quarters. These few people while perceiving better future started preparing themselves for alternate means of living in non-farm sector. They sent their children for ITI training and technical education, invested money in business, purchased houses and lands in the nearby town, made work contract licenses to take up contracting works in the projects. In spite of that no one perceived that they would be happier
in future after losing agricultural lands for these projects. Rather many could foresee that due to their lack of education they would be deprived of any project-based jobs and their only source of living would be lost as it would not be possible to get equivalent agricultural land after land acquisition.

Objection
About 90 per cent of the sample households expressed that they were neither consulted nor encouraged individually to object the acquisition process in both NTPC and MCL area. But the affected population (78 per cent) had objected the process of land acquisition very strongly. While NTPC project affected villagers had objected to the land acquisition process through their collective organization, the MCL project affected /displaced villagers though could not organize all villages together, they objected to land acquisition through their respective village committees and intra-community chain. In both areas the major grounds of objection to land acquisition were inadequate valuations of lost assets, involuntary land acquisition and apprehension about loss of agro-based livelihood, loss of access to public resources, inadequate job placement in the project, inadequate resettlement plans and implementation and the like in the post displacement period. In the MCL area involuntary physical displacement and the disparity in valuation of lost assets under LAA and CBA were the major ground of objection by the affected people. Added to that in NTPC project area people claimed separate family status to each adult member for job and other rehabilitation benefits and sought clarity on the explanation of public purpose of land acquisition.

Evacuation Process
In both MCL and NTPC project area, the affected villagers could not resist their physical displacement as the project authority had its own strategy taking together government and police force evacuating the displaced households in several shifts. While some displaced households of MCL area were not aware of the date of evacuation, majority did not take it seriously. It seemed that they were not in a mood to leave their habitats. But the project used police forces through district collector for the evacuation of affected households. During involuntary
evacuation the displaced villagers were tortured, humiliated and arrested by the police and government authorities. The company informally used the services of local goondas and miscreants in order to terrorize the families resisting displacement from the land of their forefathers. Many displaced oustees were unwilling to leave their place because they not only had strong attachment to the parental house, physical and social environment but also they could perceive the impending insecurity in relocation sites and uncertainty of socio-economic and cultural reconstruction after displacement. About 86 per cent of the MCL displaced sample households have expressed their dissatisfactions against concerned authorities as they were bureaucratic (19 per cent), coercive (16 per cent), corrupt (17 per cent) and not useful (34 per cent) at the time of selection of resettlement site and their shifting. But only 11 per cent MCL sample households expressed their satisfaction because of their early placement in the project-based jobs and they had their prior resettlement in the town area before their actual displacement from the project acquired village.

However, it is reported that some displaced oustees started organizing their caste based community to shift together to a place where they can access to land, water and forest resources. Especially, a chasa caste group from Balanda displaced village had visited different places before purchasing lands at Pabitrapur cluster and some chasa caste displaced villagers from Baideswar also started thinking of shifting to the Rodhasar area considering that their forefathers had migrated to the Baideswar in the past from that area. But many higher caste and lower caste people could not strengthen their caste sentiment for shifting together to other place. While the negligible higher caste people either wanted to settle in the nearby town Talcher or in the MCL quarters, the lower caste people lacked means and support to organize them for better settlement before their evacuation. It is also fact that the oustees from big villages like Anantaberini and Balanda demanded for their resettlement colony prior to their evacuation. So, the Handidhua and Kuiojungle colonies were constructed for the Balanda and Anantaberini villagers respectively. However, till today the oustees from the small
villages like Chandpur, Purnia and Nakhetrapur do not have their permanent colonies because of their lack of initiative and demand for their resettlement.

**Resettlement Process**

While about 78 per cent of the sample households were given options for the resettlement, only 8 percent of the sample households were evacuated voluntarily by the project. No government or project authority had ever consulted the displaced households for the alternative options about their resettlement and rehabilitation sites. As a result 92 per cent of the sample households were involuntarily resettled. Out of the total MCL displaced sample households, 43 per cent went to permanent colony, 24 per cent went to temporary colony, 9 per cent went to MCL quarters and 24 per cent went to their self-settled cluster villages. It is, however, found that there are no scheduled caste households in the cluster villages. A large proportion of them are found in the colonies. Out of the total 34 per cent MCL displaced SC households, 15 per cent are staying in the temporary colony. In fact, the MCL authority has discriminated by forcing them to move to temporary colony without giving enough time to rebuild their strength for shifting to another place. Now MCL authority keeps on warning them to leave the central colony. This shows that the SC sample households staying in the temporary colony are the worst sufferers. In temporary resettlement colony, the resettlers were simply forced to move for a temporary period. The resettlers in the permanent colonies were also instructed to speed up their house construction work in the colonies for their evacuation. First the project after giving the compensation gave job to respective eligible oustees and instructed them to shift to the allotted plot in the colony as soon as possible. Since it was not possible for the oustees to shift fast, the MCL authority threatened them to take disciplinary action against the jobholders of the respective households. Finally, the project authority demolished the structure of the remaining households and pushed the oustees into the colonies by force. Many complain that shifting allowance was not enough for the shifting of a family with bag and baggage from their ancestral homes. There was no provision for transportation of domestic animals, although almost all of them had agro-based living.
Since the project colonies were not in their choice of selection, till today many of them did not even develop the allotted plots for their resettlement in the colonies. The allotment of 5 to 6 decimal size plots to each eligible household was not enough for living and keeping livestock in the colony. Further, there was no house building assistance. Because of these problems many resettlers took more time to move to the colony.

**Feeling in Resettlement Colony and Clusters**

Even after more than 20 years of stay in the resettlement colonies and clusters, the displaced families especially the first generation oustees do not feel comfortable. They say that life was more happy and peaceful in their old villages. Out of total 103 displaced households 44 per cent households do not have the friendly atmosphere, 25 per cent households have feeling of powerlessness and 18 per cent households have feeling of break down of normal life in and around the colony /quarter/cluster villages. In colonies and clusters the host villagers are quite hostile towards the resettlers. They still carry the stamp of oustee population and feel themselves rootlessness in their place of resettlement. It has been revealed that people those who feel comfortable in their place of resettlement are mostly MCL employees presently residing in the MCL staff quarters. Their life style is different and they are now acclimatized with the routine industrial life in MCL colony. However, people those who reside in the colony and clusters are feeling deprived in many respects. Many do not have adequate space for leading their agro-based life. The colonies do not have adequate civic amenities as promised to them by the MCL authority at the time of displacement. The main problem is access to safe drinking water and increasing air pollution. Also, people feel deprived of easy access to common property resources like village forest, fruit bearing trees, grazing land, etc. that subsidized their cost of living to a considerable extent by providing them with fuel wood, food items and animal food free of cost.

**Status of Rehabilitation**

From the total 220 sample households at present there are 1850 persons. Out of which 1363 are adult persons above 18 years age and of them there are 513
male persons in economically productive age group of 18-60 years. Out of total 513 adult male persons in economically productive age group of 18-60 years only 19.69 per cent have got project-based regular jobs, 48.15 per cent are working as contract wage labour under the contractors, 5.85 per cent allotted shops in the market complex of NTPC to pursue their own business and another 0.97 per cent have been given some cash assistance to start their business. But none among the oustees has been given any assistance for land-based rehabilitation.

It is found from household survey data that only 90 adult persons from the displaced families were given training by the project authority for project-based jobs. Apart from that 33 persons were given vocational training for self-employment. This clearly shows that all male adult persons of the displaced families could not be rehabilitated by the projects. These two projects although contributed directly towards economic development of the state and country in general, they failed in protecting the economic interests of the people who made direct sacrifice for the projects.

**Impact on Land-based Living**

Before land acquisition/displacement almost all the villagers had access to variety of government land such as forest, grazing, pasture, temple, rock, water and lands under common property resources i.e. pond, well, school, village community well, river, canal, public road, government institutions, etc. But after land acquisition/displacement while the displaced villages lost all the lands the affected villagers are still left with some lands.

**Government Land**

The plain government lands are primarily good plots for the construction of village road, government and non-government institutions i.e. school, college, hospital, panchayat office, NGO office, trusts, etc. Prior to the projects, there was plenty of plain land for such developments to take place. But after land acquisition by the projects the state government has been facing problems to initiate such developmental activities in and around the affected villages in Talcher and Kaniha area. The other lands in and around the CPRs either being acquired completely or partially by the projects. As a result, the schools do not
have big playground or do not have scope for further enhancement, size of cremation ground has been diminished and side area of road and canal has also been narrowed down in many places.

**Forest land**

Prior to projects, forest land was everybody's property with negligible control and restriction of forest department. Before land acquisition village community was its primary stakeholder not the government. After land acquisition community's access, control and use of forest land has been restricted by the government and now the government acts like the primary stakeholder of the forest land. So the village community as stakeholders is worst sufferers after the project came over. While the colony project settled community (CPSC) do not have access to the forest lands, the cluster self settled community (CSSC) though do access the forest land they do not have community rights over forest land as it was in the past. Now both the communities have conflict with their host villagers for sharing forest land. The acquisition of grazing lands has not only generated adverse impacts on wild and domestic animals but also that has limited the geographical length of the affected villages.

**Temple Land**

The temple lands have been acquired by the project through government authority without adequately replacing with another piece of lands or religious structure. In some cases landed properties in and around the temples were acquired without affecting their sacred structures. This has resulted in loss of temple assets causing disruption of normal religious activities.

**Impact on the Private Landholding Pattern**

After displacement, there has been an increase in number of landless category people and decrease of large, medium, small and marginal categories of landholders in both MCL and NTPC affected /displaced villages. Before land acquisition many marginal farmers were at the same time share croppers and agricultural labourers. They used to make their bread and butter through cultivation, share cropping and agricultural laboring and also by cultivating encroached government land. But after displacement many of them have been
deprived of these opportunities and have slipped into poverty line. The small farmers have been cultivating and share cropping on the lands of those who have got jobs and have settled in the NTPC and MCL quarters and elsewhere. However, it is observed that while the marginal farmers have almost become landless labourers, the small farmers are now turned into marginal farmers. Almost all medium farmers of sample villages are found to be substantially affected farmers. In spite of that many among them still prefer to preserve their status of land holding, although agriculture as such has now lost its sustainable status due to increasing pollution and desertification of land in the region. The sharecroppers, marginal farmers and landless labourers used to depend on these large farmers. But after land acquisition there are very few large farmers who hardly cultivate their land and if cultivate they hardly require wage labour for their land cultivation. In fact, neither the farmers can afford to hire wage labourers nor the traditional wage labourers can now get adequate wage work in the agricultural land under the changed circumstances. After land acquisition, the size of landholding of the NTPC and MCL affected households has been markedly decreased. Before land acquisition the farmers those who had more Sarada-I and Sarada-II lands were in better economic status than those who had Sarada-III and Taila lands. Interestingly, major portion of the total affected/acquired private lands were Sarada-I and Sarada-II. Now the oustees are left with mostly Sarada-III and Taila category lands in the sample villages. So, after land acquisition the farmers generate less income from the left out inferior type of lands. Before land acquisition the farmers used to have different types of crops such as cereals (mostly paddy), pulses, oilseeds, vegetables and cash crops. But after land acquisition they have almost stopped cultivating oilseeds and vegetables. Besides raising different crops the farmers had used their agricultural lands for raising grass and fodder for the livestock, developing kitchen garden, horticulture, dairy farming, fishing and the like. But now the left out farmers in the village hardly enjoy these multiple use of lands.
It is quite obvious that when there is land acquisition, there will be increasing landlessness of land-loser families. Displacement-induced landlessness has come along with the impact of land alienation, decapitalization and pauperization of the affected farmers in both NTPC and MCL region. So, mere understanding of economic calculation of substantial increase and decrease in the size of landholding is not sufficient to explain the effects of landlessness in the sample villages.

Impact on Livelihood

The earlier sources of livelihood such as land, forest, trees, kitchen garden, seasonal employment, agricultural wage labour and caste occupations are decreasing fast in and around the villages after land acquisition. While the project affected villagers miss their earlier sources of livelihood, the displaced villagers have been totally cut up from these after displacement. Somehow caste based hereditary occupation was continuing till land acquisition by the project. But after land acquisition the oustees have almost lost their traditional occupation. For instance, Dhobas as washer men hardly find their clients in the colony and cluster villages. They also do not find village ponds for washing the clothes of others. Since their ponds have been acquired and their client has been dispersed into different places by the project, they cannot carry on their traditional occupation in the colonies and clusters. Similarly, the fishermen used to do fishing from river and village ponds for their livelihood. But the water sources are being polluted by the mining operation and fly ashes. In fact now it is very difficult for them to survive on fishing.

Impact on Caste Behaviour

Weakening of mutual inter-personal behaviour and neighborhood relationship and increasing compartmentalization or competition among the caste groups, assertiveness or political unity among them, claims for equality with or superiority than other etc are some of the changes have been noticed among the caste groups after land acquisition and displacement. However, such changes in the caste structure have generated many latent positive effects also. The weakening of inter-caste and village solidarity has its positive effects on the age old caste
hierarchy and rigidity of the old caste system. It is also the fact that all castes are busy making their livelihood forgetting their stiff caste difference.

Impact on Family

After land acquisition and displacement, joint family and extended family were disintegrated due to many factors such as conflicts over sharing of compensation money, sharing employment facility, early marriage for project benefits, loss of joint property, deserting parents and other brothers by employed sons and the like. But some remaining family members have also developed joint family structure after staying together more than twenty years. Similarly, even though some married sons have got jobs and contractual engagements, they do not have house or quarter to live separately. More so, in some cases the earning is not adequate to live separately. Hence, they are living with their parents and other siblings in the joint family structure under compulsion. The mutual cooperation and family bond between the project employed sons and the left out family members has, however, decreased over the years. It is primarily due to economic stress and strain and the allurement of rehabilitation package.

Health Status

Now more people fall sick, almost one person on an average from every displaced household on every fortnight. Many among them suffer from other non-communicable diseases like cancer, paralysis, rheumatism, arthritis, diabetes, hypertension and heart diseases, which were little known diseases in the region in the past. Many fall into the debt trap because of increasing sickness and morbidity level. Non-access to health card facility, occasional health camps, shortage of drinking water etc further deteriorate the health conditions of the affected households. Now many people are found affected by deadly and chronic diseases like tuberculosis, asthma, lungs disorder, jaundice, heart ailment, cancer, diabetes, blood pressure, diarrhea, dysentery, etc. Now malaria in the region occurs in endemic form.

Impact on Women and Weaker Section

After displacement and land acquisition, the poor people, women, widow, children, handicapped, old parents and grandparents, landless labourers,
scheduled castes, scheduled tribes, etc. are found to be more susceptible to hardships. They are less able to reconstruct their lives vis-à-vis other categories of oustees. The women in 90 per cent of the sample households used to contribute to family's livelihood in the past. But it is only 30 per cent at present after displacement. The women's contribution to families' livelihood has been drastically reduced. Now only a few women are engaged in the self help group activities and project-based contractual engagements. But they do not have any significant contribution to the family income. Right from the survey time to resettlement, there was no formal women forum to voice their issues, concerns and grievances in both NTPC and MCL area. As a result, the awardees and beneficiaries of compensation and rehabilitation were primarily male members and jobs and assistance were given to the male heads. Lack of access to well and water tap, dropout of girl child from school, early marriage, dowry demands, non-availability of toilet facility, psychological stress, malnutrition etc are the other observable problems found among the women oustees residing in the colony, cluster and affected villages.

Cultural Change

Before the MCL and NTPC came into being, the economic structure and culture was inseparable and complementary to each other with composite character. This cultural cohesiveness and conscience of the PAFs were deliberately disturbed by the projects. The foundation on which their collective conscience rested was first disrupted then captured. The culture keepers and culture takers were dispersed in different resettlement areas. As a result, the physical boundaries of cultural ethnicity was not only crossed but also got replaced with cultural others. The displaced families have lost their regional identity. Now the mega mining and power projects with modern technology are fast eating into the roots of the grassroot organization like civil society, Mahila Mandal etc, social capital like kinship organization, Harinama group, Sankirtan Mandali, Bhagabat Gadi, Ramayana Gadi, etc and social property like festive location, local quacks, play grounds etc and disrupting the common property resources like ponds, cremation grounds, community centres (including drama pandal, marriage hall
and youth club), temple, deity structure, seating arrangement under trees, playground, grass land, waste land, grazing ground, etc.

Government Facility

While the displaced villagers in the MCL area do not have access to the government facilities, the affected revenue villagers of NTPC area have been benefiting such facilities from the Orissa Government. While the MCL displaced villagers have been trying to achieve revenue village status by political pressure, the NTPC project affected villagers have been trying to get BPL benefits from the government. Interestingly a conception of new poverty is making in the affected and displaced villages to which the government's BPL criteria cannot be fit into. It is a matter of concern that the displacement specialists must look into.

Pollution Impact

The mining overburden on sites of the projects covers up agricultural land, encroaches on forest land and causes top soil loss and affects drainage, soil micro-organism, vegetation cover and water table. The abandoned opencast mines (left unfilled) are found to be converted into the depository of rain water and that have now become the breeding ground for mosquitoes.

In NTPC region the Tikira River after getting polluted by the ash pond water in Derang area drains into Brahmani River. Thus, the water sources stemming from these two rivers are being polluted. Brahmani is the second largest river in Orissa and it is the lifeblood of agro-based people residing on either side of the river banks since time immemorial. The people depend upon the water sources of this river for their multipurpose use such as irrigation, bathing, washing, drinking and tending of domestic animals, etc. In the MCL area, coal dust, mines overburden and other wastes released from coal washeries of opencast and under ground mines pollute the canal, river, tube well, dug well, etc. This compels the affected/displaced villagers to depend upon the MCL and NTPC provided water tanker service for potable water. However, that water is very meager and supplied irregularly and that is also not free from pollution. The intensification of mining activities in the region has affected the ground water table and it is going down deep into the earth, thereby causing acute water scarcity during summer.
The air pollution is caused due to the coal dusts which are more often released into air by mining operation, through thermal chimney and during transportation of coal by vehicles, train and conveyor belt. Transporting of coal by trucks, burning of coal at homes, and blasting of mines by dynamite abet pollution problem of the region by releasing more toxic gases like sulfur dioxide, nitrogen oxide, carbon dioxide, etc. Neither the project authority nor the government authority bothers much to control the increasing level of pollution and consequential temperature increase in and around the project locality.

**Major Problems due to Resettlement Effects**

The displaced and affected households have encountered many problems after land acquisition and their displacement from the project area. The major problems reported by the people are: increasing landlessness (68 per cent), non-availability of forest produce (70 per cent), increased morbidity (55 per cent), loss of access to PDS facility (90 per cent), water scarcity (98 per cent), air and water pollution (100 per cent), loss of access to higher education (80 per cent), loss of access to government facility (39 per cent), conflicts with family members (60 per cent), conflicts with host population (39 per cent), adverse impact on planning of marriage, education and health (89 per cent), increased sickness of family members (55 per cent), increased indebtedness (70 per cent), loss of interest and courage to invest in land and business (60 per cent), uncertainty of future plan (75 per cent), poor maintenance of infrastructures and halt in developmental work (45 per cent). This has further aggravated social problems like conflict with neighbours, difficulty in arranging bridegrooms for the unmarried daughters, increased domestic violence on women, increased prostitution, increased gambling, increased consumption of liquor and theft of property in the resettlement colony, cluster and affected villages. Many affected senior people blame that the projects have made many unemployed youth demoralized and dishonest. They also blame that projects have made many unemployed youth coal thieves as some of them take away coal from coal depots and sell in the market.
It is not quite comfortable on our part to say that the project affected families have improved or at least restored their previous standard of living after land acquisition /displacement. Development-Induced Displacement is not just structured with two prominent Ds but so many Ds follows after that such as distortion, division, disparity, disentitlement, destitution and disempowerment. These concepts are interrelated and they follow one another due to displacement effects such as distortion of the facts by not giving adequate information about project activities, division of people for project benefits by the process of inclusion and exclusion policy provision, disparity in accessing project benefits by depriving others, disentitlement to land, water and pollution free air by land acquisition and pollution, destitution of the PAPs/DPs by destroying their sustainable sources of livelihood and disempowerment of the affected /displaced by disrupting their traditional organizational set up and by not treating their displaced villages as revenue villages.

This study is not being influenced by the dam centric approaches. For last one decade or so, although Orissa has emerged as 'Power House' of the country because of its huge coal deposits, there have been very few substantial works on coal mining and thermal power projects and their effects on displacees and ecosystem people. Since there is no serious work on protest movements of ousted people in industry and mining projects, the findings of the present study can inspire the researchers to study further on these projects in more details. Probably today's strong people's movements against industrial projects like Kalinga Nagar or Kashipur are the fallouts of people's predicaments in the public sector projects like MCL and NTPC that failed to make win-win situation for both the losers and gainers.

So far hardly any study is being done seriously on the basis of Downing's approach to displacement. In this context, some of our findings are corroborated with his argument. Many studies on NTPC and Coal mining projects conducted by the different researchers like Pandey (1998), Satyanarayan (1999), Reddy (1992), Saksena and Sen (1999); Dhagamwar, Dey and Verma (2003) and Verma (2004) in India almost corroborate to our present findings.
Suggestions
Since the nation on the whole is benefited from the various development projects, it should not only allot the government land to the oustees, but also should provide jobs to the affected population on rehabilitation grounds in the absence of project jobs. When the oustees purchase agricultural land from the market the project should bear the cost of registration fees and facilitate the sale deeds. There should be a grievance mechanism comprising concerned NGOs, civil society, judicial experts and representatives of affected population for proper calculation of the compensation. Further land Acquisition Act and Coal Bearing Act should be amended in favour of the displaced /affected people. There should be a state sponsored women forum to voice their issues, concerns and grievances in project area. Policy provision should be there for gender equalization of R&R benefits. Provision should be there for prior information and prior consent of affected villagers for any project activity to take place starting from notification to resettlement stage. Revenue village status must be given to both colony and cluster villages just after displacement take place. The extent, nature and severity of vulnerability of the weaker sections must be analyzed by the concerned government and project authority in detail for their rehabilitation.