

**IMPACT OF DISPLACEMENT BY UPPER KOLAB & UPPER  
INDRAVATI HYDEL PROJECTS ON TRIBAL LIFE AND  
LIVELIHOOD IN REHABILITATION COLONIES**

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## ABBREVIATIONS USED

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CBO: Community based organizations

DP: Displaced Person

NGO: Non-govt. organizations

RA: Rehabilitation assistance

SCSTRTI: Scheduled castes and scheduled tribes research and training institute

SHG: Self help groups

UKP: Upper Kolab Project

UIP: Upper Indravati Project

## EXECUTIVE SUMMARY

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Large scale irrigation and power projects contribute immensely to the infrastructure base of the country and contribute directly to the quality of life of farmers and production of food materials. Most of such large projects, however, tend to affect the lives of the project affected people who contribute their land and property for setting up such large projects. Many such projects affect the lives of the vulnerable tribal people and destroy their already fragile resource base and lead to extensive impoverishments and pauperization. Two such large irrigation and power projects in the backward tribal dominated districts of Odisha, the Upper Indravati Project (UIP) and Upper Kolab Project (UKP) are constantly drawing attention due to media reports and court cases highlighting the sufferings of the tribal people affected by these two projects.

The Scheduled Castes and Scheduled Tribes Research and Training Institute (SCSTRTI) in Odisha is mandated to initiate research and training on issues affecting the lives of the tribal people in Odisha, and decided to commission a study to look into the impact of these two projects on the lives and livelihood of the tribals displaced by the two projects.

The study was conducted with a focus on the displaced tribals living in Rehabilitation Colonies and large habitations. Samples of 200 tribal DPs were selected from each of the two projects and information pertaining to their socio-economic and cultural aspects was collected using both quantitative and qualitative methods. Analysis of information was conducted focusing on the socio-economic status of the DPs before and after displacement to highlight the impact of the project related displacement on the life and livelihood of the tribal DPs.

Displacement occurred in the Upper Kolab Project between 1984 and 1987. **The DPs were compensated for their land at the rate of Rs.500 to Rs.2000 per acre of land.** Rehabilitation colonies were created for resettling the DPs near Kotpad town and over 500 DPs resettled there. The rest decided to resettle on their own and received the Rehabilitation Assistance amount of Rs.14040/-. The DPs in rehabilitation colonies were given homestead land and about 2 to 3 acres of cultivable land.

Displacement in the Upper Indravati Project was spread over the years 1989 to 1997. Land was compensated at the rate of Rs. 500 to Rs.2500 per acre. Rehabilitation Assistance amount was fixed at Rs. 20075 in the first phase and was later increased upto Rs.70000/- in the last phase. In addition, Living Allowance amounting to Rs.6000/- was also paid to all DPs. All the DPs decided to make their own arrangement for resettlement.

### **The findings of the study pertaining to different aspects of the socio-economic status of the tribal DPs are as follows:**

*Ownership of homestead land has increased from 52% to 82%. The status of housing has improved now both in terms of size as well as no. of rooms. The quality of walls, roof and floor has also improved after relocation. Water facilities has improved and most people now draw water from deep tube wells and some have piped water facilities. **About 32% of houses now have toilet facility.** Almost houses of DPs now have electricity connection.*

*The average area of homestead land has improved marginally from 0.24 acres to 0.27 acres. The area of cultivable land has decreased from 4.29 acres to 1.6 acres. The area of irrigated land owned*

by DPs has decreased from 1.27 acres to 0.79 acres. The area of unirrigated land has decreased from 3.02 acres to 0.81 acres. Operational land holding of the DPs has decreased from 1.06 acres to 0.67 acres. Due to reduction in the size of land after displacement, the proportion of landless has decreased from 30% to 15% but the proportion of marginal farmers has improved drastically from 22% to 78%. The land holding status of most small, medium and large farmers has come down and a large majority of them have been rendered marginal farmers after displacement.

The average annual income of the sample of DPs has increased from Rs.9473 to Rs.54763 after displacement. Besides, the percentage contribution of different items to the annual income has also changed after displacement. The contribution of agriculture has decreased from 59% to 39%, The contribution of two other major items, NTFP and Fuel wood has also decreased from 14% and 11% to 1% and 5%, respectively. The contribution of labour (agricultural and non-agricultural labour) has together increased from 7% to 20%. The contribution of jobs (both pvt. and govt. jobs) has increased from 0.3% to 12%. Stone chipping work, which did not feature at all before displacement, now contributes 3.3% to annual income of the DPs.

Paddy is the major crop and its production has increased very marginally in the resettlement area. Ragi is the second major crop and its production has decreased moderately. Niger is another item which was produced earlier in a major way but this has almost vanished from the area. Maize has increased its presence to some extent. Cutting is another locally popular crop which has maintained its presence. Many crops which were mainly grown in dongars and were popular earlier but have decreased now include suan, oil seeds, vegetables, pulses, etc.

Women and men participate in work equally. Women participate in work and income in about 94% of the DP families and their contribution to family income is estimated to be 38%. Migration was reported in about 10% of the DP families and the average number of days of migration was reported to be 144 days. The income from migration was reported to be average of Rs.21324/-. Men migrate for mason work, painting work, farming and tailoring work. About 6 women also migrate out for work and the average income earned by them is about Rs.10467/-.

The DP families are saving different amounts in cash at home, in SHGs in their villages and also in the form of gold. The average amount saved and the highest number of people saving money is maximum in cash, followed by SHG and least in the form of gold. A maximum number of 243 families have saved an average amount Rs.2887 in cash at home.

Whereas only 1 DP had taken loan before displacement, about 20% of the DP families have currently taken loan. Almost all the loans have been taken for productive investment and only 5% have been taken for consumption. The average amount of loan is Rs.23343/- and most of the DPs have taken loans from banks. 86% of the loans have been taken for investment in agriculture.

The average family expenditure has decreased after displacement for food, clothing, social functions and health, whereas the expenditure has increased most for agriculture, and marginally for transport, house construction and repair, education, electricity, cooking fuel, and communication.

The availability of food to DP families has improved after displacement and the proportion of those having enough food has increased from 67% to 95%. About 5% are having two meals per day as opposed to 29% having two meals per day before displacement. The pattern of food consumed by the DP families has also changed in favour of rice from ragi steadily in breakfast, lunch and dinner.

*The proportion of DPs owning any livestock has come down marginally from 92% to 87%. Due to various reasons, the proportion of people keeping different livestock has decreased marginally, and the mean no. of each animal possessed by the DPs have also decreased for cows, bullocks, buffaloes, goats and sheep, pigs, and except for poultry birds.*

*Possession of clothes has increased drastically and whereas all DPs had within 2 pairs of clothes earlier now almost of them have more than two pairs of clothes.*

*Overall, there is no sign of any major health problem in the area after displacement and the DPs did not suffer from any major problem. About a third of the DPs are suffering from some health problems currently. Regarding the current health seeking and utilization of health services, it is not a good situation and there is a need for focusing attention on building awareness among the DPs and also to streamline the health services in the area.*

*Distance to school has decreased marginally after relocation. Attendance of school has gone up from 30% to 69% and attending school by girls has increased from 21% to 59%. Majority of those not attending school do not mention any specific problem. In large majority of schools (95%) teachers are coming regularly. The level of education has increased and there are many children in secondary schools and colleges. Drop out was reported in 34% of families and the main reason was stated that the child has to go for work. There is a need for convincing people about the advantages of education and there is a need for awareness about the different opportunities and facilities for education of tribal children.*

*While previously DPs were getting variety of products from the CPR, now it is mainly limited to fuel wood, fodder/ grazing, few fruits and berries, and tubers in some places. The collection from CPR after displacement is about 30% of the previous collection. Now they have to go about 2 km. for collection of fuel wood or for grazing cattle. About 42% reported conflicts over access to CPR, mainly collection of fuel wood and grazing of cattle. This was reported more in the Rehabilitation colonies of UKP.*

*With regards to the role of women in both household and community affairs it is seen that most of the household decisions are taken jointly with women playing an equal role at the household level. However, only about 27% play any role in community level decision making. About 40% of women hold positions in community level organizations and work as community level workers.*

*Regarding social disarticulation, it is observed that due to moving to a new place, DPs are unable to interact with their kins, relatives, friends, co-workers, local leaders, etc., whereas they are able to continue their relationships with customers, service providers, money lenders, etc. Over 26% of DP family members are participating in some community level organizations in the new place. Most of the DPs in the new place are able to organize cultural festivals. Three types of social activities are mainly affected due to displacement, getting loans, observing festivals, and resolution of conflicts. The positive effects of shifting to a new place include getting information about all important matters. This is also due to enhanced access to mass media. Since shifting occurred 30 years back, DPs have been able to rebuild their social networks and are able to get support in agricultural activities, social functions and festivals and in other activities now.*

*Reduction in the size of land is the main reason for loss of social status for majority of DPs. Due to this loss, majority of DPs (60%) are feeling marginalized now whereas about 40% are feeling normal.*

*Most of the DPs reported that they initially felt shocked, stressed and depressed due to displacement from their old place. However, majority of them felt charged and dealt with the situation with zeal and courage whereas minority felt broken and demoralized. Minority of DPs received help from their neighbours, friends and kins on occasions such as family function, going to govt. office for some work or for some health hazard in the family.*

*DPs focused on different activities in the process of reconstructing their life and livelihood. Some started with arranging land for house construction and others started with arranging land for cultivation. About 17% had bought land for house construction before displacement whereas about 82% arranged land after relocation. A third of the DPs arranged land by self whereas others took the help of kins and relatives, project staff and local leaders. The size of land purchased was limited by high price of land, lack of funds with the DPs and lack of suitable land in the area. About 79% of the DPs used the RA funds in buying land for house whereas others arranged funds through loans or by engaging in wage labour or selling assets. DPs faced problems in house construction due to shortage of funds, shortage of labour and shortage of house building materials in the vicinity.*

*About 96% of the DPs faced problems in finding a livelihood. The problems faced includes shortage of land for farming, shortage of wage employment opportunity, shortage of forest products and shortage of livestock. To surmount these problems the DPs took the help of local contractors, local labourers, local leaders, and local landlords.*

*Those who had land resumed farming. About 82% of them faced problems in starting farming. A variety of problems were faced by the DPs, which includes shortage of water for farming, shortage of suitable land for cultivating favourite crops, shortage of land in the area for leasing in, shortage of funds, and the high expenditure of cultivation.*

*About 66% of the DPs approached the local administration for taking help of different development schemes and programmes such as housing scheme, toilet scheme and other suitable schemes. A minority of DPs received support from local NGOs for programmes such as piped water supply, toilet, solar energy, and agricultural support. DPs undertook a mix of strategies and undertook both cultivation and wage earning to earn sufficient income. Land being limited, they took to farming during the monsoon and then in the lean season they took to wage earning and thus tried to enhance their income.*

*DPs received support from different development and welfare schemes of the central and state govt. in improving their condition. These schemes include support in the area of making their economic condition better and also provide them with much needed food, work, income, health benefits, nutrition support and also insurance against risks and failures. They are getting food and nutrition, work opportunity, house building assistance, health services, child development services, insurance against health problems and crop failure, and other support.*

**Based on the above findings, the following conclusions were made:**

- *Comparison of the socio-economic condition of the DPs before and after displacement presents a mixed picture. **The quality of life of the DPs currently is better than their life before displacement, but this is due to the help received from the welfare programmes of the govt. and not due to any sustainable source of income.***
- *Land holding of the DPs has reduced a lot after displacement. There is virtually no access to the CPR from which they were earlier getting a lot of income. Income of the DPs is more or less same*

as their income before displacement, but a large part of the current income is derived from unsustainable sources such as labour, stone chipping works, and variety of support received from the welfare programmes of the govt.

- Land is the main resource in the tribal economy and the size of land has decreased a lot. The size of irrigated land has also diminished. Income from agriculture has reduced a lot.
- The DPs were earlier getting food, fodder, fuel, timber, and a variety of NTFPs from the CPR, but now they are getting fuel wood only.
- DPs have found alternative sources of income such as wage labour, both on and off the farm, and stone breaking work, and have been able to increase their income through these unsustainable livelihood avenues.
- Livestock is still very popular but is being carried out on a smaller scale compared to the previous situation and does not yield much income.
- Contribution of forest resources has plummeted and except for fuel wood (and that too of inferior category) the CPR base does not yield anything substantial.
- The youth are migrating out of the state to greener pastures and are earning and remitting home higher amounts through semi-skilled and unskilled work as mason, painter, garage mechanic, tailor, etc.
- Most farmers have bought plain lands and are growing paddy in kharif. Those who have access to uplands are responding to the market demand for cash crops such as maize which is fast replacing ragi, alsu, suan, etc. The tribal food menu is fast mainstreaming to rice and curry, replacing the previously popular "mandia pej".
- The current status of food and nutrition and clothing is better than their pre-displacement status.
- Dignity of labour shows strong roots and even school and college students, both boys and girls, take time out to engage in labour work to respond to family economic situation or to fund their own education and other expenses.
- Small business is almost invisible, and even women SHGs are not very active and do not contribute visibly to family income.
- The DPs are getting a variety of livelihood support from the development and welfare schemes of the govt. which have come up over the years and these have together contributed to their land holding status (through FRA), income (through schemes such as NREGA, old age allowance, widow allowance, disability allowance) and have also served to reduce expenses in housing (IAY, SBM), health expenses and insurance (JSY/ Mamata, labour cards/ health insurance/ BKKY/ RSBY), and food and nutrition status of the common people as well as the children, adolescents and pregnant and lactating women (NFSA, ICDS, MDM). Enhancement of income and saving on expenses through these schemes have contributed in a major way to the current socio-economic status of the DPs. Had it not been for the development and the welfare schemes of the govt., the condition of the DPs would be very bad today.
- The emergence of abundant wage earning opportunities with the growing economic development activities such as construction of buildings, road construction, industries, etc., are contributing to the income of DPs through labour work.
- If the DPs are in a good state now, it is not due to the approach and strategy of the project authorities towards the DPs, but because the DPs made their own effort to rebuild their lives and adapted to the situation and it took them more than two decades to get over the loss due to displacement.

- While the study attempts to compare socio-economic status of the DPs before and after displacement, in the final tally the current status of the DPs comes out as marginally better compared to their pre-displacement status. However, their status has improved recently since the last decade only, and their status was very bad in the first decade after displacement.
- *Just after displacement, the DPs were in a very bad state with no house, no land to cultivate, no forest resources in the new place, and no source of income to bring up their family. They toiled very hard to make ends meet and went through tremendous mental tension and physical labour. This took its toll on the DPs and some of them perished under physical and psychological stress.*
- The comparison of pre-displacement and post-displacement situation after 30 years hides the real effect of displacement and the trying times through which the DPs went through. The negative effects of displacement are hidden under the positive effects of the govt. development and welfare schemes and the positive efforts made by the DPs.

### **CONCLUSIONS FROM THE IMPOVERISHMENT RISK ANALYSIS**

- The condition of housing is better compared to the previous condition and there is no homelessness among the tribal DPs
- There is extensive landlessness in terms of reduction in the size of land holding and operational land holding also. The contribution of agriculture to family income has reduced.
- There is extensive joblessness also, as due to lack of opportunities for cultivation, DPs are engaging in labour work, sale of fire wood and stone chipping work. However, these employment opportunities are neither stable nor sustainable and are not sustainable sources of income.
- There is virtually no access to CPR in the resettlement habitations and DPs are not getting anything from the CPR besides fire wood and grazing opportunities. Conflicts have occurred with host population over their access to CPR in multiple resettlement habitations.
- Due to landlessness and loss of access to CPR, the DPs have been marginalized to a large extent. Change of their identity from farmer to labourer has affected their self esteem and confidence and lead to trauma. The DPs feel marginalized due to this.
- As the DPs had to relocate and did not get suitable site for settling down with kins and relatives, there was extensive social disarticulation just after displacement. However, as over 30 years have passed meanwhile, the DPs have been able to re-establish contacts with their kins and relatives and have also formed new groups in the place of resettlement and there is no feeling of social disarticulation anymore.
- Health status of the DPs does not show any morbidities due to displacement and settling in a new place. The health services are better in the new place of resettlement but needs to be strengthened further. Nutrition status is better after displacement but there is not much diversity in the diet of the tribal DPs compared to previous dietary habits. This is linked to reduction in cultivation and consumption of a variety of millets and pulses which was prevalent before displacement but is not possible now.
- The level of education has improved after displacement and DPs are giving importance to education. However, drop out rate is still high and needs to be addressed.

## **RECOMMENDATIONS FOR ALL PROJECTS INVOLVING DISPLACEMENT OF TRIBALS**

- *Clear and unambiguous information regarding the probable loss and the rights and entitlements of the tribal affected population needs to be communicated widely by appropriate authority through written documents and other suitable media. Lack of this information will create a scope for misinformation and exploitation of the tribal DPs by touts and middlemen and other vested interests. Public hearing should be done in an appropriate way for the tribal DPs.*
- *Before notifying for land acquisition among the tribal DPs, all holdings with customary rights on unobjectionable land needs to be settled with the tribal land holders so that they are able to get due compensation for their loss.*
- *Land based resettlement and rehabilitation has to be made mandatory for the tribal DPs in all projects. DPs need to be resettled in agriculture, allied activities, animal husbandry and fishery activities with all support arrangements.*
- *Mere provision of compensation and rehabilitation assistance is not rehabilitation. The rehabilitation and resettlement action plan has to incorporate measures for complete restoration of income of the tribal DPs and till such restoration is done the rehabilitation process cannot be considered complete. A proper end-line evaluation has to be conducted to generate proof that income restoration has been done.*
- *A social development officer has to be involved in implementation of rehabilitation activities so as to promote inclusive approach and to ensure social justice and equity.*
- *While resettling tribal DPs, their cultural habits and practices need to be recognized and arrangements need to be made to resettle them in groups with their own kins and relatives.*
- *A proper MIS system has to be set up from the beginning of the project. Besides input and process indicators, the MIS should also collect data on outcome and impact indicators pertaining to the economic status of the DPs.*
- *M&E activities has to be an integral part of all projects involving displacement of tribals and should collect data periodically till the completion of all rehabilitation and resettlement activities.*

## **RECOMMENDATIONS FOR MITIGATING IMPOVERISHMENTS IN UIP AND UKP**

- *Detecting any suitable govt. land in the vicinity of the resettlement habitations and recovering it and allotting it to the DPs for use. Surplus land of large farmers in the command area of these two projects can also be detected and allotted to the DPs for farming.*
- *Extensive irrigation support to all the DPs everywhere and promoting integrated farming for climate proofing*
- *Implementing intensive watershed management measures such as gully and contour bunding, check dams, farm ponds, etc.*
- *Providing agricultural support to all the DPs in terms of information, seeds, fertilizers and pesticides, technical assistance, financial assistance, organizing them into Farmer Producer Organizations, marketing support, etc. They should be linked to the Millet Mission, ATMA, KVK, etc.*
- *Promoting animal husbandry among the DPs and providing all support for their livestock.*

- *Promoting fishery in the two reservoirs in a big way and providing all support and assistance to the DPs to engage in fishery activities.*
- *Promoting eco-tourism in the area which will generate employment and business opportunities for the tribal DPs.*
- *Providing extensive skill training to the tribal DPs in skills which have market demand and supporting them in suitable placements or in related self-employment ventures.*
- *Protecting the barren land and degraded forest patches for regeneration of trees*
- *Creating food forests with dense plantations in small patches following the Miyawaki model.*
- *Carrying out community building and community mobilization activities in the resettlement clusters for rebuilding networks of DPs.*
- *Carrying out suitable activities for building trust among the DPs and the host populations and creating a forum for conflict resolution.*
- *Creating more health facilities with adequate infrastructure and manpower for responding to the health needs of the DPs in isolated habitations.*
- *Promoting cultivation of ragi*
- *Promoting organic farming among the DPs*
- *Awareness needs to be created about the multiple opportunities available for education of tribal children and career counseling needs to be conducted for educated youth also. More colleges are required in the govt. sector for providing affordable educational opportunities to the DPs. Awareness needs to be created on the stipends and concessions and other facilities available to the tribal students interested in higher education.*

# CHAPTER I: INTRODUCTION & METHODOLOGY

## 1.1 INTRODUCTION

Development induced displacement has brought several economic, social and environmental problems to the displaced people. Magnitude of people displaced and severity of the problems due to multipurpose dam projects is too high as compared to other projects in the country. During the last two decades of the previous century, the magnitude of forced population displacements caused by development programs was on the order of 10 million people each year, or some 200 million people globally during that period.<sup>1</sup> Thus, by their frequency, size, and dire consequences, development-caused displacements have become a problem of worldwide proportions. Development also leads to submergence of high quality of land, destruction of the watershed, disturbs the delicate ecological balance and distorts the surrounding environment, loss of wildlife, flora, etc. The tribal community which is largely dependent on natural resources, viz. land, forest and rights of common property resources and are otherwise vulnerable, are the biggest losers in such a context in the entire country, more so in the state of Odisha.

### 1.1.1 Development Projects and Displacement in Odisha

Odisha occupies a unique position among the Indian states due to a large tribal population. The tribal population of the state, according to 2011 census, is 22.85 percent of the state's total population. The state has the third largest concentration of tribals in the country. There are as many as 62 tribal communities including 13 primitive tribal groups. About 44.70 percent of the state's geographical area is known as Scheduled Areas which extends over 118 out of 314 Blocks in 12 districts. Majority of scheduled tribes live in hilly and forest regions which are mostly inaccessible and isolated. The tribal economy is largely subsistence oriented, unstructured and non-specialized.

Ever since the implementation of the First Five-Year Plan several development projects have been initiated in the state like multipurpose river valley projects- Hirakud Dam, Rengali, Upper Kolab, Indravati, Subarnarekha, etc. Large industries — Rourkela Steel Plant, NALCO, HAL and the like. Besides, several private sector projects have either set up or signed MoUs with the State Government to start their units which include industrial giants Tata, Jindal, Birla, POSCO and others. But what is painful is that these projects displaced large number of people, and tribals constitute a sizeable proportion of the total displaced people. Forest and life, people, livelihood, religion and culture of tribal people are inextricably blended. Acquisition of forest land for development projects directly leads to uprooting of tribals from their home and hearth. Between 1951 and 1995, as high as 713449.24 acres of forest land were acquired for different development projects and 44.34 percent were acquired only for dam projects.<sup>2</sup>

The findings of many studies relating to displacement and resettlement present a dismal picture. However, most of them have not been able to present an accurate picture of the socio-economic

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<sup>1</sup>Cornea Michael M (1997). The Risks and Reconstruction Model for Resettling Displaced Populations, World Development 25(10) 1569-1588.

<sup>2</sup>Fernandes, Walter. and Mohmd. Asif. 1997. Development-Induced Displacement and Rehabilitation in Orissa 1951-1995: A Database on its Extent and Nature, New Delhi: Indian Social Institute.

status of the oustees in the post- displacement period vis-à-vis their position in the pre-displacement era. Statistical data indicates that a large portion of the project affected families belong to the tribal groups. Many tribals had sacrificed their lives resisting development projects and displacement. There is no dearth of literature explaining Resettlement and rehabilitation as human rights violation and exploitation and explaining development practices in RR exercises. Even though there are elaborate policies on resettlement and rehabilitation of the displaced, livelihood concerns of the displaced and affected communities do remain as an ever continuing challenge for the community and the project authorities.

Two projects which involved displacement of tribals in large number in backward tribal districts of Odisha have been selected for studying the effect of displacement on tribals. The following two projects are described below:

### **1.1.2 Upper Kolab Project**

Upper Kolab Hydroelectric Project (UKP) is a multipurpose project in Koraput district which was executed to harness the water potentials of River Kolab. The Project was supposed to irrigate 47,985 hectares of agricultural land for kharif and little less for the rabi crop, in addition to 22,267 hectare by lift irrigation and generate electricity to a maximum capacity of 240 megawatt. The project began in 1976-77 and was completed in 1984-85 at a cost of Rs.160 crore (The original estimate was Rs.16.4 crore). The catchment area at dam site is 1630 square km. It is a straight masonry gravity type of dam with length of 630.5 meter and maximum height of 54.50 meter from the deepest bed level.

In this project total land submerged is 32,163 acres (Government of Odisha, 1981), out of which 21,870 acres are private land, 6,557.90 acres are revenue land and 189.95 acres are forest. The balance is rivers, nallahs, tanks, roads, etc.

### **Displacement**

The total number of families affected due to the construction of this dam, either fully (losing both house and land) or partially (part of house and land), were 13,095 families (50,771 persons) of which 2,127 families (8,830 persons) were dalits, 7,092 families (26,620 persons) were tribal and 3,882 families (15,327 persons) were from other caste.<sup>3</sup>

The number of families displaced and rehabilitated in Upper Kolab Project is 3,067 (1,431 ST families, 435 SC families and 1,201 OBC families). Of these, over 500 families shifted to Rehabilitation Colonies in Kotpad block whereas over 2600 families resettled on their own.

### **1.1.3 Upper Indravati Project**

The Upper Indravati Hydroelectric Project (UIP) is a multipurpose river dam project in Odisha, started in 1978. It is located on the trijunction of Koraput, Nowrangpur and Kalahandi districts. This project was initiated with the financial assistance of The World Bank. The combined reservoir formed by 4 dams and 8 dykes stretches up to an area of 110 square km. and was

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<sup>3</sup> Government of Orissa, 1981

designed to irrigate 109,300 hectares (later revised to 1.28 lakh hectares in 1994) of agricultural land and generate 600 MW of electricity.<sup>4</sup> Though this project had been approved by the union Planning Commission in 1978 and had obtained an environmental clearance in 1979, full-fledged construction began only after the World Bank's assistance had been obtained in 1985.

Due to the construction of this dam, 5448 families (total population of about 17,000) have been displaced from their home. A total of 97 villages (44 from undivided Koraput + 53 from Kalahandi) have been affected, with 65 villages fully submerged. Out of these villages, 31 villages were from Koraput and 34 were from Kalahandi. Moreover the Project acquired 32,530.87 acres of land, including 17,137.97 acres from Kalahandi and 15,388.90 acres from Koraput and Nowrangpur districts.<sup>5</sup>

## **Displacement**

Evacuation of people from the 65 fully submergible villages was started in 1989. About 10.68% evacuation took place in 1989, 16.85% in 1990, 21.68% in 1991, and 38.02% in 1992. About 9% of evacuation took place in 1993.<sup>6</sup> Out of the total 3,725 families displaced, 1,630 families are ST, 338 families are SC, and 1,557 families belong to general caste.<sup>7</sup> Later surveys indicate that about 5447 families were displaced and relocated in 19 blocks under 5 districts, of which Malkangiri has only 2 families and Rayagada has only 144 families (Koraput 1274, Nabarangpur 2291, Raygada 144, Malkangiri 02, and Kalahandi 1766)

### **1.1.4 Socio-economy of tribals in the study area**

In both Upper Kolab and Upper Indravati projects, maximum percentages of displaced people were tribals. The tribal economy is closely linked with the forests and forest products. The establishment of projects has caused rampant destruction of forests and large-scale submergence of forested areas. The people are resettled in plain lands reclaimed from forests and thus they are deprived of free access to forests. The economy of tribals, which was once dependent on forests, can no longer rest on it for substituting the livelihood of indigenous population.

In the tribal districts of Kalahandi, Nawarangpur and Koraput, the forests are an important source of food, fuel, fodder and other household items of daily use. Earlier the people bartered the product, which is not possible in the new settlements. Collection of forest products used to be a regular feature. Except during the rainy season, women used to regularly visit the forest for collection of fuel wood, seasonal fruits, roots and green leaves. Most of the products collected were domestically consumed while the surplus was sold.

But there has been a sharp decline in forest produce collection due to involuntary displacement. The percentage of people collecting fuel wood has come down from 97.18% to 93.06%.<sup>8</sup>, collection of minor forest produce from 96.48% to 87.20%, and other commercial items from

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<sup>4</sup> Garg, Saurav. 1998. "Resettlement in the Upper Indravati Project: A Case Study." in H.M.Mathur and David Marsden (ed) Development Projects and Impoverishment Risk, Delhi: Oxford University Press.

<sup>5</sup> Rehabilitation and Resettlement Unit, 1995. Community Based and Family Oriented Rehabilitation Action Plan of Upper Indravati Project, Kathiguda, Department of Engineering, Orissa.

<sup>6</sup> *Ibid*

<sup>7</sup> Dalua, A.K. 1993. Environmental Impact of Large reservoir Projects on Human Settlement. New Delhi: Ashish Publishing House.

<sup>8</sup> Ravindran, L, P.K.Panirahi and A.K.Mohanty. 1998. "Comparative Analysis of Economic status of people before and after Displacement in Orissa's Upper Indravati Project." *ASCI Journal of Management*, 28 (1): 80-100.

31.44% to 6.92% in case of Upper Indravati Project.<sup>9</sup> The main reason for the above is the sharp decline in forest area and the over-exploitation of forests for cultivation and for timber and fuel wood. There is overwhelming evidence that the displaced people have been pushed to lower level of economic status compared to their pre-displacement situation.

## **1.2 RATIONALE & OBJECTIVES OF THE STUDY**

In the discourse of development induced displacement Michael M. Cernea's **Impoverishment Risks and Reconstruction (IRR) Model** has clearly illustrated eight impoverishment risks. Out of these, three risks viz. landlessness, joblessness & loss of access to common property resources are directly signifying the livelihood issues as one of the key concerns of the displaced and affected communities as an after effect of displacement due to large projects. The tribal community which is largely dependent on natural resources viz. land, forest and usufruct rights of common property resources are the biggest losers in such a context.

Owing to loss of livelihoods, history of community-development project relation in Odisha is marred with suspicion and trust deficit. Many tribals had sacrificed their lives resisting development projects and displacement. There is no dearth of literature explaining Resettlement and rehabilitation as human rights violation and exploitation and explaining development practices in R&R exercises.

The same IRR model of Michael M. Cernea demonstrated that through Risk Reversal Strategies, a set of reconstructive pro-poor activities can be carried out to turn landlessness to land based resettlement, from joblessness to reemployment and from loss of access to Common Property Resources to restoration of community assets and services.

Later on R & R policies of the state and the country have given due emphasis to livelihoods making the development project authorities responsible for skill building, employability training and providing employment to the affected and displaced. Even though there are elaborate policies on resettlement and rehabilitation of the displaced, livelihood concerns of the displaced and affected communities do remain as an ever continuing challenge for the community and the project authorities.

Therefore, the entire issue of displacement and rehabilitation must be seen as a complex human problem having economic, social, psychological, cultural and spiritual dimensions and not as a merely administrative issue. Therefore, the present study makes an attempt to explore the various issues associated with tribal displacement and rehabilitation due to the Upper Kolab and Indravati dam and irrigation projects in Odisha.

### **1.2.1 Objectives of the Study**

Keeping the aforesaid perspective in view and looking at the sufferings of the tribals in particular, the present study was undertaken to find out the status of the displaced tribal families in the post project period, particularly whether the previous level of income and livelihood has been restored or not, and also to identify the factors responsible for non-restoration of the former standards of

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<sup>9</sup>Ravindran, L., P.K.Panirahi and A.K.Mohanty. 1998. "Comparative Analysis of Economic status of people before and after Displacement in Orissa's Upper Indravati Project." *ASCI Journal of Management*, 28 (1): 80-100.

livelihood. The study aimed to find out the impact of displacement on the life and livelihood of tribals displaced by Upper Kolab and Upper Indravati Hydel Projects and rehabilitated in rehabilitation colonies and clusters. Both are the Projects of South Odisha started during nineteen seventies and eighties in which large number of tribal families of undivided Koraput and Kalahandi districts were displaced and many of them were rehabilitated in several rehabilitation colonies and clusters according to the R&R Policy in force at that time.

However, the specific objectives are the following:

- Evaluate the impact of the displacement on the tribals displaced by the two projects.
- Assess the socio-economic and cultural status of the displaced tribals in the area.
- Find out the extent of livelihood restoration of those affected
- Identify any impoverishments due to displacement
- Provide suggestions for restoring livelihoods of the displaced people and suggest strategies for reversing any impoverishment that has occurred.
- Recommend specific critical areas for the policy makers and implementing agencies for more effective resettlement and rehabilitation measures for the tribal displaced persons in development projects.

The focus of the study was on assessing the impoverishments suffered by the displaced people, and to suggest measures for reversing those impoverishments.

### **1.3 METHODOLOGY**

#### **1.3.1 Study Design**

The study was intended to assess the impact of displacement on the tribals displaced by the Upper Kolab and Upper Indravati projects. Displacement in these two projects had occurred between 1985 to 1995 and a long time has passed between the event and the study to assess its impact. Since baseline information for the individual DPs pertaining to their social and economic details are not available, the study collected information pertaining to the current socio-economic data as well as the social-economic details before displacement from the individual DPs who were interviewed. Both pre and post data were collected from the DPs and were compared for differences, to highlight the positive and negative changes due to displacement.

#### **1.3.2 Geographical Coverage of the Study**

The study was undertaken on the displaced tribal families of Upper Kolab and Upper Indravati project located in Kalahandi, Nowrangpur and Koraputs district and resettled in different rehabilitation colonies and clusters. Only surviving DPs were included in the sample and information about their past and present socio-economic condition was collected from them directly.

#### **1.3.3 Sampling and Sample Size**

As per the ToR, purposive stratified random sampling method will be used to select the resettlement colonies where the project displaced tribal families have been resettled and the displaced families residing in the colonies for the study.

**Sample size:** Given the time and manpower limitations of this study, it was decided to take a sample of 200 DPs from each project, with a total sample of 400 DPs in the study. The universe size for tribal DPs at the time of displacement 30 to 35 years back was 1431 for UKP and 1630 for UIP. Assuming a minimum 25% mortality in these years since displacement, the current universe size is worked out to be 1074 for UKP and 1225 for UIP. The sampling ratio works out to be 19% for UKP and 16% for UIP.

Resettlement colonies are there only in Upper Kolab project, and the tribal DPs living in these colonies were all covered in the study. However, only 127 tribal DPs were found in the colonies. The rest 73 DPs were taken from two largest clusters of DPs near the Dam site in Koraput block.

As there is no Resettlement Colony in Upper Indravati project, it was decided to take only large clusters of tribal DPs in the resettlement area and accordingly take a sample of 200 DPs from these clusters. Large clusters of tribal DPs were identified in the three districts which have maximum no. of DPs from UIP. Accordingly, large clusters of tribal DPs were taken from Nowrangur, Kalahandi and Koraput district and the sample of 200 DPs was distributed across these three districts. The distribution of sample DPs across the three districts shows 40% from Kalahandi district, 31% from Nowrangpur district and 29% from Koraput district.

**1.3.4 Respondents:** Following respondents were covered in the study sample:

- Displaced tribal families
- Project officials and local administration officials
- Local leaders
- Local NGOs
- Groups of DPs (both men and women)

**1.3.5 Data collection:**

Following methods were used for collecting data:

- (i) Secondary Review of existing literature and information
- (ii) Key Informant Interviews with officials and leaders
- (iii) Focus Group Discussion with groups of displaced men and women
- (iv) Case Studies of families and rehabilitation clusters

## **1.4 STUDY TOOLS**

- Household schedule for the tribal displaced families
- In-depth Interview guideline for the project officials and leaders
- FGD guideline for groups of tribal men and women
- Format for infrastructure and services in rehabilitation colonies/ clusters

The tools were finalized after pre-testing and in consultation with the authorities.

### 1.5 DURATION OF THE STUDY AND SCHEDULE OF ACTIVITIES

The study would be conducted for a total duration of 6 months. The following timeline of activities

Activity	Time in Months						Extended	
	1	2	3	4	5	6	7	8
Study inception: discussion with authorities, collection and review of secondary literature, preparation and finalization of data collection tools								
Data collection: qualitative data and discussion with officials NGOs and other key informants								
Data collection: Interview and FGDs with tribal DPs and group discussion								
Data analysis								
Draft report								
Comments on draft report and final report								

### 1.6 STUDY IMPLEMENTATION

In the first inception stage, the detailed framework for the study was prepared and discussed with the authorities. After approval, the study tools were prepared and then pre-tested. Based on the feedback from the field, the tools were finalized and then the field work was started. The qualitative information was collected first, through Focus Group discussions, Interviews with Officials and leaders, and observing the physical and social infrastructure in the colonies and the clusters. Then the Household Data collection was started first in the Upper Kolab area and then in Upper Indravati area. Subsequently, data coding and entry was carried out and then analysis was done. Then the report was prepared based on the study findings.

### 1.7 STUDY LIMITATIONS

Displacement occurred in UKP between 1984 to 1987 and in UIP between 1990 and 1997, though most of displacement in UIP was finished by 1992. Taking 1990 as the median year, most of the displacement happened 30 years back. It is difficult to recall information about events that happened 30 years back. Additionally, many respondents are likely to be over 60 years with failing memory and this makes collection of information still more difficult.

The study is based on purposive sampling of DPs from the two projects who lived in rehabilitation colonies and large clusters and their socio-economic status is likely to be better than those living in small clusters or in a scattered way. It is not appropriate to generalize the findings to all the DPs of the two projects.

Comparison of socio-economic condition after 30 years makes it difficult to attribute the changes to a particular event as there is extensive change in the social and economic and cultural environment in 30 years time.

# CHAPTER II: ABOUT THE PROJECTS

## 2.0 BACKGROUND

This chapter presents information about the two projects which displaced the tribal people. These two are major multi-purpose projects, including both irrigation and power production activities in the backward tribal districts of Koraput, Nowrangpur and Kalahandi districts in Odisha. These were implemented in the 70s and were completed in the 90s. The details of the two projects are as follows:

## 2.1 UPPER KOLAB PROJECT

**2.1.1 About Upper Kolab Project:** Upper Kolab Hydro Electric Project, located in the district of Koraput (Odisha) was taken up for excavation in the year 1976 by the Irrigation and Power Department, Govt. of Odisha at an estimated cost of Rs. 74.63 Crores. This Project is utilizing the water potential of river 'KOLAB' a tributary of river Godavari. It is a multipurpose project aimed at Generation of 95MW(firm) Hydro Electric Power, providing irrigation facilities to 47,985 H.A. by lift canal irrigation and supplying drinking water to Damanjodi, Koraput, Sunabeda and Jeypore towns.

The Project work was completed in two stages i.e. STAGE-I & STAGE-II. In stage -I, 3 nos. of 80MW Hydro Generators along with their auxiliaries, 220 KV Switchyard, water conductor system, Reservoir etc. were completed and commissioned; Under Stage-II, only the Installation and commissioning of Unit IV was completed. Major Works of Stage-I were completed during 1993. The total revised expenditure for completion of major electrical works under stage-I and stage-II comes out to be 8880 lakhs (Approx)

**2.1.2 Brief History of the project:** Preliminary investigations for the project were carried out by the Government of Madras before April 1936. At that time Koraput district was a part of Madras Presidency and subsequently detailed investigations were carried out by Govt. of Odisha after 1961. The present proposal was finalised after investigating several proposals with alternative dam sites and water conductor systems. The power project was approved by the Planning Commission during August 1975 and irrigation project in June 1976.

**2.1.3 Project Features:** The Project has got a Potential of producing 95 MW of firm power with a generation of 832.2 million units and power is fed to the general grid at the Jeypore sub-station. Flow irrigation is provided to an ayacut of 47985 H.A of C.C.A in Jeypore, Boriguma & Kotpad tahsils. Jeypore main canal is designed to carry additional discharge for irrigation 22267 H.A of C.C.A at higher contours upto Telengir river. This left ayacut will be developed in 2nd stage. Drinking water supply for Jeypore town is pumped from the 'Satiguda Pond' by the State Public Health Engineering Organisation. The reservoir is ideal for the development of pisciculture as the water spread area of over 114 sq km is providing recreational facilities for people of Jypore, Koraput and Sunabeda towns. The Project also attracts tourists, being so close to the national highway and rail heads.

Major Construction activities of the project will continue up to 1985-86 with a peak daily requirement of 6000-8000 workman. Almost the entire bulk of unskilled labour are available locally and the project gives them ample employment opportunities.

Upper Kolab project will change the complexion of backward area with more agricultural production through continuous irrigation facilities and rapid industrialisation with the growth of small and large scale industries and pave the way for prosperity and happiness for future generations.

### Salient Features of the Project

1.	Name of the Power Station	-	Upper Kolab Power House		
2.	Name of the River	-	Kolab		
3.	Location				
	(I) State	-	Odisha		
	(ii) Nearest town	-	Jeypore		
	(iii) Distance	-	5 kms. From Jeypore		
4.	Total Installed Capacity				
	(i) No. of existing Units	-	4 (Four)		
	(ii) Capacity of each Unit	-	80 MW		
	(iii) Total capacity	-	320 MW		
5.	Reservoir / Pondage				
	i) Name of the Dam	-	Kolab Dam		
	ii) Type of Dam	-	Straight Masonary Gravity		
	iii) Height of Dam	-	54.50 Mts.		
	iv) Length of Dam	-	630.5 Mts.		
	v) Catchment area	-	1630 Sq. Km.		
	vi) Average Annual Inflow	-	1803 M cum.		
	vii) FRL / MWL	-	858 Mts.		
	vii) MDDL	-	844 Mts.		
	viii) Gross Storage capacity				
	(a) Gross	-	1215 M cum.		
	(b) Dead	-	280 M cum.		
	(c) Live	-	935 M cum		

## 2.2 UPPER INDRAVATI PROJECT

**2.2.1 About Upper Indravati Project:** The Upper Indravati Project envisages diversion of water of the Indravati river in its upper reaches into the Mahanadi river basin for power generation and irrigation. In addition to the power house, the project involved construction of 4 dams across the Indravati and its tributaries, 8 dykes and two inter-linking channels to form a single reservoir with a live capacity of 1,435.5 Million m<sup>3</sup> and a barrage across Hati river in Mahanadi river basin. The main purpose of the dam was Hydroelectricity and irrigation. The project was implemented by Govt. of Odisha and Water Resources Department and work on the project was completed in 1996.

The Upper Indravati Hydroelectric Project is a multipurpose river dam project in Odisha, started in 1978. It is located on the trijunction of Koraput, Nowrangpur and Kalahandi districts. This project was initiated with the financial assistance of The World Bank. The combined reservoir formed by 4 dams and 8 dykes stretches up to an area of 110 square km. and was designed to irrigate 109,300 hectares (later revised to 1.28 lakh hectares in 1994) of agricultural land and generate 600 MW of electricity.<sup>10</sup> Though this project had been approved by the union Planning Commission in 1978 and had obtained an environmental clearance in 1979, full-fledged construction began only after the World Bank's assistance had been obtained in 1985.

**2.2.2 Brief History and Background :** With due regard to the long standing aspiration and demands of the people of the drought stricken Kalahandi District of Odisha State, investigation of the Upper Indravati Project had commenced during the year 1956. The approval of the Union Planning Commission for execution of this Project had to wait till the decision of the Krishna-Godavari Commission was announced the year 1977 regarding equitable distribution of water resources in the Godavari basin between Madhya Pradesh, Odisha State and Andhra Pradesh. Thereafter this Project was approved by the Union Planning Commission in May 1978 for as estimated cost of Rs. 208.15 crores and administrative approval by Govt. of Odisha was accorded during July 1979. The foundation stone of the project was laid by Late Prime Minister Sri Moraji Desai on 4th April 1978.

Upper Indravati Project, which can be considered as one of the largest multipurpose projects of India in terms of its Power and Irrigation benefits, is located in the districts of Kalahandi and Nawarangpur of Odisha State and envisages trans basin diversion of water of river Indravati (Godabari Basin) to river Hati (Mahanadi Basin). Served by a combined catchment of 2630 Sq. KMtr, the project features are unique and consist of four dams and eight dykes. The main dam is on the river Indravati, and the other three being on its tributaries: the Podagada, Kapur and Muran. All these form a single reservoir connected together through two link channels within the reservoir. The reservoir is approximately 43 Km long in the NNE-SSW direction and 9 Km wide at its widest point. The water from the reservoir having maximum depth of 71 m. and an average depth of 21 m is conveyed to Power House through a water conductor system comprising of 335 m long Headrace Channel, 3934 m long, 7 m dia, circular tunnel terminating at surge shaft 20 in dia 140 m deep, 2 nos. 298 m long 5.25 m dia penstock tunnels and 4 nos. 790 m long 3.5 m dia surface penstocks. The Power Station with 4 x 150 MW installation and operating with an average head of 371 m offers peak power benefit up to 600 MW and annual energy benefit of 1962 MU in a 90% dependable year. The water released from the Power House is carried through a tailrace channel 9000 m long to be finally picked up by the barrage on the river Hati to irrigate 128000 Ha. of land through two flow canals and one loft canals in the chronically drought prone areas of Kalahandi District

**2.2.3 Project Features**

LOCATION	Long E 82° 45 ' to 82° 55 ' Lat. N 19°0 05 ' to N 19° 25 '
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<sup>10</sup> Garg, Saurav. 1998. "Resettlement in the Upper Indravati Project: A Case Study." in H.M.Mathur and David Marsden (ed) Development Projects and Impoverishment Risk, Delhi: Oxford University Press.

<b>Hydrology</b>	
Catchments area	2630 Sq. Km.
Maximum annual rain fall	2345 mm
Minimum annual rain fall	1138 mm
Mean annual rain fall	1792 mm
Probable maximum flood	23030 Cu.M. / Sec.
<b>Reservoir</b>	
Full reservoir level	642.00 m.
Maximum water level	643.00 m.
Minimum draw down level	625.00 m.
Live storage	1455.76 M. Cu.M.
Dead storage	851.94 M. Cu.M.
Gross storage	2307.70 M. Cu.M.
Water spread area at FRL	110.00 Sq.Km.
P.M.F. Inflow	27070 Cu.M.
<b>D a m s : Indravati dam ( masonry, gravity type )</b>	
Latitude	19° - 16' N
Longitude	42° - 50' E
Catchment	1153 Sq.K.M.
Length overall	539 M
Length of Non-overflow sections	410 M.
Length of Spillway including piers	129 M.
Deepest bed level	R.L. 600 M.
Dam Top level	645 M.
Width	7.5 M.
Maximum height of Dam	45 M.
Spillway Crest Level	629.5 M.
Radial Gate No. / Width x Height	7 / 15.00 x 12.5 M.
Capacity MWL EL 643	11,430 Cu.M./Sec.
Depletion sluices No./ Width x Height	4 / 2.00 x 3 M.
Sill Level of depletion sluice	610 M.

Discharge : EL 643	555 Cu.M./Sec.
<b>Podagada dam (homogenous earth fill )</b>	
Latitude	19° - 14' N
Longitude	82° - 49' E
Catchment	389 Sq.K.M.
Length Overall	462 M.
Deepest Bed level	570 M
Dam Top Level	647 M.
Top Width	9.0 M.
Parapet height	1.0 M.
Maximum height above bed level	77 M.
Protection	Upstream 0.6 m. Riprap over 0.3 m. Filter Down stream Grass Turfing
<b>Depletion Tunnel</b>	
Number / Diameter	1 / 6.2 M.
Sill Level of depletion tunnel	590 M.
Discharge M.R.L 643	650 Cu.M./Sec.
<b>Kapur dam ( homogenous earth fill )</b>	
Latitude	19&deg; - 6' N
Longitude	82&deg; - 47' E
Catchment	60 Sq.K.M.
Length overall	537 M
Deepest bed level	582 M
Dam Top Level	646 M.
Top Width	9.0 M.
Parapet height	1.0 M.
Maximum height above bed level	64 M.
Protection	Upstream 0.6 m. Riprap over 0.3 m. Filter Downstream Grass turfing
<b>Muran dam ( Masonry, Gravity Type )</b>	
Latitude	19&deg; -6' N
Longitude	82&deg; - 46' E

Catchment	1028 Sq.K.M.		
Length, overall	590.9 M		
Length of Non-overflow section	495.9 M.		
Length of Spillway including piers	95 M.		
Deepest bed level	580 M		
Dam Crest level	645 M.		
Width	7.5 M.		
Maximum height of Dam above deepest foundation	65 M.		
Spillway crest level	629.5 M.		
Radial Gates Nos. / Width / Height	5 / 15.0 / 12.5 m.		
Capacity	8,000 Cu.M. / Sec.		
Depletion sluices No. / Width / Height	4 / 1.5 x 4 M		
Discharge M.R.L. 643 M	588 Cu.M./ Sec.		
Sill level of depletion sluice	595.230 M		
<b>Dykes ( homogeneous earth fill )</b>			
	Dyke No.	Height M.	Crest length M.
Left	1	30	353
	2	20	320
	3	15	680
	4	20	160
Right	1	15	463
	2	20	146
	3	25	593
	4	15	535
Crest Level		646 m.	
Width		7.0	
Parapet height		1.0 m	
<b>Link channels</b>	<b>Length m.</b>	<b>Bed El.m.</b>	
Guntrukhal	1523	613.00	
Kusumpadar	1550	620.0	

#### 2.2.4 Important Events

- Foundation stone was laid by the Hon'ble Prime Minister of India Mr. Moraji Desai on 9th April 1978 at Mukhiguda in the district of Kalahandi.
- Administrative approval was accorded by the Govt. of Odisha vide Irrigation Department letter No.25884 dt. 23.07.1979 for 208.15 Crores.
- The Project was dedicated to the people on 08.12.2001 by the Hon'ble Union Power Minister Mr. Suresh Prabhu.

### **2.3 DISPLACEMENT AND REHABILITATION IN UPPER KOLAB PROJECT**

The total number of families affected due to the construction of this dam, either fully (losing both house and land) or partially (part of house and land), were 13,095 families (50,771 persons) of which 2,127 families (8,830 persons) were dalits, 7,092 families (26,620 persons) were tribal and 3,882 families (15,327 persons) were from other caste.<sup>11</sup>

The number of families displaced and rehabilitated in Upper Kolab Project is 3,067 (1,431 ST families, 435 SC families and 1,201 OBC families). Of these, over 500 families shifted to Rehabilitation Colonies in Kotpad block whereas over 2600 families resettled on their own in different clusters around the dam site in Koraput block. Some DP clusters are also located in the adjoining Semiliguda block.

**2.3.1 Rehabilitation Assistance in Upper Kolab project:** All the DPs in this project were paid the same amount of RA. The amount was a total of Rs.14040/-, which included Rs.12000/- for purchasing land and 2040- for house construction. No one was paid any Maintenance Allowance in this project. However, people were provided free transport by the project to take their things to the new place. The truck could not accommodate cattle, and DPs reported that they had to walk to their new habitation with their cattle.

**2.3.2 Relocation and shifting:** Most DPs who did not go to Rehabilitation Colonies in Kotpad block reported that they were taken to a cluster of tin houses and they stayed there for 1 year. After a year, the tin houses were demolished and the tins were taken away and the DPs had to make their own arrangements for living. They selected their own place and moved in big and small groups to different places. Some had identified and bought land and they went there whereas some settled in govt. land and set up habitation there. Some DPs reported that they moved again from their selected place and moved again to a new place and finally set up house there.

**2.3.4 Resettlement Colonies:** In Upper Kolab project, land was identified in Batasana area of Kotpad block. The DPs were taken in groups to see the place so that they could move to the place and set up habitations there. As the DPs were all previously living in the midst of forest and hills with perennial streams, their life and life style and their livelihood and cultural activities were all based on such a setting. The new area in Kotpad was dry and barren land in contrast and most of the DPs rejected the place and opted to set up their own habitat in the place of their liking and preference. About 528 families opted to live in the identified place and they stated their options to move to the Rehabilitation Colonies there. Subsequently, a number of colonies were developed there, named as 4, 4A, 6, 7 and

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<sup>11</sup> Government of Orissa, 1981

7A. About 424 families moved first and another 104 families moved later. DPs moved in caste-based groups to these colonies and settled there. They were given 0.5 decimal land as homestead, a house, and 2 acres of land for cultivation there. Later the DPs extended and added rooms and portions to their houses. The homestead land also had ample space for developing kitchen garden, but since the land was dry and there was no good source of water in the habitation, those who could put in manual labour to carry water could develop gardens. Canal water is now available for their cultivation lands in some colonies and some DPs are able to take up farming activities growing two crops in a year.

## **2.4 DISPLACEMENT AND REHABILITATION IN UPPER INDRAVATI PROJECT**

Due to the construction of this dam, 5448 families (total population of about 17,000) have been displaced from their home. A total of 97 villages (44 from undivided Koraput + 53 from Kalahandi) have been affected, with 65 villages fully submerged. Out of these villages, 31 villages were from Koraput and 34 were from Kalahandi. Moreover the Project acquired 32,530.87 acres of land, including 17,137.97 acres from Kalahandi and 15,388.90 acres from Koraput and Nowrangpur districts.<sup>12</sup>

Evacuation of people from the 65 fully submergible villages was started in 1989. About 10.68% evacuation took place in 1989, 16.85% in 1990, 21.68% in 1991, and 38.02% in 1992. About 9% of evacuation took place in 1993.<sup>13</sup> Out of the total 3,725 families displaced, 1,630 families are ST, 338 families are SC, and 1,557 families belong to general caste.<sup>14</sup>

**2.4.1 Rehabilitation Assistance:** Displacement of the PAPs was taken up in five phases between the years 1990 and 1998-99. Initially the state government had declared that the DPs will be provided. 5 acres of un-irrigated/ 2.5 acres of irrigated agricultural land and .0.50 acres of homestead land. It was further announced' that in case it was not possible to provide land to the displaced family, or where the displaced family chooses to make its own rehabilitation arrangement, it will be paid cash equivalent in lieu. All the displaced families opted for cash payment. In the first' phase of displacement, Rs. 20,075/- was paid to each displaced family for purchase of 5 acres of un-irrigated land/2.5 acres of irrigated land and 50 decimals of homestead land. In addition, the displaced families were paid Rs. 9,500/- each as house building assistance. They were also paid Rs. 6000/- each as maintenance allowance.

In the 2nd phase, the state government decided that if a family is not able to purchase the entire extent of resettlement land i.e., 5-acre of un-irrigated or 2.5 acres of irrigated land, they should purchase at least 50% of the total land. The house building assistance and the maintenance allowance remained unchanged at Rs. 9500/- and Rs. 6000/- respectively.

In the 3rd phase, the nature and quantum of Rehabilitation Assistance was modified as follows; Each family was provided with cash equivalent of 10 decimals of homestead land

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<sup>12</sup> Rehabilitation and Resettlement Unit, 1995. Community Based and Family Oriented Rehabilitation Action Plan of Upper Indravati Project, Kathiguda, Department of Engineering, Orissa.

<sup>13</sup> *Ibid*

<sup>14</sup> Dalua, A.K. 1993. Environmental Impact of Large reservoir Projects on Human Settlement. New Delhi: Ashish Publishing House.

at the rate of Rs. 16,000/- per acre. Each displaced family was provided with cash equivalent of agricultural land. The rate of cash equivalent was fixed at Rs. 8,000/- per acre of un-irrigated land or Rs. 16,000/- per acre of irrigated land. Each displaced family was provided with house building assistance of Rs. 17,000, which was 50% of the approved cost of a-built up house. The maintenance allowance remained fixed at Rs. 6000/- per DP.

In the 4th phase, rehabilitation assistance was further modified as follows. Each DP was given cash equivalent of 20 decimals of homestead land @Rs.16,000/ -per acre, cash equivalent of 2.5 acres of land@ Rs. 8000/-per acre or 1.25 acres\_ of irrigated land @ Rs16000/ per acre, house building assistance and maintenance allowance remained fixed at Rs. 17,000/- and. Rs. 6000/-, respectively, per DP. A total of Rs.46200/- per DP.

In the 5th phase the Rehabilitation Assistance was further modified as follows. Cash equivalence of agricultural land was enhanced' to Rs. 40,000/-, house Building Assistance was enhanced to Rs. 20,00.0/- per DP, Cash equivalent of homestead land was raised to Rs. 4000/ per DP, and maintenance allowance remained fixed at Rs. 6000/- per DP. A total of Rs.70000/- per DP.

Out of the 6133 DPs, 1021 belonged to SC, 2661 to the ST and. 2451 to other castes. Of the 6133 DPs, 382 were major sons, 153 were physically handicapped, 2 were orphans and 686 were widows.

**2.4.2 Relocation and shifting:** An area of 4, 971 acres was identified for the establishment of rehabilitation colonies of Upper Indravati Project in Sasahandi in Jeypore sub-division coming under ayacut of Upper Kolab Project. The infrastructure works were taken up in three camps as per government rules. Another patch of more than 300 acres was identified in Talajaring area under the proposed ayacut (submerge area) of the Upper Indravati Project in Kalahandi district. Since displaced persons did not opt to avail themselves of the resettlement in government sponsored colonies, the idea of establishing colonies in these two places was abandoned. However, two small patches were identified to resettle twenty-eight displaced families who were interested in it. Others were given cash compensation as they opted for it and preferred individual resettlement. A total of 5463 displaced families have been settled in 560 cluster villages of various sizes in twenty blocks of five districts, viz. Kalahandi, Koraput, Nawrangpur, Rayagada and Malkangiri. The R&R Unit provided people absolute freedom to choose their place for resettlement.

According to the Registrar of R&R activities of UIP, a total of 5477 DP families are now resettled in 5 districts, with 2291 in Nowrangpur district, 1766 in Kalahandi District, 1274 in Koraput district, 144 in Rayagada district, and 2 families in Malkangiri district.

These families are distributed across 21 blocks in these 5 districts. The breakup is given below.

Sl. No.	Block	No. of DPs	Sl. No.	Block	No. of DPs	Sl. No.	Block	No. of DPs
1	Boriguma	842	8	Nandahandi	341	15	Nabarangpur	1

2	Dasmantpur	416	9	Papadahandi	128	16	Kodigaon	144
3	Koraput	1	10	Kosagumuda	19	17	Kashipur	2
4	Jeypore	5	11	Dabugaon	4	18	Malkangiri	1217
5	Baipariguda	9	12	Umerkote	69	19	Thuamal Rampur	503
6	Kundura	1	13	Jharigaon	69	20	Jaipatna	46
7	T entulikhunti	1636	14	Raighar	10	21	Kalampur	46

**2.4.3 Support from authorities in settling down:** While the project authorities consider shifting and relocation and the entire displacement process as a success as people were allowed to search for a new place and settle down on their own using the compensation and rehabilitation funds they received, people themselves state that the project authorities did not provide any help and support to them in finding a place or in settling down. They were left to resettle on their own, even though the funds they received were too inadequate to buy land and to build a house and settle down. This is mainly because of the low compensation rates they received for their land. While land was compensated at the rate of Rs.1000 to Rs.2000 per acre, the price of land was about Rs.15000 to Rs.20000 per acre and most could not afford more than 1 to 2 acres of land in the new place. Small and marginal farmers were rendered landless, large ones were forced to become marginal farmers and very few could buy enough land to qualify even as small farmers. All the DPs were in need of some support for buying land at reasonable prices but the project did not provide any support in this regard. Once people settled down and new habitations were formed, physical and social infrastructure was provided in the new place which added value to the living conditions of the DPs.

**Recent status of grievances and claims:** The Families displaced in the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> phases have been demanding payment of Rehabilitation Assistance at the same rate as was paid to those displaced in the 5<sup>th</sup> phase i.e. @ Rs. 70,000/- per DP. It appears RDC South Division had accepted this demand in principle. It also appears that a proposal was submitted by Collector Nabarangpur in his memo No. 118/2008 dated 08.02.2008 to the government for placement of Rs. 16 crore for the purpose. More than 9 years have gone by since the submission of the above proposal but the fate of the proposal is not known yet.

## Chapter III: Sample profile and specific project details

This chapter describes limited demographic characteristics of the sample covered in the study. In addition, few specific project information are also discussed here.

### 3.1 LOCATION DETAILS

3.1.1 While all the DPs in UKP were covered in Koraput district, the DPs of UIP were spread over Koraput, Nowrangpur and Kalahandi districts. Overall, 64% of the DPs were from Koraput district, about 20% from Kalahandi and about 15% from Nowrangpur district. For UKP, 63% of the DPs were from Kotpad block and 37% were from Koraput block. This is because the Rehabilitation Colonies are in Kotpad block and after the colonies were exhausted for eligible DPs then the rest DPs were covered in two clusters near the Dam site in Koraput block. For UIP, 20% each of the DPs were covered in Thuamal Rampur and Jaypatna blocks in Kalahandi district, about 31% were covered in Tentulikhunti block in Nowrangpur district, and 29% were covered in Dasmantpur block in Koraput district.

Project	Village/ colony covered	Nowrangpur	Kalahandi		Koraput			Total
		Tentulikhun ti	T. Rampur	Jayapatna	Dasmantpur	Kotpad	Koraput	
Indravati	Gatiput	36	1	-	-			37
		58.1%	2.4%					18.5%
	Panasdu ka	14	-	-	-			14
		22.6%						7.0%
	Baragud a	12	-	-	-			12
		19.4%						6.0%
	Ambagu da	-	-	-	29			29
					50.9%			14.5%
	Mundag uda	-	-	-	28			28
					49.1%			14.0%
	Hirapur	-	-	40	-			40
				100.0%				20.0%
Dingirib andha	-	31	-	-			31	
		75.6%					15.5%	
Ghuturk hal	-	9	-	-			9	
		22.0%					4.5%	
	<b>Total</b>	<b>62</b>	<b>41</b>	<b>40</b>	<b>57</b>		<b>200</b>	
Project	Village	Nowrangpur	Kalahandi		Koraput			Total
		Tentulikhun ti	T Rampur	Jayapatna	Dasmantpur	Kotpad	Koraput	
Kolab	Colony 7					37	-	37
						29.1%		18.5%
	Colony 4 A					68	-	68
						53.5%		34.0%

Colony 5					6	-	6
					4.7%		3.0%
Colony 4 B					16	-	16
					12.6%		8.0%
Nua Keranga					-	37	37
						50.7%	18.5%
Chakarli guda					-	36	36
						49.3%	18.0%
<b>Total</b>					<b>127</b>	<b>73</b>	<b>200</b>

**3.1.2 Habitation characteristics:** The DPs after displacement resettled in different habitations in many different ways. Mostly they moved to different locations in groups. Mostly it was same-caste groups. But land was available in limited places. Where ever land was available for settling down, groups of DPs from different villages moved there till land was exhausted. A look at the DP habitations shows that only 16% of habitations had DPs from one village, whereas most of the habitations had DPs from different villages. Similarly, only 13% of the habitations had DPs from the same caste, whereas most habitations had DPs from different caste groups.

Mixed or single village cluster	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
All families from one village	64	32.0%	-	0.0%	64	16.0%
Families from different villages	136	68.0%	200	100.0%	336	84.0%
<b>Caste feature of cluster</b>						
All families from same caste	51	25.5%	-	0.0%	51	12.8%
Mixed caste habitation	149	74.5%	200	100.0%	349	87.3%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	

**3.1.3 Search for a suitable habitation:** DPs in the current habitation were asked whether they settled there directly after displacement or whether they settled in one habitation and later moved to this habitation. It is found that the majority of the DPs had come directly to the current habitation whereas about a quarter (24%) had settled in one habitation and later moved to the current habitation. When asked about the reasons for abandoning the first habitation and moving to the second one, in UIP area most DPs (45%) reported that they moved to the second one because they did not have members of their own caste in the first habitation. This emphasizes that the tribal DPs always want to live with people of their own caste because their culture is of utmost priority for them. About one third of the DPs (32%) stated that they moved out from the first habitation because they could not cultivate the crops which they used to grow earlier before displacement. About 14% cited insufficient land as the reason of leaving the first habitation. In UKP area, most DPs reported that they had settled in a place which was close to the reservoir and when water started accumulating in the reservoir then they left fearing drowning. Others left when the temporary houses provided by the project were pulled down by the authorities. This highlights that the all the DPs could not plan their resettlement and could not find a suitable place and were forced to move from one place to another to find a suitable habitation.

Whether came to the cluster directly	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
Yes	171	85.5%	132	66.0%	303	75.8%
No	29	14.5%	68	34.0%	97	24.3%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	

Why did they leave that place	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
Insufficient of land	4	13.8%	-	-	4	4.1%
Lack of same caste group	13	44.8%			13	13.4%
No scope of cultivation of previous crops	9	31.0%	-	-	9	9.3%
Demolition of temporary shed	4	13.8%			4	4.1%
Lack of forest products and land	3	10.3%	-	-	3	3.1%
Fear of drowning & flowing of water	-	-	32	47.1%	32	33.0%
Shifted out due to constructed house by block	-	-	36	52.9%	36	37.1%
<b>Total</b>	<b>29</b>		<b>68</b>		<b>97</b>	

**3.1.4 DP profile and characteristics:** Type of loss: DPs suffer different degrees of loss due to dam projects as the area is inundated with water. In this case, majority of DPs (70%) reported that they have lost their homestead land and all their agricultural lands. Only about 16% have lost only homestead land.

Category of affected family	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
Homestead land	54	27.0%	11	5.50%	65	16.3%
HSL+ Total Agril. land (TAL)	103	51.5%	177	88.5%	280	70.0%
HS + Part of TAL	1	0.5%	1	0.5%	2	0.5%
Others	42	21.0%	11	5.5%	53	13.3%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	

**3.1.5 Gender of DPs:** Majority of DPs covered in this survey were men (72%) and about 28% were women. The age of the DPs ranged from 31 years to over 80 years. Only 1% were in the age range of 31-40 years whereas about 29% were in 41-50 years range and 31% were in 51-60 years range. About 37% were in 61-70 years age range and about 2% were over 80 years in age. The average age of the sample of DPs was found to be 58 years. It may be noted that displacement occurred between 30 to 35 years ago in the two projects.

Category of affected family	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
Male	146	73.0%	142	71.0%	288	72.0%
Female	54	27.0%	58	29.0%	112	28.0%
<b>Age</b>						
31-40	1	0.5%	3	1.5%	4	1.0%
41-50	52	26.0%	66	33.0%	118	29.5%

51-60	73	36.5%	51	25.5%	124	31.0%
60-80	69	34.5%	78	39.0%	147	36.8%
>80	5	2.5%	2	1.0%	7	1.8%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	
Mean	58.53		56.91		57.72	

**3.1.6 Family members and type:** The DPs were mostly in nuclear family before displacement (81%), whereas after relocation only 62% are in nuclear family. The proportion of DPs living in joint family has increased from 17% to 36% after relocation. As against the practice of the tribal families to stay separately in nuclear family after marriage, the current shortage of space in the house due to the limited homestead land may be the reason forcing people to live in joint families. However, the no. of family members does not show any significant increase. The average no. of members in the family has meanwhile increased marginally from 4.38 to 4.64 after relocation.

Family Type	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
Nuclear	124	62.0%	124	62.0%	248	62.0%
Joint	68	34.0%	76	38.0%	144	36.0%
Extended	8	4.0%	-	-	8	2.0%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	

**3.1.7 Details of family members:** The 400 DPs interviewed have a total of 1880 members in their families. The average age of the family members is 31.9 years. About the marital status of the family members, about 48% are married, 43% are unmarried and about 8% are widowed. The educational status of the DPs shows that 49% are illiterate and another 9% are just literate. About 19% are educated up to elementary level and about 13% are educated till high school or have passed matriculation. Only about 3.5% are educated up to college level and have passed graduation or technical courses. Regarding skill possession, about 97% have no skills and only 3% have a variety of skills such as carpentry, tailoring, pottery, brick making, driving, etc.

Age	Indravati		Kolab		Total	
	No.	%	No.	%	No.	%
Upto 6 Yrs	75	8.2%	78	8.1%	153	8.1%
7-13 Yrs	135	14.7%	116	12.1%	251	13.4%
14-19 Yrs	161	17.5%	154	16.0%	315	16.8%
20-24 Yrs	87	9.5%	80	8.3%	167	8.9%
25-35 Yrs	79	8.6%	152	15.8%	231	12.3%
36-60 Yrs	280	30.5%	271	28.2%	551	29.3%
>60 Yrs	102	11.1%	110	11.4%	212	11.3%
<b>Mean</b>	31.93		25.00		31.88	
<b>Marital Status</b>						
Married	415	45.2%	486	50.6%	901	47.9%
Unmarried	424	46.1%	392	40.8%	816	43.4%

Divorced	1	0.1%	2	0.2%	3	0.2%
Separated	4	0.4%	4	0.4%	8	0.4%
Widowed	75	8.2%	77	8.0%	152	8.1%
<b>Literacy Status</b>						
Illiterate	521	56.7%	414	43.0%	935	49.7%
Just Literate	35	3.8%	128	13.3%	163	8.7%
Elementary level	167	18.2%	195	20.3%	362	19.3%
High School	67	7.3%	116	12.1%	183	9.7%
Matriculation	30	3.3%	33	3.4%	63	3.4%
Intermediate	29	3.2%	26	2.7%	55	2.9%
Gen Graduate	4	0.4%	4	0.4%	8	0.4%
Technical Diploma	1	0.1%	1	0.1%	2	0.1%
ITI CT	1	0.1%	-	-	1	0.1%
Not eligible	64	7.0%			108	5.7%
<b>Skill</b>						
Unskilled	888	96.6%	935	97.30%	1823	97.0%
Carpentry	6	0.7%	3	0.3%	9	0.5%
Pottery	12	1.3%	-	-	12	0.6%
Blacksmith	-	-	1	0.1%	1	0.1%
Goldsmith	1	0.1%	1	0.1%	2	0.1%
Tailoring	6	0.7%	1	0.1%	7	0.4%
Leaf plate making	1	0.1%	-	-	1	0.1%
Rope making	2	0.2%	1	0.1%	3	0.2%
Driving	2	0.2%	9	0.9%	11	0.6%
Bricks making	1	0.1%	-	-	1	0.1%
Other	-	-	10	1.0%	10	0.5%
<b>Total</b>	<b>919</b>		<b>961</b>		<b>1880</b>	

**3.1.8 Activity Status:** Regarding their activity status, about 47% are working, 19% are housewives or are doing only household work, 21% are students and are studying in schools and colleges, 6% are children not in the age of studying, and 2% are old or retired. 18 people have some type of disability. Regarding their occupation, about 18% are cultivators, about 34.5 are labourers, with 10% doing agricultural labour and 25% doing non-agricultural labour. About 1.3% are doing salaried work. Of those working, about 65% are working for 2 to 3 months in a year, whereas 30% are working for 4 to 6 months in a year. About 2% are working for less than a month and about 3% are working for 7 to 12 months in a year. Including all workers, the average number of working days was found to be 59 days.

Usual Activity	Indravati		Kolab		Total	
	No	%	No	%	No	%
Idle	16	1.7%	1	0.1%	17	0.9%
Employed	450	49.0%	433	45.1%	883	47.0%
Unemployed	9	1.0%	20	2.1%	29	1.5%

Housewife	153	16.6%	203	21.1%	356	18.9%
Old retired	23	2.5%	19	2.0%	42	2.2%
Student	169	18.4%	223	23.2%	392	20.9%
Non-school age children	69	7.5%	47	4.9%	116	6.2%
School age children but not going to school	18	2.0%	6	0.6%	24	1.3%
Disabled	1	0.1%	-	-	1	0.1%
Others	1	0.1%	1	0.1%	2	2.0%
NA	10	1.1%	8	0.8%	18	1.0%
<b>Any disability in House</b>						
Yes	8	0.9%	10	1.0%	18	1.0%
No	911	99.1%	951	99.0%	1862	99.0%
<b>No. of days employed in a year</b>						
Upto 1 month	22	3.7%	4	0.7%	26	2.1%
2-3 months	392	65.1%	397	64.7%	789	64.9%
4-6 months	163	27.1%	197	32.1%	360	29.6%
7-9 month	16	2.7%	9	1.5%	25	2.1%
10-12 months	9	1.5%	7	1.1%	16	1.3%
<b>Total</b>	<b>919</b>		<b>961</b>		<b>1880</b>	

Occupation of the family members	Before			After		
	Indravati	Kolab	Total	Indravati	Kolab	Total
No occupation	608	686	1294	325	331	656
	66.2%	71.4%	68.8%	35.4%	34.4%	34.9%
Cultivator	165	200	365	254	287	541
	18.0%	20.8%	19.4%	27.6%	29.9%	28.8%
Agricultural labourer	71	63	134	104	81	185
	7.7%	6.6%	7.1%	11.3%	8.4%	9.8%
Daily wage earner	70	9	79	217	248	465
	7.6%	.9%	4.2%	23.6%	25.8%	24.7%
Salaried	1	3	4	18	7	25
	.1%	.3%	.2%	2.0%	.7%	1.3%
Craft Artisan	-	-	-	-	3	3
					.3%	.2%
Business	1	-	1	-	3	3
	.1%		.1%		.3%	.2%
Others	3	-	3	1	1	2
	.3%		.2%	.1%	.1%	.1%
<b>Total</b>	<b>919</b>	<b>961</b>	<b>1880</b>	<b>919</b>	<b>961</b>	<b>1880</b>

### 3.2 COMPENSATION AND REHABILITATION ASSISTANCE RECEIVED

3.2.1 The house, land and other immovable properties such as trees, water sources, etc., were acquired from the DPs and they were given suitable compensation amount. Overall, about 17% of people reported that they did not receive any compensation. These are landless DPs or did not have any property in their name. About 55% DPs received within Rs.5000 compensation amount, whereas about 15% received between Rs.5000/- to Rs.10,000/-. About 11% received Rs.10000 to Rs.25000 whereas about 2% of DPs received more than Rs.50000/-. The mean amount of compensation received is found to be Rs.4,931/-. The amount is found to be Rs.3,826 in UIP and Rs.6,036 in UKP.

Compensation received	Indravati		Kolab		Total	
	No	%	No	%	No	%
Nil	51	25.5%	17	8.5%	68	17.0%
Upto 5000	108	54.0%	113	56.5%	221	55.3%
5001-10000	26	13.0%	32	16.0%	58	14.5%
10001-25000	10	5.0%	35	17.5%	45	11.3%
25001-50000	4	2.0%	3	1.5%	7	1.8%
> 50000	1	0.5%	-	-	1	0.3%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	
<b>Mean</b>	3,826.00		6,036.00		4,931.00	

3.2.2 **Rehabilitation Assistance:** The Rehabilitation Assistance (RA) amount was only Rs.14,040 in UKP, but in UIP different amounts of RA was given to DPs displaced in different phases. The average RA amount received by the DPs is found to be Rs.28,264. The amount is found to be Rs.14,736 in UKP and Rs.41,792 in UIP.

Total Assistance received	Indravati		Kolab		Total	
	No	%	No	%	No	%
Upto 20000	-	-	198	99.0%	198	49.5%
20001-30000	1	0.5%	1	0.5%	2	0.5%
30001-40000	95	47.5%	0	0.0%	95	23.8%
40001-50000	100	50.0%	1	0.5%	101	25.3%
>50000	4	2.0%	0	0.0%	4	1.0%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	
<b>Mean</b>	41,792.49		14,736.10		28,264.29	

3.2.3 **Total Assistance Received:** The total amount received by the people, including compensation and RA amount was worked out, and the average amount received by the sample DPs is found to be Rs.33177. The amount is found to be Rs.20744 in UKP and Rs.45,609 in UIP. One DP in UIP received over Rs. 1 lakh.

Total Assistance received	Indravati		Kolab		Total	
	No	%	No	%	No	%
Upto 25000	-	-	158	79.0%	158	39.5%
25001-50000	150	75.0%	42	21.0%	192	48.0%
50001-75000	45	22.5%	0	0.0%	45	11.3%
75001-100000	4	2.0%	0	0.0%	4	1.0%
>100000	1	0.5%	0	0.0%	1	0.3%

<b>Total</b>	<b>200</b>	<b>200</b>	<b>400</b>
<b>Mean</b>	45,609.44	20,744.60	33,177.02

**3.2.4 Expenditure of the compensation and RA amount on different heads:** DPs had to plan their life after displacement by buying different productive assets by spending the funds they had received during or after displacement. In this context, the expenditure of the total funds received by the DPs on different items was noted. It is seen that land dominates the expenditure and the maximum amount was spent by the DPs on buying land, including both homestead and agricultural land. The second largest amount was spent on house. Thus, livelihood dominates even the concern for a living place for the DPs who had to secure their means of earning first. This is followed by buying of livestock, which is also a means of livelihood for them as also a support for agriculture. The next large expenditure was on social functions followed by buying household assets. This also shows the importance of culture and festivals and functions in the life of tribal DPs who have multiple cultural functions. Other major expenditure was on education followed by health. This is also a good sign proving the realization of the importance of education by the tribal DPs.

In UKP, DPs spent more on household assets and functions than livestock.

Besides buying land using most of the funds received by the DPs, they also spent a small amount on land development as the land they had bought was not ready for cultivation and had to be developed to make it productive and fertile. A very small amount was spent by some DPs for irrigation measures for their land. A small amount was spent by the DPs in other land related expenses. No DP in UKP made any other expenses on land.

**3.2.5 Other support received:** All the DPs in the study were asked whether they had received any other support from the project during or after displacement. No one reported receiving any skill training. In UIP, 8 DPs reported receiving improved chullah from some source whereas 6 DPs reported receiving seedlings. None in UKP had received any other assistance besides the RA.

**3.2.6 Land identification:** How the DPs were able to find the land they bought was enquired and whether they received any help from the project authorities was also studied. It is seen that maximum proportion of DPs had visited the land site with the land acquisition office staff. Thus, the project staff had supported DPs in identifying land. 62% of DPs in UKP reported this compared to 25% in UIP. About 35% of DP in UKP took the help of other DPs from the same village and visited the land site with them. In UIP, maximum DPs (38%) visited the land site on their own while looking for land to buy to settle down. About 29% reported that they received information about the land from their friends and relatives and thus located the land where they settled down later. Thus it is seen that more DPs in UKP received support from others whereas in UIP the DPs mostly looked for the land individually.

Identification of land	Indravati		Kolab		Total	
	No	%	No	%	No	%
Visited with land acquisition staff in different places	51	25.5%	124	62.0%	175	43.8%

Information from relative and friends	58	29.0%	3	1.5%	61	15.3%
Self visited by different places	76	38.0%	2	1.0%	78	19.5%
Self visited by old village DPs	10	5.0%	71	35.5%	81	20.3%
NA	5	2.5%	-	-	5	1.3%
<b>Source of information about land</b>						
Information of relative	104	52.0%	35	17.5%	139	34.8%
Information from land owner	68	34.0%	6	3.0%	74	18.5%
Project staff	2	1.0%	21	10.5%	23	5.8%
Local Political Leader	14	7.0%	116	58.0%	130	32.5%
Information by the DPs	7	3.5%	20	10.0%	27	6.8%
NA	5	2.5%	2	1.0%	7	1.8%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	

**3.2.7 Comparative yield from land:** In order to assess the change in the returns from cultivation after displacement, the DPs were asked to compare the yield from land before and after displacement. They reported how much percentage was the yield from land after displacement compared to the yield before displacement. Overall, the current yield from land was reported to be 44% of the yield before displacement. Yield was over 49% of the previous land in UKP and only 38% of the previous land in UIP. Thus the DPs in UKP managed to get better yield from land. One factor explaining this could be that the DPs living in the Rehabilitation Colonies are getting irrigation facility in their lands and are thus able to raise a second crop and are thus getting better yield.

Comparative yield from land	Indravati		Kolab		Total	
	No	%	No	%	No	%
Nil	5	2.5%	14	7.0%	19	4.8%
Upto 25 %	85	42.5%	25	12.5%	110	27.5%
26-50 %	67	33.5%	81	40.5%	148	37.0%
51-75 %	11	5.5%	50	25.0%	61	15.3%
76-99 %	9	4.5%	12	6.0%	21	5.3%
100%	23	11.5%	18	9.0%	41	10.3%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	
<b>Mean</b>	38.27		48.46		43.36	

**3.2.8 Effects of less land after displacement:** The effects of less yield from less land after displacement was also studied. Both quantitative and qualitative effects were reported by DPs. Majority of DPs reported that they are getting less yield from the land. A larger majority also reported that they were not able to grow some crops which they were growing earlier. It may be noted that earlier the DPs were having both low lands and also up lands and were growing paddy and a variety of cereals, millets and pulses. Now they are more limited to low lands which they have bought and are not able to access uplands and thus the variety of crops grown by them has suffered. This is also likely to affect the nutrition levels of the DPs as it affects wholesome diet from a variety of food items. A

majority of DPs, mostly in UIP, also reported that they have also suffered a great loss in social status due to decrease in the amount of land possessed by them.

Effect of less land after displacement	Indravati		Kolab		Total	
	No	%	No	%	No	%
Less crop output	167	83.5%	152	76.0%	319	79.8%
Not able to cultivate some products	179	89.5%	195	97.5%	374	93.5%
Feeling poor and less social status	111	55.5%	5	2.5%	116	20.0%
<b>Total</b>	<b>200</b>		<b>200</b>		<b>400</b>	

**3.2.9 Crops not grown after displacement:** The particular crops which the DPs were not able to grow after displacement, was also studied. It was seen that paddy was reported by more DPs in UIP than in UKP. The crops which the DPs are not able to grow include mostly ragi, alasi (niger) and pulses. The tribal DPs are used to these crops both for subsistence and commercial purposes and now they are not able to grow these due to limited size of land and no irrigation facility. In this context, it may be noted that the DPs had reported that in their earlier places their lands had irrigation from streams all round the year and they had the facility to grow a variety of crops even in summer also. Now they have limited land and no irrigation facility. Uplands are more limited, and due to this reason not only the crop output has reduced but many crops are not being cultivated anymore.

Crops not grown after displacement	Indravati		Kolab		Total	
	No	%	No	%	No	%
Paddy	77	43.0%	57	29.2%	134	35.8%
Ragi	95	53.1%	129	66.2%	224	59.9%
Alasi	119	66.5%	167	85.6%	286	76.5%
Maize	10	5.6%	10	5.1%	20	5.3%
Pulses	30	16.8%	9	4.6%	39	10.4%
Vegetables	7	3.9%	3	1.5%	10	2.7%
Suan	4	2.2%	-	-	4	1.1%
<b>Total</b>	<b>175</b>		<b>195</b>		<b>374</b>	

# CHAPTER IV: SOCIO-ECONOMIC STATUS: AND EFFECT OF DISPLACEMENT

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4.0 This chapter discusses some core socio-economic issues and attempts to assess the current status and compares it to the status before displacement so as to identify the effects of displacement on the life of the DPs.

## 4.1 HOUSING

**4.1.1 Ownership of homestead land and house:** Ownership of house has suffered marginally and whereas 5 DPs were not living in their own house before displacement, now 10 DPs (all in UIP) do not own the house that they are living in. Regarding the ownership of the homestead land, it is seen that previously only 52% owned the homestead land whereas now 82% of the DPs own the homestead land. About 15% of DPs are having their house on encroached govt. land whereas about 1% are living as tenant. There is a need to carry out advocacy with the govt. to transfer the ownership of govt. homestead land to the DPs. Ownership with documents will also enable them to place their house as mortgage for any exigencies in future.

House ownership	Before displacement	After displacement
Living in own house	98.8	97.5
Living in house owned by others	1.2	2.5

**4.1.2 Size of house and number of rooms:** The size of the house was assessed in various ways. In terms of area, currently the average size of the house of the DP is about 381 sq.ft., whereas it was 287 sq. ft. before displacement. In terms of no. of rooms, currently 28% of DPs have more than two rooms, compared to 17% earlier. Before displacement about 11% of DPs had just one room only, whereas now only 3% have 1 room in the house. Thus, the status of housing has improved now both in terms of size as well as no. of rooms.

Land ownership	Before displacement	After displacement
Own land	52.1%	83.2%
Encroached govt. land	46.6%	15.5%
Tenant	1.3%	1.3%

Particulars	Before displacement	After displacement
Average Size of house (in sq. ft.)	287	381
<b>No. of rooms</b>		

<= 2 rooms	83	72
>2 rooms	17	28

**4.1.3 Quality of floor, walls, roof:** Almost all the DPs had mud floor in their house whereas now 33% have cement or tiled floor. About 98% of DPs had walls of their house made of twigs and mud, whereas 78% of DPs now have house with brick and cement or brick and mud walls. There is improvement with respect to roof also. Whereas 91% had thatched roof earlier and 7% had tile roof and only 1% had RCC roof, now 20% have RCC roof, 8% have tile roof and 63% have tin roof with plastic sheet over it. Thus, with respect to walls, floor and roof, the condition of house has improved a lot after displacement. Since the DPs made new house with RA amount, they made better houses compared to their earlier house.

**4.1.4 Facilities in the house:** About 88% of DPs had a cattle shed in their earlier house whereas the proportion has decreased marginally now to 85%. There is dramatic change with respect to electric connection to the house, and 91% of DPs have connection now compared to 2% earlier. But this is mainly due to the recent programme of the govt. to extend electricity connection to houses in remote tribal areas free of cost. Possession of kitchen garden has increased marginally from 7% to 10%. Private water connection inside the house still remains a dream and only 1% have this facility now. A toilet inside the house is now afforded by 5% or the DPs compared to 1% earlier. About 32% have a toilet outside the house compared to 7% earlier. Therefore, access to toilet has improved a lot. But this is not very encouraging in the light of the Swachh Bharat Mission in which free toilets were given to all households. About 62% of the DPs reported that they are going for open defecation now also.

Parameters	Before displacement	After displacement
<b>Land ownership</b>		
Own land	52.1%	83.2%
Encroached	46.6%	15.5%
Tenant	1.3%	1.3%
<b>Floor Material Type</b>		
Mud	99.7%	63.0%
Cement		36.0%
Tile	0.3%	1.0%
<b>Wall material type</b>		
Mud and twigs	97.7%	21.3%
Mud and bricks	2.3%	56.5%
Brick and cement		22.3%
<b>Roof Material Type</b>		
Thatched	91.5%	9.8%
Tile	7.3%	7.8%
RCC	1.3%	19.8%
Tin/plastic sheet		62.8%
<b>Households having cattle shed</b>	88.8%	85.5%

<b>HHs having electrification</b>	2%	91.8%
<b>HHs having kitchen garden</b>	7.3%	10.5%
<b>HHs having water inside house</b>	0.8%	1.3%
<b>HHs having toilet:</b>		
In the house	1%	5%
Outside	7%	32%
Open defecation	92%	62%

**4.1.5 Source of water in the house:** About 82% of the DPs now draw water from a deep tube well as these have been now provided in almost all the villages, whereas earlier about 1% had access to deep tube well and majority were taking water from river/nallah and shallow tube wells and ponds. This water is used by all for drinking and cooking. For bathing and washing, majority still prefer river/nullah and ponds. With the facility available now, about 34% are taking bath under the deep tube well also as it is closest to the habitation compared to other sources.

Source of water	Drinking		Cooking		Bathing		Cattle/Others	
	BD	AD	BD	AD	BD	AD	BD	AD
Shallow/open/community well	8.5%	2.5%	8.5%	2.5%	2.5%	0.5%	2.5%	0.8%
River	70.0%	2.3%	71.5%	2.3%	95.0%	26.8%	95.5%	60.8%
Pond		4.5%		4.5%	1.0%	37.0%	0.8%	18.3%
Shallow tube well		2.8%		2.8%		0.3%		2.0%
Deep tube well	7.3%	83.0%	5.8%	83.0%	0.8%	34.8%	0.8%	17.5%
Others	14.3%	5.0%	14.3%	5.0%	0.8%	0.8%	0.5%	0.8%

***Ownership of homestead land has increased from 52% to 82%. The status of housing has improved now both in terms of size as well as no. of rooms. The quality of walls, roof and floor has also improved after relocation. Water facilities has improved and most people now draw water from deep tube wells and some have piped water facilities. About 32% of houses now have toilet facility. Almost houses of DPs now have electricity connection.***

## **4.2 POSSESSION OF LIVESTOCK**

**4.2.1** The tribal families have a good relation with varieties of livestock and every household possesses some or the other livestock. It is seen that the tendency still persists but overall the proportion of DPs keeping different livestock has decreased marginally from 92% to 87%. About 53% of the DPs have cow compared to over 70% who had cows earlier. Lack of space for a cattle shed and lack of space for grazing are both factors which affects

possession of cows by the DPs in the new place. The mean no. of cows has decreased also from 3.4 to 1.6. However, possession of bullocks and he buffaloes has decreased marginally from 72% to 66%. The mean no. of bullocks has decreased from 1.87 to 1.35. This may be due to the dependence of the farming families on the bullocks for ploughing the land. About 42% of DPs have goat/ sheep now compared to 53% before displacement. The mean no. of goats has decreased from 2.45 to 1.68 per DP. Pigs were never popular and now 3% of DPs have pigs compared to 8% earlier. The mean no. of pigs is now at 0.1 compared to 0.26 earlier. The proportion of those keeping poultry bird remains the same at 59% both before and after displacement. The space requirement for poultry being less, there has been no effect of change in location and change in house on keeping poultry birds. However, mean no. of birds per DP has decreased from 3.26 to 2.81 after displacement. Thus, not only the proportion of people keeping different livestock has decreased, but the mean no. of each animal possessed by the DPs have also decreased, though not drastically.

Livestock particulars	Mean no. of animals		No. of DPs owning animals	
	BD	AD	BD	AD
Cow	3.38	3.38	279	211
Bullock/He buffalo	1.87	1.87	289	263
Buffalo	0.35	0.35	56	38
Goat /sheep	2.45	2.45	213	169
Pigs	0.26	0.26	30	12
Poultry	3.26	3.26	235	233

*The proportion of DPs owning any livestock has come down marginally from 92% to 87%. Due to various reasons, the proportion of people keeping different livestock has decreased marginally, and the mean no. of each animal possessed by the DPs have also decreased for cows, bullocks, buffaloes, goats and sheep, pigs, and except for poultry birds.*

### 4.3 CLOTH PAIRS POSSESSED

4.3.1 The status of the DPs with respect to clothes they have for wearing was also assessed as part of the effort to assess the economic situation. Here it is seen that the cloth availability per DP has improved after displacement. While the DPs had 1 pair on the average before displacement, now they have two pairs of clothes per DP. Most DPs reported that they now have 2 to 4 pairs of clothes per person whereas earlier their family members were managing with just one pair.

Cloth pair possessed	Before displacement	After displacement
<2	100.0%	0.5%
'02-4	0.0%	99.5%
<b>Total</b>	<b>400</b>	<b>400</b>

***Possession of clothes has increased drastically and whereas all DPs had within 2 pairs of clothes earlier now almost of them have more than two pairs of clothes.***

#### **4.4 CROP OUTPUT**

Farming is the main occupation of the DP families and seems to have been affected due to loss of land in their old village and buying of land in the new place of resettlement. Availability of land for farming has indeed been reported by the DPs to be one of the factors guiding the selection of the habitation to settle down. In this light, the output of different crops from their farm land reflects the type of land they were able to buy for farming and also the level of nutrition available to the DP families.

With respect to paddy, the main crop in eastern India, it is seen that overall the output has increased marginally from 1093 kg to 1106 kg. This may be mainly because the DPs were earlier having more dongar land whereas after displacement they were able to buy plain land mostly and this land is more suitable for cultivating paddy.

<b>Crop Output from Land (average)</b>	<b>BD</b>	<b>AD</b>
	<b>Kg</b>	<b>Kg</b>
Paddy	1093.53	1106.64
Ragi	355.04	228.71
Alsi	236.54	7.82
Maize	63.50	95.33
Pulses	73.30	3.86
Sunflower/ mustard/ Rashi	9.50	.70
Vegetables	17.55	.88
Suan	135.96	44.73
Cutting	12.78	13.44
Chana	2.00	2.56
Ginger	1.75	.75

The production of ragi has decreased from 355 kg to 229 kg. This is most probably due to the decrease in availability of dongar land where ragi is mostly cultivated. However, DPs in the rehabilitation colonies in Kotpad area reported that they are now cultivating ragi in plain land and the productivity is very good.

Another very popular cash crop is alsi or niger which is mostly cultivated during winter in dongar land. With decreased availability of dongar land the production of alsi has decreased drastically from 236 kg to 8 kg. DPs also reported that there is decrease in demand for alsi and traders from outside are not coming for procurement anymore. Alsi has almost vanished from the resettlement area.

Maize is another crop which is currently very popular and visible on dongar lands. The average production of maize has increased from 63kg to 95 kg. This is a very hardy crop and survives adversities of nature and there is a good procurement system also and

farmers do not have to take this to mandi and it is bought from the village by the traders with cash payment. This is a very popular cash crop now in the resettlement area.

Other major items which have decreased recently after displacement include pulses, suan, oil seeds, vegetables, etc. The production of pulses has decreased drastically from 73 kg per head to just 3 kg. Oil seeds has decreased from 9.5 kg per head to 0.7 kg, which is not even sufficient for household consumption. Production of vegetables has decreased from 17.5 kg per head to less than 1 kg. Another item Suan has also decreased in a major way from 225 kg per head to 72 kg. A similar crop is "Cutting" which is also very popular but its production has decreased marginally from 284 kg per head to 224 kg. All these were very popular earlier in the area but recently most of these crops have declined in production as the dongar land is limited and only those which are either major subsistence items such as ragi or have good demand as cash crops such as maize is being produced and other ones have decreased drastically. However, these were providing variety to the diet of the local DPs and were making their meals wholesome, but currently only few varieties are being cultivated and this has also limited the nutrition levels of the DP families.

***Paddy is the major crop and its production has increased very marginally in the resettlement area. Ragi is the second major crop and its production has decreased moderately. Niger is another item which was produced earlier in a major way but this has almost vanished from the area. Maize has increased its presence to some extent. Cutting is another locally popular crop which has maintained its presence. Many crops which were mainly grown in dongars and were popular earlier but have decreased now include suan, oil seeds, vegetables, pulses, etc.***

#### **4.5 LAND HOLDING PATTERN**

Land is the main issue in displacement and also in resettlement. DPs have lost land and have made effort to compensate for the loss by buying land and settling down in the new place. Land is not available in the open market and with all the DPs looking for land, buying new land is a tricky business and it takes a lot of effort and enterprise to buy land which suits the purpose of building a house, cultivating and with lots of common lands with forests in close proximity. In this case of UKP and UIP and considering tribal DPs, land is more crucial as it is the source of sustenance for the tribals and it is also the place where their Gods are fixed and a variety of cultural activities are carried out around it. The attachment of the tribal's to the forests also implies that they have to live in the vicinity of forests for both livelihood and mental peace. In this context, the pattern of land ownership by the tribal DPs is to be observed.

**Homestead land:** The homestead land of the DPs has increased very marginally after displacement. It was 0.24 ac. before displacement and now it is an average of 0.27 ac.

Besides the house, about 58 DPs had kitchen garden adjacent to their house with average land size 0.18ac. whereas now only 23 DPs have kitchen garden with average space of 0.19ac.

#### Homestead Land details

Particulars	Homestead land area (acres)	Land under kitchen garden (acres)
Before displacement	0.24	0.18
After Displacement	0.27	0.19

**Cultivable land:** The average cultivable land owned by the DPs before displacement was 4.29 acres. After displacement the average area of land owned is 1.6 acres. The number of DPs owning land has increased from 279 before displacement to 340 after displacement. Thus, the number of landless DPs has decreased, and many landless DPs have succeeded in buying land after displacement. But the area of land owned has decreased drastically. Regarding the status of irrigation facility available in the land, number of DPs owning irrigated land has reduced from 205 to 186, and the area of irrigated land owned has reduced from 1.27 ac. to 0.79 ac. The average area of un-irrigated land has also reduced from 3.02 to 0.81 ac. after resettlement.

Particulars	Cultivable land owned (in acres)	No. of DPs	Irrigated agricultural land (in acres)	No. of DPs	Non-irrigated agril. Land (in acres)	No. of DPs
Before displacement	4.29	279	1.27	204	3.02	259
After displacement	1.60	341	0.79	183	0.81	198

**Operational land holding:** In addition to land owned by DPs, they also operate some amount of land which they do not own. Traditionally, tribals used to cultivate the uplands and dongars which they did not own but they had traditional and customary rights over that piece of land. A large part of the crops of the tribal people was derived from cultivating the dongars. After displacement, in the new place of settlement, the tribals did not have access to such dongars as those were already being cultivated by the local host population. Yet, where ever empty govt. land was available, tribal DPs in those settlements encroached on the dongars and started cultivating it. This section analyses the pattern of operational land holding before and after displacement.

The average operational holding was currently found to be only 0.67 acres, compared to an average of 1.06 acres before displacement. Most of the operated land is of upland category. Average area of upland operated before displacement was 0.96 ac., whereas the average area of upland operated is only 0.63 ac. after displacement. This shows that the operational holding of the DPs has reduced a lot after displacement.

Particulars	Average land operated (in acres)	No. of DPs	Average plain land operated	No. of DPs	Average upland/dongar operated	No. of DPs
<b>Before displacement</b>	1.06	232	0.10	44	0.96	227
<b>After displacement</b>	0.67	187	0.04	19	0.63	172

**Land owners or category of farmers:** Overall, the land holding of tribal DPs decreased much after displacement and they were reduced to small and marginal farmers according to their land holding after displacement. This section analyses the shift of the land holding farmers from one category to other categories after displacement. It is observed that there were 121 landless DPs before displacement but their numbers decreased to 60 after displacement and 61 landless DPs were able to buy some land and shifted to other categories of farmers. Observing the land holding status of the DPs before displacement, it is seen that while 30% were landless, 22% were marginal farmers, 22% were small farmers, 13% were in the category of medium farmers and 11% were large farmers. After displacement, land holding pattern shows that while 15% are landless, 78% are marginal farmers and about 7% are in the category of small and medium farmers. Thus, land holding has reduced drastically and a large majority of DPs (93%) are in the category of landless or marginal farmers. This indicates rampant landlessness among the tribal DPs due to displacement.

#### Land holding and category of farmers before and after displacement

Particulars		Cultivable Land after displacement and category of farmers				Total farmers before displacement
		Landless	Upto 2.5 acres	2-51-5.00 acres	5.01-10 acre	
Cultivable land before displacement and category of farmers	Landless	12	104	5	0	121
		9.9%	86.0%	4.1%	0.0%	100.0%
		20.0%	33.4%	20.0%	0.0%	30.3%
	Upto 2.5 acres	17	68	3	0	88
		19.3%	77.3%	3.4%	0.0%	100.0%
		28.3%	21.9%	12.0%	0.0%	22.0%
	2-51-5.00 acres	25	62	5	0	92
		27.2%	67.4%	5.4%	0.0%	100.0%
		41.7%	19.9%	20.0%	0.0%	23.0%
	5.01-10 acre	4	44	6	0	54
		7.4%	81.5%	11.1%	0.0%	100.0%
		6.7%	14.1%	24.0%	0.0%	13.5%
	>10acres	2	33	6	4	45

		4.4%	73.3%	13.3%	8.9%	100.0%
		3.3%	10.6%	24.0%	100.0%	11.3%
	<b>Total farmers after displacement</b>	<b>60</b>	<b>311</b>	<b>25</b>	<b>4</b>	<b>400</b>
		15.0%	77.8%	6.3%	1.0%	100.0%

*The average area of homestead land has improved marginally from 0.24 acres to 0.27 acres. The area of cultivable land has decreased from 4.29 acres to 1.6 acres. The area of irrigated land owned by DPs has decreased from 1.27 acres to 0.79 acres. The area of unirrigated land has decreased from 3.02 acres to 0.81 acres. Operational land holding of the DPs has decreased from 1.06 acres to 0.67 acres. Due to reduction in the size of land after displacement, the proportion of landless has decreased from 30% to 15% but the proportion of marginal farmers has improved drastically from 22% to 78%. The land holding status of most small, medium and large farmers has come down and a large majority of them have been rendered marginal farmers after displacement.*

#### 4.6 ANNUAL HOUSEHOLD INCOME FROM VARIOUS SOURCES

The income of the DPs is derived from different sources including cultivation, labour, business, forest produce collection, etc. The annual income was enquired in the survey. It is seen that the average annual income of the DPs after displacement is Rs.54763/-. The income from agriculture is Rs.21649 and this accounts for more than one-third of the total income from all sources. Thus, cultivation contributes to the income of the family to maximum proportion. The income from labour comes next at Rs.10887/-. This includes both agriculture labour at Rs.5615 and non-agricultural labour at Rs.5272/-. Income from job is enjoyed by few DPs only but contributes a lot to the family income for those DPs. The income from govt. job is found to be Rs.4899 and that from private job is reported to be Rs. 1817. Another substantial source of income is fuel wood and average income from this is found to be Rs.2964. Income from a variety of NTFPs is found to be Rs.841. Another source of income which is very popular and is adopted by many DP families is stone chipping work. Income from this source is found to be Rs.1829 on an average. Livestock was reported to be yielding an average of Rs.272 only.

Comparing the income before and after displacement, it is seen that the income of the DPs has remained equal more or less, when the increase in the Consumer Price Index is also considered. The Consumer Price Index was 22.95 in 1990 and it was 142.9 in June 2019. Thus the CPI has increased by 6.22 times before and after displacement. However, it may not be appropriate to make such finer comparison in income of the DPs after about 30 years. Recall of the DPs about previous income is based on recall after 30 years and recall error is likely to be enormous. Moreover, literacy level among the DPs is low and this makes calculation of income after so many years still more difficult. There is also a tendency among the DPs to exaggerate their previous income. Considering all these factors, it seems appropriate to conclude that income of the DPs has remained more or less equal after displacement. However, the proportionate contribution of different activities to income has changed a lot. While cultivation was the main source of income

previously, its contribution has decreased after displacement and the proportionate contribution of labour and other labour based activities has increased. Since land holding decreased after displacement, the DPs were forced to enhance their income from different sources.

Sources of Annual Income (Mean value)	Before displacement (value in Rs.)	No.	%	After displacement (value in Rs.)	No.	%
Agriculture	5604.22	388	59.2%	21648.79	393	39.5%
NTFP	1342.25	343	14.2%	590.87	133	1.1%
Fuel wood	1021.88	396	10.8%	2964.00	386	5.4%
Casual Labour	362.70	266	3.8%	5272.50	248	9.6%
Livestock	355.00	82	3.7%	272.50	24	0.5%
Agri labour	272.66	210	2.9%	5615.58	300	10.3%
Edibles: fruits, tubers, etc.	112.75		1.2%	251.43		0.5%
Kendu leaf	49.88	30	0.5%	247.00	50	0.5%
Government job	33.00	1	0.3%	4899.50	12	8.9%
Stone chipping	0.01	4	0.0%	1829.26	94	3.3%
Private Job	0.00	0	0.0%	1817.00	24	3.3%
Shop/business	0.00	0	0.0%	277.50	2	0.5%
Self Employed	0.00	0	0.0%	731.50	7	1.3%
<b>Total Family income</b>	<b>9472.96</b>		<b>100.0%</b>	<b>54763.57</b>		<b>100.0%</b>

*The average annual income of the sample of DPs has increased from Rs.9473 to Rs.54763 after displacement. Besides, the percentage contribution of different items to the annual income has also changed after displacement. The contribution of agriculture has decreased from 59% to 39%, The contribution of two other major items, NTFP and Fuel wood has also decreased from 14% and 11% to 1% and 5%, respectively. The contribution of labour (agricultural and non-agricultural labour) has together increased from 7% to 20%. The contribution of jobs (both pvt. and govt. jobs) has increased from 0.3% to 12%. Stone chipping work, which did not feature at all before displacement, now contributes 3.3% to annual income of the DPs.*

#### 4.7 PARTICIPATION IN WORK AND MIGRATION

Women and men participate equally in working for income of the household in tribal families. Women participate in different ways including wage labour besides their exclusive participation in certain household work. In this case, about 94% families reported that the women participate in work. The extent to which they contribute to family income was also asked. Different families reported different degrees of participation and the mean contribution of women to family income is found to be 38%.

**Migration:** Only 10% of the DPs reported that someone migrates out for work, mostly in UIP area. In all these families men were reported to be migrating out for work, mostly one member only. The period for which they migrate was also enquired and it is seen that they migrate for a mean period of 144 days. Mostly the men were reported to be doing mason

work, while some are doing painting work. Some also do tailoring work and farming work. The contribution through migration was assessed and as reported, the contribution ranges from Rs.9000 to Rs.60000. The mean contribution through migration is found to be Rs.21324/.

#### Income from Migration

<b>Noof people going for Migration</b>	40
<b>Average income from Migration</b>	21324.32

**Women:** In 6 families in UIP the women were also reported to be migrating out for work. Three families reported tailoring work as the reason, while 2 reported helping in mason work and 1 was doing farming work. Women migrants contribute between Rs.4800 to Rs.28000/-, and the average income by women workers is Rs.10466/-.

<b>No. of women going for migration</b>	6
<b>Average income of women from migration</b>	10466.66

*Women and men participate in work equally. Women participate in work and income in about 94% of the DP families and their contribution to family income is estimated to be 38%. Migration was reported in about 10% of the DP families and the average number of days of migration was reported to be 144 days. The income from migration was reported to be average of Rs.21324/-. Men migrate for mason work, painting work, farming and tailoring work. About 6 women also migrate out for work and the average income earned by them is about Rs.10467/-.*

#### 4.8 FOOD AND NUTRITION

The amount of food available to the family in terms of number of meals per day was enquired and it is seen that the food and nutrition situation has improved slightly as previously about 67% were having enough food throughout the year whereas after displacement about 95% have enough food. Earlier 29% had two meals per day with occasional shortages but now only 5% are in this condition and no one is poor enough to have one meal per day whereas previously about 4% were in this condition.

<b>Status of food in the family</b>	<b>Before displacement</b>	<b>After displacement</b>
One meal per day throughout the year	4.0%	
Two meals per day, with occasional shortage	115 28.8%	21 5.3%
	269	379

Enough food throughout the year	67.3%	94.8%
<b>Total</b>	<b>400</b>	<b>400</b>

What people are taking in different meals was also observed. It is seen that the pattern of fooding is slowly changing from ragi to rice. In breakfast, now 71% are taking *pakhala*(rice left overnight in water) whereas previously about 76% were taking mandia pej (ragi gruel). About 30% are taking tea and some dry snacks in breakfast. For lunch, about

Items consumed in the family for lunch	Before displacement		After displacement	
	No.	%	No.	%
Mandia peja	132	33.0%	13	3.2%
Pakhala	159	39.8%	150	37.5%
Rice, curry	249	62.3%	372	93.0%
Suan jau	12	3.0%	2	0.5%
Tea & dry food	-		3	0.75%
<b>Total</b>	<b>400</b>		<b>400</b>	

93% are taking rice curry and about 37% are taking pakhala sometimes also, whereas previously 62% were taking rice curry, 40% were taking pakhala and about 33% were taking manida pej. In dinner, about 95% are currently taking rice curry whereas about 67% were previously taking this food earlier. Thus the trend is more towards rice and curry and pakhala whereas it was previously dominated by mandia pej. This seems to be influenced by the free availability of rice under food security programme and also due to increased cultivation of rice due to buying of plain lands as opposed to cultivation of ragi on dongar lands previously.

Items consumed in the family for Dinner	Before displacement		After displacement	
	No.	%	No	%
Mandia peja	35	8.8%	15	3.8%
Pakhala	114	28.5%	46	11.5%
Rice, curry	269	67.3%	378	94.5%
Suan jau	101	25.3%	8	2.0%
Tea & dry food	11	2.8%	12	3.0%
<b>Total</b>	<b>400</b>		<b>400</b>	

**4.8.1 Food availability to infants, children and mothers:** Food is now a day's also being given to different vulnerable categories through different institutions and in this context it was found that children of about 58% of DP families are getting food in schools, 38% are getting food in Anganwadi for infants and pregnant and lactating mothers. This adds to the nutritional levels of the DP families.

***The availability of food to DP families has improved after displacement and the proportion of those having enough food has increased from 67% to 95%. About 5% are having two meals per day as opposed to 29% having two meals per day before displacement. The pattern of food consumed by the DP families has also changed in favour of rice from ragi steadily in breakfast, lunch and dinner.***

#### **4.9 SAVINGS**

People save different amounts for their bad days and in this context the saving pattern of the tribal DPs was observed. It is found that DPs have saved different amounts in banks, at home and also in SHGs. Few have also saved in the form of gold. About 60% of DPs have saved an average amount of Rs.2887/- in bank, whereas 28% have saved an average of Rs.1900 in SHGs. Additionally, about 8 DPs have invested in gold worth Rs.1000/.

However, besides gold and cash, people also invest in livestock so as to sell it in times of need and it is seen that many DPs have kept livestock which can be used for this purpose.

<b>Type of savings</b>	<b>Average amount saved (in Rs.)</b>	<b>No. of people saving</b>
Cash	2887.86	243
SHG	1898.21	112
Gold	1037.50	8

***The DP families are saving different amounts in cash at home, in SHGs in their villages and also in the form of gold. The average amount saved and the highest number of people saving money is maximum in cash, followed by SHG and least in the form of gold. A maximum number of 243 families have saved an average amount Rs.2887 in cash at home.***

#### **4.10 BORROWINGS AND LOANS**

Usually the tribals are not in the habit of taking loan as they fear confiscation of their land and property if they fail to pay back. But due to the event of displacement and the pressure of buying land and house and the need for cash, the DPs are now used to loans and borrowings. It is observed that before displacement only 1 DP had taken loan whereas now about 20% have taken loans.

The purpose of taking loans was also looked into and it is seen that currently only 10% of the loans is for consumption purpose and about 90% of the loans have been taken by the DPs for productive purposes or for any investment, whereas previously before displacement about half of the loans were taken for consumption purpose and half were for productive purposes.

##### **4.10.1 Loan pattern before displacement**

Source of Loan	After displacement
Bank	77.5%
SHG	2.5%
Hand loan	1.3%
Others	18.8%
<b>Total</b>	<b>80</b>
<b>Average amount of loan (in Rs.)</b>	<b>23343.75</b>
Purpose of loan	
Agriculture	86.3%
Construction of house	1.3%
Purchase of land	2.5%
Purchasing durables	2.5%
Meeting day to day expenses	3.8%
Children marriage	1.3%
Others	2.5%
<b>Total</b>	<b>80</b>

Further the ease of getting a loan was also discussed and it is seen that majority of DPs (81%) feel that they can get a loan whenever required.

Who had taken loan	After displacement
Head of the HH	60.2%
Spouse	18.1%
Son	6.0%
DIL	13.3%
Head and spouse together	1.2%
Others	1.2%

***Whereas only 1 DP had taken loan before displacement, about 20% of the DP families have currently taken loan. Almost all the loans have been taken for productive investment and only 5% have been taken for consumption. The average amount of loan is Rs.23343/- and most of the DPs have taken loans from banks. 86% of the loans have been taken for investment in agriculture.***

#### **4.11 HOUSEHOLD EXPENDITURE PATTERN**

Given the average annual income of the DPs currently, their expenditure pattern over different items was also looked into. Overall, the largest proportion of expenditure (64%) is on food items for the family. This is quite natural given the poor status of the DPs where income is low and hence the expenditure on food occupies a major share of the total family expenditure. The next major expenditure is on different components or activities related to agriculture or any other occupation that the family has. All occupations need some expenditure and it is to be met out of the family income and this occupies about 9% of the

total family expenditure. The third major item is social functions and this takes about 6% of the total expenditure. About 6% of the expenditure is claimed by clothing for the family. It has already been discussed that the clothing status of the family is better now and people have multiple sets of clothing now as opposed to 1 or 2 pairs earlier. A regular portion of the expenditure is accounted for by house construction or repair. Next, health expenditure is a major expenditure, given the health status of the tribals in the remote areas and their traditional beliefs and life style. Transport and communication is another expenditure item and this is likely to be high given the remoteness of the habitations and the need for commuting daily to work place, educational institutions, or market. Electricity bill is another visible item and this belies the fact that almost all the house have electricity connection, even though situated in remote areas. Cooking fuel which is claiming a major part of the family expenditure in families currently, accounts for a very low portion here and this is because most families collect their own fuel from the nearby forests or common areas. People reported that due to the distance of the forests which is still growing far and forests are also being depleted slowly, they have to satisfy themselves with thin twigs now whereas earlier they were getting thick stems and were using it for more days. Now they are able to get less and hence have to go to the forests more often.

Expenditure in the family is not a passive consequence of meeting the needs of the family but is also a result of the various fund-saving activities and strategies that the family members adopt in order to reduce expenditure on certain items. Family members go through various back-breaking work in order to save money from some items so that funds can be spent on certain other necessary items. Women collect fuel wood regularly from the forest and the commons so that they can save on fuel for the family. Both men and women and also children and students walk for long distances so as to save expenditure on transport. However, family members also pointed out that earlier their expenditure was less on many items and they were buying only few items such as salt, kerosene, and clothes for the family. They were getting many items free from the forests such as fruits, tubes, other food items such as karadi, fish from the rivers and streams, animal meat from the forests by hunting, timber for house construction, leaf for making plates for eating, roots and other items for use as medicines, etc. They collect mango, jack fruit, berries, saga, etc., from the forests so that they do not have to buy these. Women described how they were getting up very early in the morning and processing paddy by using manual equipments and by doing hard labour to get rice so that they do not have to spend funds outside for this purpose. Throughout the day they would toil hard in doing so many activities so as to save funds from family expenditure.

Items of expenditure	Expenditure before displacement (in Rs.)			Expenditure after displacement (in Rs.)		
Food	5271.13	400	67.7%	29913	400	63.7%
Social functions entertainment	914.75	400	11.8%	3093.63	299	6.6%
Clothing	798.75	399	10.3%	2955.88	399	6.3%
Health	245	284	3.1%	1262.58	344	2.7%

Agriculture Occupational related	166	102	2.1%	4307.25	361	9.2%
Transport	135.15	156	1.7%	1331.13	320	2.8%
Housing Construction repairing	125.13	143	1.6%	1218.75	239	2.6%
Communication	73.875	100	0.9%	864.63	260	1.8%
Electricity bill	10	4	0.1%	799.1	347	1.7%
Education	8.25	9	0.1%	702.63	182	1.5%
Cooking fuel	3.5	4	0.0%	386	87	0.8%
Others Specify	32.5	8	0.4%	111.38	9	0.2%
<b>Total</b>	<b>7784.03</b>	<b>400</b>	<b>100%</b>	<b>46945.93</b>	<b>400</b>	<b>100%</b>

*The average family expenditure has decreased after displacement for food, clothing, social functions and health, whereas the expenditure has increased most for agriculture, and marginally for transport, house construction and repair, education, electricity, cooking fuel, and communication.*

#### 4.12 HEALTH STATUS OF DPs

Displacement brings in much uncertainty for the DPs and due to this the regular lifestyle of the DPs is affected. They are suddenly forced to live in unfamiliar surroundings, eat on irregular hours and unfamiliar food, etc. This is likely to affect the health of the DPs adversely. Literature also specifies that morbidities are likely among DPs due to the unhygienic conditions and due to lack of sanitation in the new place. However, in this case the enquiry is being done after a long time and by this time the people have resettled in the new area and hence they are not likely to suffer from any ill effects for so long. Questions were also asked about the health condition of the DPs just after shifting to a new place so as to identify any adverse effects of displacement on the DPs.

**4.12.1 Health problems in the new habitation:** A large majority of DPs (96%) pointed out that they did not suffer any health problem after shifting to a new place. It may be noted here that the DPs were earlier staying in the midst of hills and forests and they moved to a place which was relatively plain and clear from forests and was also dry compared to the previous place. There is a likelihood that incidence of many health problems, mostly malaria, would decrease in the new place.

Effect of displacement on health of DPs	After displacement	
	Nothing	385
Malaria	5	1.3%
Rheumatism	3	0.8%
Skin infection	1	0.3%
Chest pain	1	0.3%

Asthma	1	0.3%
Joint pain	1	0.3%
Gastric	1	0.3%
Fits	2	0.5%
<b>Total</b>	<b>400</b>	

**4.12.2 Current health status:** The current health status of the people was also looked into and it is seen that 38% of people reported that someone in the family had suffered from some problem in the last one year. The problems reported by most include fever, cold/cough, joint pain and gastric problems. There is no mention of any chronic or major problem. During discussion, the older DPs reported that they are suffering from joint pain and gastric problems currently due to consumption of food mixed with chemical fertilizers and pesticides, whereas earlier they were having natural and organic food and they were staying healthy.

**4.12.3 Health seeking behavior:** Health seeking behavior was also looked into and people were asked where they went for treatment. Almost all (96%) reported going to the govt. allopathic doctor and few reported going to private allopathic doctor. No one reported going to traditional healer anymore. The health facility nearest to their habitation was reported to be a CHC by 62% of the DPs whereas 17% reported a PHC and 11% reported the district hospital.

Where do you usually go for treatment of health problems	After displacement	
	Nos.	%
PHC	38	9.50%
CHC	283	70.80%
District Hospital	62	15.50%
Private Clinic	16	4.00%
Others	1	0.30%

**4.12.4 Health seeking for childbirth:** A series of questions were asked relating to child birth so as to find out the pattern of health seeking and the health services utilization pattern by the DPs. Only 15 DPs reported a child birth in the last one year. Of these 7 were born at home and 8 were born in hospital. This is not a desirable condition as the health authorities are laying a lot of stress on institutional delivery. 13 families reported that the child has been vaccinated at birth. 13 of them also reported that the pregnant woman was visited by a health worker during pregnancy. 14 families reported that the mother was also immunized during pregnancy. 15 of them reported that they get Take Home Ration from the ICDS centre which is crucial for proper nutrition. However, only 7 of them reported that they attend the Mamata Divas, which is not a good sign for the health of the child and the mother. **Overall, health services for pregnancy and child birth, including both ante-natal and post-natal services, are not satisfactory and there is a need to strengthen ICDS and health these services in the area.**

Particulars	After displacement	
	Nos.	%
<b>Families which had a child birth in the last one year</b>	15	3.80%
<b>Where was the child born</b>		
Home	7	46.70%
Hospital	8	53.30%
<b>Total</b>	<b>15</b>	
<b>Families where newborn child was vaccinated</b>	13	86.70%
<b>Families which were visited by any health worker during pregnancy</b>	13	86.70%
<b>Families where pregnant woman attended Mamata Divas</b>	8	53.30%
<b>Services available in AWC</b>		
Immunization	15	100%
Monthly check up / weighing	10	66.7%
Hot meal	5	33.3%
Take home ration	9	60.0%
Pre school	4	26.7%
Mamata Divas	4	26.7%
<b>Total</b>	<b>15</b>	

**4.12.5 Accidents and deaths due to the project:** Project activities in any area imply influx of large number of people and vehicles from outside. There could also be various types of risks involved in the project and all these could lead to mortalities due to the project. Several cases of deaths in the project area were reported due to road accidents and due to other accidents such as land slide. Cases of drowning in the reservoir are reported regularly. There was a major tunnel disaster in the project area and many workers lost their lives. Mortality in the area has increased due to the project due to various types of accidents and mishaps.

*Overall, there is no sign of any major health problem in the area after displacement and the DPs did not suffer from any major problem. About a third of the DPs are suffering from some health problems currently. Regarding the current health seeking and utilization of health services, it is not a good situation and there is a need for focusing attention on building awareness among the DPs and also to streamline the health services in the area.*

#### **4.13 STATUS OF EDUCATION**

This section describes mainly the current status of education among the DPs. Since the status of education both in terms of service delivery through schools in the remote areas and in terms of going to school by the tribal children were both very poor in the undivided

Koraput district as per all statistics, there is not much to compare the current situation to the one 30 to 35 years before. So comparison has been made on limited parameters only.

**4.13.1 Distance of school:** In the old place, about 73% had a school within one km of their habitation and now 82% have a school within one km of their habitation. Mostly there are primary schools at the village level.

<b>Av. Distance from habitation to school</b>	<b>1.69 km.</b>
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**4.13.2 Attending school:** In 70% of the DP families children were not going to school and in 79% of DP families girls were not going to school. Currently 71% of the children are going to school and 64% of girls in DP families are going to school. Thus, attending school has improved a lot.

Particulars	Before relocation	After relocation	Currently	Before relocation	After relocation	Currently
	<b>Whether all children going to school</b>			<b>Whether all girls going to school</b>		
No one	69.8%	28.8%	31.0%	78.8%	36.5%	41.3%
Few	14.0%	33.0%	25.8%	7.3%	26.8%	17.5%
Most	3.0%	8.8%	9.5%	1.8%	6.3%	5.8%
All	2.3%	23.5%	27.0%	1.8%	21.3%	24.0%
No child in family	11.0%	6.0%	6.8%	10.5%	9.3%	11.5%

**4.13.3 Problems in attending school:** Regarding any problem faced by children in going to school, about 12% mentioned that the distance is a problem for the children, whereas 81% mentioned not having any problem.

<b>Problems faced in getting children educated in new place</b>	<b>Response (in %)</b>
Distance	12.5%
Difficulty to go to school	6.5%
No problem	81.0%

**4.13.4 Teacher attendance:** In 95% of the families, teachers were reported as coming to school regularly.

<b>Teacher coming to school regularly</b>	<b>95.5%</b>
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**4.13.5 Education level:** In 81% of DP families there was no education and only in 18% of DP families the highest level of education was primary level. Currently, it is found that 29% have no education, 56% have primary to secondary level education, and 14% are educated up to college level. 65% of the DP families agreed that the educational opportunities have improved compared to earlier period. They also agreed that the level

of education in the family has improved also. Thus, it is seen that the level of education has improved a lot.

Highest level of education of family before relocation	Before relocation	Currently
No education	81.0%	29.3%
Primary	17.5%	32.5%
Secondary	1.5%	24.5%
College		13.8%

Has the level of education of your family improved	Response in %
Improved	68.8%
Same	30.5%

**4.13.6 Drop outs:** 34% of DP families reported that some child has dropped out of school. Dropping out is not specific to any class and children have dropped out in every class from class 1 to class 9. The reasons for dropping out were enquired and 60% reported that the child had to work and 31% reported that education is not useful for them.

Any child has dropped out of school currently	34.3%	
If yes, which class did he drop out		
Class 1 to 5	57.6	
Class 6 to 9	42.2	
Reasons for dropping out		
Education not useful	38	31.4%
Difficult to go to school	9	7.4%
Teaching\teacher not good	1	0.8%
Child had to work	73	60.3%

This reflects the traditional mindset and it is worth noting that the mindset of not sending children to school still persists. Further, the level of education has improved but still it is not satisfactory as many children and girls are still out of school. Though some are going to college some have dropped out and this is not a desirable state of affairs, especially considering that there are Ashram school also which have good and free education facilities for tribal children along with stipend facility. Even though majority of DPs agree that the educational opportunities have improved, yet they are not taking advantage of this. There is an acute need for awareness and family contact drive in the area for making education more popular even though the situation has improved recently. There a need for parental counseling to send children to school and take advantage of the programmes of the govt. to educate children.

<b>Has the educational opportunities improved</b>	<b>Response in %</b>	
Improved	262	65.5%
Deteriorated	3	0.8%
Same	135	33.8%

*Distance to school has decreased marginally after relocation. Attendance of school has gone up from 30% to 69% and attending school by girls has increased from 21% to 59%. Majority of those not attending school do not mention any specific problem. In large majority of schools (95%) teachers are coming regularly. The level of education has increased and there are many children in secondary schools and colleges. Drop out was reported in 34% of families and the main reason was stated that the child has to go for work. There is a need for convincing people about the advantages of education and there is a need for awareness about the different opportunities and facilities for education of tribal children.*

#### **4.14 COMMON PROPERTY RESOURCES**

These resources include those which are not owned privately and are owned by the govt. but are used by the local people through customary rights. Most of it is within the boundary of a village and are used by the people of that village. However, there are cases when if it is in the vicinity of another village then it is also contested by the people of that village leading to conflicts. Many such common lands are also cleared and developed and cultivated by individuals and they exercise a virtual ownership over the resources for generations in common agreement with local people. This includes forests, common lands, grazing land, orchards, rivers, streams, ponds, etc. This is a major source of many things for the people. Tribals have lived with common properties and have been drawing sustenance from these resources traditionally. Earlier when these resources were not over exploited and were rich in resources, the tribal people used to get food materials, fuel, timber, fodder, etc., from these CPR. Recently, however, the scenario has changed everywhere with these CPR being over exploited and being devoid of resources. Protection measures have been initiated in most forests to make it rich with resources again. This has restricted the access of the local people to these areas and they are no longer able to get the materials of daily needs from the CPR. Currently, in most CPR people are able to get fuel wood only and other resources such as timber are controlled and restricted.

**4.14.1 Products:** While the CPR was earlier being used in a major way by the DPs before displacement for fuel wood, fruits, tuner/ roots, grazing and fodder, timber, berries, leaves for plates, medicinal products, and other NTFP, it is currently being used for fuel wood, grazing and fodder, and berries. About 33% still get kanda/tubers from the forests. The other uses has decreased drastically now after displacement. Land for cultivation is also not available anymore in the CPR.

<b>Items collected from CPR</b>	<b>Before displacement</b>	<b>After displacement</b>
Fuelwood	398	389
Fruits	366	37

Tubers\roots	370	137
Fodder\grazing place	332	356
Timber	373	84
Saga\berries	347	151
Medicinal products	336	22
Leaves for plates	353	54
NTFP	311	47
<b>Total</b>	<b>400</b>	<b>400</b>

**4.14.2 Who collects:** Those going to the CPR for getting resources home include men, women, girls and boys also. The proportion of men and women using the CPR is still the same but the proportion of boys and girls have shown an increase.

**4.14.3 Decrease in access to products:** Few comparative questions were asked about the extra effort made in collecting anything from the CPR after shifting to the new place. Overall, DPs reported that current collection from the CPR is about 30% of previous collection, considering all items.

**4.14.4 Distance to CPR:** Women now have to travel 2km to collect firewood. They also have to go about 2 km for grazing and for collecting fruits and tubers. Now they have to spend about Rs.700/- to buy fuel wood which they were getting free earlier.

Type of CPR available (mean value)	Av. Distance to CPR	
	BD	AD
Forest	.558	1.480
Barrenland	.792	1.452 1
Grazingland	.683	1.558 1
Streams/rivers	.5796	1.458
Orchards	.5641	2.660
Uplands	.8712	2.252 6

**4.14.5 Burial ground and grazing land:** Over 99% said that they have access to burial grounds in the new place. Over 98% also have access to grazing land.

**4.14.6 Conflicts:** Conflict is reported more in UKP, more so in the Rehabilitation Colonies where the DPs had to go far to a totally new block and did not have acquaintance or relatives there. About 42% reported that they have conflicts with the host population with respect to access to CPR. The conflict was reported to be over fuel wood and grazing land. The conflict lasted for about a year.

*While previously DPs were getting variety of products from the CPR, now it is mainly limited to fuel wood, fodder/ grazing, few fruits and berries, and tubers in some*

*places. The collection from CPR after displacement is about 30% of the previous collection. Now they have to go about 2 km. for collection of fuel wood or for grazing cattle. About 42% reported conflicts over access to CPR, mainly collection of fuel wood and grazing of cattle. This was reported more in the Rehabilitation colonies of UKP.*

#### **4.15 PARTICIPATION OF WOMEN IN FAMILY AND COMMUNITY ACTIVITIES**

To assess the role played by women in the family in decision making related to activities at the family level and also at community level, certain enquiries were made. DPs were asked whether the decisions at the family level are made by men, women or both. The matters asked include financial matter, education of child, health care of children, purchase of assets, day to day household activities, about social functions and marriages, whether women should work, and land and property purchase and sale.

Over 89% of the DP families reported that the decision is made jointly by both men and women. About 4% of DP families reported that women make decision and 6% reported that men make decisions. Thus, in overwhelming proportion of families the decisions are made jointly by both men and women. This is in line with the common knowledge that in tribal families women do play a role in every matter. They also earn for the family and participate in all activities equally. They also share the responsibilities of the family equally.

The role of the women in community affairs was also discussed. It is seen that only in 27% of DP families it was reported that women participate in decision making at the community level whereas in majority of cases the women do not play a role in community affairs. A related issue was also looked into to see the role women play at community level in the DP families. About 11% of DP families reported that women are working as community workers such as ASHA or ANM or Anganwadi Workers. About 20% of DP families reported that the women are office bearers in SHGs, village, GP, or community based organizations. Thus, it is seen that women are working at community level but very less proportion participate in community level decision making.

<b>Participation of women in family and community activities</b>	<b>After displacement</b>	
<b>Financial matter</b>		
Male	18	4.50%
Female	25	6.30%
Both	357	89.30%
Total	400	
<b>Education of child</b>		
Male	18	4.50%
Female	26	6.50%
Both	356	89.00%
Total	400	

<b>Health care of child</b>		
Male	18	4.50%
Female	26	6.50%
Both	356	89.00%
<b>Purchase of assets</b>		
Male	17	4.30%
Female	26	6.50%
Both	357	89.30%
<b>Day today household activities</b>		
Male	15	3.80%
Female	27	6.80%
Both	358	89.60%
Total	400	
<b>On social function and marriages</b>		
Male	15	3.80%
Female	27	6.80%
Both	358	89.60%
<b>Women to earn for family</b>		
Male	15	3.80%
Female	29	7.30%
Both	356	89.00%
<b>Land and property purchase</b>		
Male	17	4.30%
Female	26	6.50%
Both	357	89.30%
<b>Land and property sale</b>		
Male	17	4.30%
Female	26	6.50%
Both	357	89.30%
<b>Do women participate in decision making at the community level</b>		
Yes	110	27.50%
No	290	72.50%
<b>Any member working as AWW/ANM/ASHA</b>		
Yes	43	10.80%
No	357	89.30%
<b>Any member a member or office bear in village / block/ panchayat / SHG / CBO</b>		
Yes	81	20.30%
No	319	79.80%
Total	<b>400</b>	

*With regards to the role of women in both household and community affairs it is seen that most of the household decisions are taken jointly with women playing an equal role at the household level. However, only about 27% play any role in community level decision making. About 40% of women hold positions in community level organizations and work as community level workers.*

#### 4.16 SOCIAL DISARTICULATION

This is one of the major impacts of displacement which is reported by researchers and implementers. Since displacement takes a family away from its traditional habitat and the DP is forced to resettle in a new habitat with unfamiliar surroundings, his social networks break down and his social activities are affected. Since this study deals with tribal DPs, and tribal people are noted to be socially active among themselves, their social networks are mainly limited to their own tribe and friends and family members. Hence, if they are cut off from their own tribe people, their social life is severely affected. This section attempts to assess the degree of social disarticulation that displacement caused in UKP and UIP. For this, the distance to which people moved, whether they moved with their community people or alone, how frequently they meet their own community people, how is their relation with local people in new place, whether there are social functions and festivals organized to facilitate interaction among themselves and similar issues are discussed here.

About 53% of the DPs have moved within 20km from their old habitation whereas the rest 47% have much farther ranging up to 100 km (5%). The mean distance moved by the DPs is found to be 35 km. The distance is 47km for UKP and 22 km for UIP.

<b>How far is your current habitation from the old one (in km)</b>	<b>After displacement</b>	
Upto 20	212	53.00%
21-40	26	6.50%
41-60	3	0.80%
61-80	140	35.00%
81-100	19	4.80%
Total	400	

DPs made an effort to move in groups with their family members and kinship groups. However, all could not do it and many were separated from their close friends and relatives. When asked whether they are able to meet their old friends in the new place, majority reported that they meet rarely, thus implying that social life is affected. However, this is more in UKP where people have moved very far to another block and are unable to meet their old friends.

<b>Are you able to meet your old friends in the new place</b>		
Regularly	78	19.50%
Sometimes	79	19.80%
Rarely	242	60.70%

The DPs were directly asked which all social activities have been affected due to displacement and moving to a new place. The relations which have been affected in a major way, as reported by DPs, include interaction with friends (92%), relations with local leaders (75%), interaction with relatives and kinsmen, interaction with co-workers or members of occupational group, relations with traditional service providers, relations with labour or servants who worked for them, interaction with peers, relations with shop keepers, etc. The relations which have not been much affected as they have been reported by a minority of people include relations with customers/ clients, relations with job or employment providers, relations with money lenders, etc. Thus, we see that DPs are unable to interact with their kins, relatives, friends, coworkers, local leaders, etc., whereas they are able to continue their relationships with customers, service providers, money lenders, etc.

<b>Which type of relationships could not continue in the new place</b>		
Family members/relatives/kinsmen	294	73.50%
Friends	367	91.80%
Co-worker/occupational group	283	70.80%
Caste group	258	64.50%
Local leaders	303	75.80%
Peers	204	51.00%
Customers/clients	156	39.00%
Seniors/advisors	164	41.00%
Traditional service providers	258	64.50%
Labour/servants	269	67.30%
Employment /job providers	61	15.30%
Money lenders	49	12.30%
Shopkeeper/retailers	215	53.80%

The social relations could have been rebuilt or strengthened by some responsible organization if they had organized some community building activities, but no such activity was reported by anyone.

**4.16.1 Membership of groups and organizing cultural activities** was also explored to see how far DPs have been able to rebuild their relations in the new place. When asked whether they were members of any group or organization, about 26% reported that they are member of some group. Mostly SHGs and other community based organizations were reported. Almost all the tribal DPs reported that they organize traditional festivals and functions such as Pusu parab, Chait parab, Diwali, etc.

**4.16.2 Activities affected due to shifting:** To further see the effects of moving from one place to another on the social life of DPs, they were asked what all activities or things have decreased and what all have increased due to shifting from one place to another. A number of activities or things were reported as having negatively affected. Those include availability of hand loans and informal lending, lack of resolution of disputes and conflicts due to absence of a traditional leader or conflict resolution body, observing festivals and

traditional customs, and observing rituals with kinsmen and relatives. Thus, three types of activities are mainly affected, getting loans, observing festivals, and resolution of conflicts.

**4.16.3 Positive effects of shifting to a new place:** There are many activities and things which have increased or have been positively affected due to shifting to a new place. Those include information and advice on several matters including land or employment opportunities, big purchases, marriage partner, educational opportunities, health services, etc. Because most DPs moved from an interior hilly area to a place by the road side, their access to all types information has increased. This may also be due to access to mass media due to getting electric connection at home in the new place.

**4.16.4 Rebuilding of social support in the new place:** Getting support in the new place has increased now due to rebuilding of new social networks in the last 30 years since displacement. In many cases, people have been able to reestablish relationships with kins in the meanwhile, so they are able to get help from friends and kins in times of need such as accompanying to a difficult place, to help during family functions. Some are getting increased support during agricultural activities because of good relations with the neighbours and other farmers. There is exchange of labour and exchange of farm implements with other farmers in time of need.

*Regarding social disarticulation, it is observed that due to moving to a new place, DPs are unable to interact with their kins, relatives, friends, coworkers, local leaders, etc., whereas they are able to continue their relationships with customers, service providers, money lenders, etc. Over 26% of DP family members are participating in some community level organizations in the new place. Most of the DPs in the new place are able to organize cultural festivals. Three types of social activities are mainly affected due to displacement, getting loans, observing festivals, and resolution of conflicts. The positive effects of shifting to a new place include getting information about all important matters. This is also due to enhanced access to mass media. Since shifting occurred 30 years back, DPs have been able to rebuild their social networks and are able to get support in agricultural activities, social functions and festivals and in other activities now.*

#### **4.17 MARGINALIZATION**

If the condition of a person deteriorates and becomes worse compared to earlier status, then he or she feels marginalized or comes to the edge or the margin of the society or community. Given the condition of the DPs with displacement and shifting to a new place, they were asked directly how they are feeling now. Most DPs stated that their land holding has decreased (70%). Only a small minority mentioned reduction in house size, income and employment. However, most of them (70%) felt that their social status has decreased due to a reduction in size of their land. About 65% of them also reported that they have less respect in the society due to this reduction in size of land. Majority of DPs (60) stated that they are feeling marginalized whereas about 40% reported that they are feeling normal.

<b>Marginalization</b>	<b>After displacement</b>
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<b>Whether there was a reduction in land, income, etc.</b>		
Reduction in land size	282	70.5%
Reduction in house size	57	14.3%
Reduction in family income	36	9.0%
Reduction in employment	10	2.5%
<b>Did you feel a decrease in your social status</b>		
Yes	281	70.3%
No	119	29.8%
<b>Did you feel a loss of respect in your group</b>		
Yes	260	65.0%
No	140	35.0%
<b>Are you feeling marginalized now</b>		
Yes	238	59.5%
No	162	40.5%
<b>Total</b>	<b>400</b>	

*Reduction in the size of land is the main reason for loss of social status for majority of DPs. Due to this loss, majority of DPs (60%) are feeling marginalized now whereas about 40% are feeling normal.*

#### **4.18 EFFECTS OF RELOCATION ON PSYCHOLOGICAL STATUS**

While we are comparing the effects of displacement and relocation on different aspects of life and livelihood of the DPs after 30 years, the situation has improved in most areas as the DPs have been able to build economic and social base in the meanwhile. However, the DPs have gone through very bad times and have suffered a lot just after displacement when they were abandoned by the project after giving their due compensation and RA. However, mere possession of money does not give access to a good relocation site and when a big group of people are looking for suitable land for both habitat and agricultural purpose, it is a work full of tension as DPs have to think of their own future and their family. DPs suffered immense mental tension and physical stress trying to make both ends meet when they were shifted out of their dwelling and were forced to take shelter in makeshift house with children and women and without any cooking arrangement or any food to cook. This is more so in the case of UKP as they were not even given any living allowance and due to this they were unable to afford food and other items for their families. The mental stress and tension that DPs went through at that time was immense. However, their condition has improved now as they have settled in the new place and rebuilt their life with livelihood arrangements and social networks. This section describes their current psychological status and also their mental state after relocation.

Almost all the DPs narrated that they felt shocked due to loss of their old place and friends and neighbours. Almost all also felt stressed due to the burden of finding a new place to settle in and to distance is 47km for UKP and 22 km for UIP.

Felt bad, worried and tense due to leaving home and village	400	100.0%
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<b>Types of psychological problem you suffered from after displacement</b>	
Feeling shocked due to loss of land and house and neighbours	99.5%
Feeling depressed	74.3%
Feeling stress in the new area with unknown people	60.0%
Feeling less confident	41.5%
Feeling anxiety due to uncertain future	56.8%
Feeling stressed due to load of finding new land	95.3%
Fear of dealing with new people in the new place	40.0%
Sleeplessness and insomnia	3.8%
Alcoholism and other drug addiction	33.8%
Feeling powerless in dealing with the govt	46.8%
Decrease in self esteem and self image	7.8%

expressed that they felt powerless in dealing with the govt. and also that they feared dealing with the new people in the new place. Many PDs started feeling less confident in their dealing with the people. Many fell prey to alcoholism and drug addiction due to mental tension. A small minority suffered from insomnia and anxiety.

In the stressful condition, DPs were asked how they felt. About 40% reported that they felt broken and demoralized whereas about 60% felt that they felt challenged and charged and tried to improve their situation with zeal and vigour.

<b>After relocation, did you feel demoralized or charged</b>		
We felt broken and demoralized	162	40.5%
We felt charged and challenged	238	59.5%

Most of the DPs (69%) reported that now they are feeling confident to face challenges in the new place. Maximum DPs reported that they had taken others' help during any health hazard in the family. About 15% had taken help of others in case of land mutation case when they had to run to Tahasil office and get the work done. About 8% had taken others' help during marriage ceremony in the house. The person whose help is taken by the DPs was also enquired. A large majority had taken the help of their neighbours, about 9% had taken help of kins and relatives while 6% had taken help of their friends.

<b>Particulars</b>	<b>After displacement</b>	
Feeling confident to face challenges	276	69.0%

Sought someone's help or support for facing challenges	85	21.3%
<b>On which occasion did you seek anyone's help</b>		
All types of household work	17	20.0%
in mutation case	13	15.3%
Marriage ceremony	7	8.2%
Health hazards	48	56.5%
Total	85	
<b>Whose help did you seek</b>		
Friends	5	5.9%
Neighbours	71	83.5%
Kins/relatives	8	9.4%
Local leader	1	1.2%
Total	85	

*Most of the DPs reported that they initially felt shocked, stressed and depressed due to displacement from their old place. However, majority of them felt charged and dealt with the situation with zeal and courage whereas minority felt broken and demoralized. Minority of DPs received help from their neighbours, friends and kins on occasions such as family function, going to govt. office for some work or for some health hazard in the family.*

#### 4.19 REBUILDING EFFORTS AND STRATEGIES OF DPs

The actions carried out by the DPs for rebuilding their life at the new place were discussed and attempt was made to reconstruct the strategy adopted by the DPs. The sequence of the actions reflects which action was a priority and which action was not crucial and therefore the sequence was also enquired and noted.

**4.19.1 First step in rehabilitation:** How the process of resettlement was started by the DPs and which was the first activity carried out was enquired. There was a bipolar response, with most DPs from UIP saying that they bought land first whereas in UKP most DPs said that they first constructed their house or made temporary shed. This is because in UKP most DPs are from the RCs and since they were given land for both making house and for cultivation purposes, they started with making a temporary house on the land allotted to them. In both cases, finalizing a place for living was the main concern of the DPs because only after they settled themselves and their family in one place then only they could finalize other important things such as livelihood, education of children, etc.

<b>How did you start the process for rebuilding your life after displacement</b>	<b>Response in no. &amp; % of DPs</b>	
Purchase of land	198	51.7%
Construction of house	17	4.4%
Cultivation of land	4	1.0%

Establishment of Gram debati	2	0.5%
Change of records in new place	1	0.3%
Create forest land for cultivation	1	0.3%
Temporary shed	157	41.0%
Identification of land purchased by DP through Project	3	0.8%

**4.19.2 Buying land:** At which stage of resettlement DPs bought land was looked into and it is seen that only 17% purchased land before relocation whereas the majority of 82% bought land after relocation. The way in which they identified land for building shows that about 50% took the help of the project staff whereas about 40% identified land with their kins and relatives. About 32% identified the land by themselves whereas 29% took the help of the local leader in identifying land. About 25% reported that the land was identified by the govt. authorities or the project authorities. Thus, the DPs adopted more than one way and looked for the land themselves and also took the help of others in identifying land.

<b>When did you buy land for building your house</b>		
Purchase of land after relocation	328	82.0%
Purchase of land before relocation	68	17.0%
Presently having no land	4	1.0%

<b>How do you identify land for building house</b>		
Self identified and purchase	133	33.3%
Kinsmen and relatives	155	38.8%
Project staff with DPs	204	51.0%
Local leader	116	29.0%
Land owner information	36	9.0%
Identified & given by Govt.	70	17.5%
Identified by Administration & DPs	33	8.3%

**4.19.3 Limitations in buying land:** Why that of much of land was bought and whether the purchase was limited by funds at hand or availability of land was enquired. About 71% could not buy more land due to limitations of funds, whereas 22% reported that land was limited. About 16% did not buy more as the price was very high.

<b>Why you did not buy more land</b>		
Lack of money	286	71.5%

Non-availability of more land	89	22.3%
High land valuation	62	15.5%
Mis-utilization of assistance	50	12.5%

**4.19.4 Fund for house construction:** Regarding fund for house construction, about 79% DPs had fund which they received from the project and about 7% had to arrange funds whereas the rest had some fund and arranged some more fund for house construction. About 77% of DPs used the RA received from the project in house construction whereas 5% resorted to wage earning to supplement the fund. About 18% borrowed money from others for this purpose.

**4.19.5 Problems faced in house construction:** Regarding the problems faced by the DPs in making their house, maximum proportion of DPs mentioned about the difficulty in arrangement of timber as they were used to take timber from the forest but in the new situation they had problems due to restrictions from the forest dept. Some had problems due to non-availability of labour, whereas some had to go far to arrange construction materials. About 30% had fund problems also. About 48% took the help of their neighbours in making the house whereas about 17% took the help of their friends and relatives.

<b>Problems faced in house construction</b>		
Collection of materials, timber from far away	235	58.8%
Restriction of forest department	261	65.3%
Labour problem	73	18.3%
Masson problem	16	4.0%
Lack of money	119	29.8%
Purchase of materials from far away & more expensive	84	21.0%
No problem	37	9.3%

<b>With whose help were you able to make house</b>		
By own effort	295	73.8%
By neighbour	193	48.3%
Relative & friends	67	16.8%
Local people	3	0.8%

**4.19.6 Livelihood arrangement:** For reconstructing their livelihood arrangement, about 96% of the DPs faced problems in finding employment. About 62% of the DPs took 11 to 24

months to get employment in the new place whereas 36% of DPs could find it within 10 months.

**4.19.7 Problems in finding employment:** A variety of problems were faced in finding livelihood. Four types of problems were faced by a majority of DPs. Availability of land was limited so DPs could not take up farming. They also had problems in finding wage earning opportunities. Then they also faced problems in collecting forest products for selling or own consumption. About 55% also reported less availability of livestock which also limited their income from this source. About 15% faced problems because they shifted to a new place once more for resettling finally.

<b>What problems did you face?</b>		
Lack of land for cultivation	255	63.8%
Non-availability of daily work	312	78.0%
Less forest product	309	77.3%
Less livestock	213	53.3%
Due to more family workers	6	1.5%
No problem	8	2.0%
Change of place again	63	15.8%
No record land for cultivation	35	8.8%
Low level of education	12	3.0%

**4.19.8 Whose help taken:** For finding employment they had to establish contact with local labourers and contractors. Those engaged in farming had to establish contacts with land lords for either buying land or to take land on lease for farming. People had to settle with the type of work they were able to find in the new place. About 65% identified wage earning opportunities, whereas about 57% found work as agricultural labour and 28% took to farming in uplands/dongar lands. Few resorted to stone chipping work and selling of firewood in the absence of any other suitable work.

<b>With whose help were you able to find employment</b>		
Local wage labourer	309	77.3%
Contact with land lord	189	47.3%
Contact with contractor	64	16.0%
By the Govt Project	13	3.3%
By neighbour	23	5.8%
By local leader	30	7.5%

**4.19.9 Problems in farming:** About 99% of those having land were able to resume farming in the new location but 82% faced problems in this. Most faced problems due to scarcity of water. Many DPs could not cultivate their favourite crops due to absence of suitable land.

About 60% faced problems due to higher expenses in agriculture. About 20% could not find land for share cultivation. About 11% reported conflicts with local people which made pursuing a livelihood difficult for them.

Most of them took the help of their neighbours for doing cultivation in the new place.

<b>What all problems did you face?</b>		
Scarcity of water	307	76.8%
Unsuitability of land for some crops	311	77.8%
High expenses in agriculture	245	61.3%
Non-availability of land for cultivation	192	48.0%
Less land for share cultivation	82	20.5%
No problem	8	2.0%
Pest attack	44	11.0%
Due to encroaching of land	34	8.5%
Conflict with host people	44	11.0%
Agriculture land is far away from the village	5	1.3%

<b>With whose help were you able to do cultivation in the new place</b>		
By the neighbours	232	58.0%
By own effort	169	42.3%
By the local people	5	1.3%
By the relatives & friends	11	2.8%

**4.19.10 Settling down in the new place:** Only 6% were able to fully settle down in the new place, whereas 40% settled down partially and 50% were resettled marginally.

About 66% could find support in various welfare and development schemes of the govt. in enhancing their standard of living. About 88% of the DPs sought the help of the local administration and they could find help through different schemes. About 43% got help through Indira Awas Yojana and 30% got help through the toilet scheme. About 69% of the DPs did not get any support from any NGO, but some DPs mentioned that they received a variety of support. This includes piped water supply, toilet, and agricultural support.

The strategy adopted by the DPs to regain their livelihood and income was asked to them. About 96% resorted to cultivation and 90% resorted to wage employment. Thus, it seems DPs undertook a mix of strategies and undertook both cultivation and wage earning to earn sufficient income. Land being limited, they took to farming during the monsoon and then in the lean season they took to wage earning and thus tried to enhance their income.

*DPs focused on different activities in the process of reconstructing their life and livelihood. Some stated with arranging land for house construction and others started with arranging land for cultivation. About 17% had bought land for house construction before displacement whereas about 82% arranged land after relocation. A third of the DPs arranged land self whereas others took the help of kins and relatives, project staff and local leaders. The size of land purchased was limited by high price of land, lack of funds with the DPs and lack of suitable land in the area. About 79% of the DPs used the RA funds in buying land for house whereas others arranged funds through loans or buy engaging in wage labour or selling assets. DPs faced problems in house construction due to shortage of funds, shortage of labour and shortage of house building materials in the vicinity.*

*About 96% of the DPs faced problems in finding a livelihood. The problems faced includes shortage of land for farming, shortage of wage employment opportunity, shortage of forest products and shortage of livestock. To surmount these problems the DPs took the help of local contractors, local labourers, local leaders, and local landlords.*

*Those who had land resumed farming. About 82% of them faced problems in starting farming. A variety of problems were faced by the DPs, which includes shortage of water for farming, shortage of suitable land for cultivating favourite crops, shortage of land in the area for leasing in, shortage of funds, and the high expenditure of cultivation.*

*About 66% of the DPs approached the local administration for taking help of different development schemes and programmes such as housing scheme, toilet scheme and other suitable schemes. A minority of DPs received support from local NGOs for programmes such as piped water supply, toilet, solar energy, and agricultural support. DPs undertook a mix of strategies and undertook both cultivation and wage earning to earn sufficient income. Land being limited, they took to farming during the monsoon and then in the lean season they took to wage earning and thus tried to enhance their income.*

#### **4.20 ACCESS OF DPS TO DIFFERENT SCHEMES AND BENEFITS**

It is seen that the DPs have resettled in the new place and have been able to rebuild their life and networks. Their economic condition is better now compared to their previous standard and the benefits they derive from different govt. schemes plays a major part in improving their condition. The access of the DPs to different schemes and benefits was enquired to see what sort of benefits they derive from the schemes and what role these benefits play in improving the current condition of the DPs.

Currently 98% of the DPs have access to PDS/ NFSA under which they get rice and other items at subsidized price, whereas only 2% had access to this before displacement. About 49% have access to the services of an Anganwadi center as compared to just 1% earlier. About 88% have access to NREGS under which they get employment opportunities, whereas earlier only 2% were getting such benefits. About 30% are getting benefits of old age allowance as opposed to none earlier. Similarly, about 19% are getting Widow

allowance whereas earlier 1% were getting such benefit. There are 7 disabled people in the DP sample and they are all getting the Disability allowance as opposed to no one earlier. Now, 22% have access to Labour card, 45% to RSBY Health card, and 40% to BKKY card.

Only 2% currently have access to skill development programmes to get skill development training under the scheme. This is of great concern as this is a major scheme under which the youth can get training and get employed. Of other schemes, 45% of DPs have got a house under a scheme, 42% have received a toilet under SBM, and 14% have got cooking gas under a scheme. Thus it is seen that majority of DPs have got benefits under multiple schemes of the govt. and are receiving many types of benefits which all go towards making their economic condition better and also provides them with much needed work, income, health benefits, nutrition support and also insurance against risks and failures. All these benefits have together managed to improve their living condition after their condition had worsened after displacement. These benefits have played a major role in rebuilding their life and in adding to their survival strategies.

<b>Access to Schemes</b>	<b>% of DPs receiving assistance after displacement</b>
PDS/NFSA	95.8%
Anganwadi	49.0%
NREGA	88.0%
Oldage Allowance	29.8%
Widow allowance	19.0%
Disability Allowance	1.8%
Labour Card	22.3%
RSBY Card	45.0%
BKKY Card	40.5%
Skill Development	1.8%
House	45.3%
Toilet	42.3%
Cooking Gas	14.5%
Kalia Yojana	7.8%
<b>Total</b>	<b>400</b>

*DPs received support from different development and welfare schemes of the central and state govt. in improving their condition. These schemes include support in the area of making their economic condition better and also provide them with much needed food, work, income, health benefits, nutrition support and also insurance against risks and failures. They are getting food and nutrition, work opportunity, house building assistance, health services, child development services, insurance against health problems and crop failure, and other support.*

# CHAPTER V: IMPOVERISHMENT RISK ANALYSIS

## 5.0 BACKGROUND

The previous chapter analyzed and described the effect of displacement on the life and livelihood of the DP in UIP and UKP. Various socio-economic indicators were considered and the pre-displacement status of the DPs on these indicators was compared to their post-displacement status and the changes were noted. The indicators included condition of housing, land holding pattern, income and expenditure, saving and borrowings, production of crops, livestock, work participation of the DPs, health status, education status, clothing, food and nutrition status, access to CPR, social disarticulation, marginalization, effect of psychological status, access to various development and welfare schemes, and the rebuilding strategies and methods adopted by the DPs for rebuilding their livelihood. This chapter applies Cernea's Risk and Reconstruction Framework to the changes in the socio-economic status of the DPs and analyses the 8 types of impoverishments faced by the DPs of UIP and UKP. Then appropriate mitigation measures are described for each of the impoverishments suffered by the DPs.

## 5.1 IMPOVERISHMENT RISK ANALYSIS

**Cernea's Impoverishment risk and reconstruction model:** Michael Cernea, a noted anthropologist and researcher on R&R issues created the impoverishment risk model after going through the process of R&R activities and their impacts on the DPs in many countries. He stressed on the "Population's rights" and on "Social justice and equity". He observed that all such projects leading to displacement of population violated the rights of the population and also hampered social justice and equity. Projects benefited some people and negatively affected some other people who were displaced. For those displaced, it lead to "Social and economic exclusion, exclusion from resources and networks, and impoverishments". Displacement also affected civil rights, human dignity and economic entitlements. There is loss of entitlements and rights. In addition, the way in which rehabilitation process is carried out by the project authorities, there is victimization, decapitalization and impoverishments of those affected.

However, he went beyond just explaining inequity and impoverishments and also created a strategy for reconstruction of livelihood of the DPs and thus to mitigate impoverishments. In his words, "There is no reason to accept spatial rearrangements and their pernicious consequences with resignation as an ineluctable tragedy. Adherence to social justice and equity norms and respect for civil rights and people's entitlements should remain paramount whenever development brings about risks and exacts predictable tolls". He described 8 types of impoverishment risks and cited many examples of R&R projects from around the world which lead to different types of impoverishments. Since displacement leads to destitution, he created a framework to guide recovery in reconstruction. His strategies are guides towards re-establishment of

DPs' livelihoods based on the economics of recovery. His model is known as the Risk and reconstruction oriented framework or the Impoverishment risks and livelihood reconstruction framework. He designed it as an equity compass to guide mitigation of impoverishments.

Eight types of impoverishment risks were enlisted by Cernea. This section examines the information on displacement and resettlement in UKP and UIP and tries to assess the types of impoverishments faced by DPs in these two projects. The next section will suggest the risk mitigation strategies, depending on the types of impoverishments identified in this section. The eight types of impoverishments are described here:

**Landlessness:** Cernea describes land as both natural and man-made capital, considering the effort put in by the DPs in developing the land over the years to make it more productive. In this case, it is to be noted that the sample of DPs selected is not a random sample but a purposive one and focus was on the Rehabilitation colonies and on large clusters where the DPs moved as a group and selected sites where they could buy some land. It is seen that the number of landless DPs has increased marginally from 6 before displacement to 10 after displacement. However, the average land holding has decreased from 4.29 acres to 1.4 acres. Further analysis on the movement of different category of landowners and assessment of their land ownership after displacement shows that while landless and marginal farmers have been able to buy small amounts of land and have been able to improve their land ownership, the small farmers, medium farmers and the large farmers have fared very badly and have been rendered marginal farmers after displacement. 57 out of the 59 large farmers have become marginal farmers. All the 82 medium farmers have become marginal farmers. Out of the 121 small farmers 111 have become marginal farmers. On the other hand, 122 of the 130 marginal farmers have been able to maintain their status and 4 of them have actually moved up to small farmers. All the 8 landless DPs have managed to buy some land and have become marginal farmers. Thus, there is rampant landlessness in the two projects and while small land holders have managed to improve their holdings, the larger land holders have become small holders.

The reason for the above pattern is that in these projects, DPs were compensated for their land at a very low rate, i.e., @Rs 1800 per acre, but they had to buy land @Rs.20000/- per acre. Due to this difference in rates, larger land owners could only buy a small piece of land. All DPs had another source of fund for buying land, the Rehabilitation Assistance amount, which was Rs.14040 in UKP and Rs.21000 to Rs.42000/- in UIP. The landless DPs and the small holders utilized this amount to buy some land. Since this amount was the same for both landless and large holder DPs, all had the same amount and all could buy about 1 acre utilizing this amount. Thus, most DPs are in the marginal farmers category now as they were able to buy only 1 to 2 acres with the fund at their disposal. This happened because land compensation was fixed following some archaic law which did not consider the difference in land rates and was not practical and land pricing was not done considering the replacement rate.

**Joblessness:** Joblessness is manifested in this case in different ways. Wage employment has increased for different category of DPs, because landless wage earners were able to find work as agricultural labour in the new place also among the host community. The large landholders who became marginal farmers had to supplement their income through wage earning work, both on and off the farm, and also by taking land of host farmers on lease. Hitherto farmers employed in primary sector were forced to move to the tertiary sector. Due to absence of irrigation, farmers were able to cultivate one crop only during the monsoons and were forced to sit idle thus increasing non-productive time in the community. There was lots of wage earning opportunities in the dam construction work and many landless and marginal farmers took advantage of this opportunity and earned some amount. However, they moved out when water started accumulating in the reservoir after completion of dam construction and at the same time the work opportunities were finished. So DPs had to look for opportunities elsewhere or had to resort to collecting fuel wood from nearby CPR and sell it in far off places to earn some income. However, over the years, DPs were able to locate work opportunities after rebuilding their social networks, but work opportunities on farm remained limited because of reduction of size of land for most farm families. Thus, many large land holders had to move to wage earning and also sit idle for considerable time in a year.

**Homelessness:** Comparison of house ownership and size of homestead land and also house size shows that the DPs were able to improve the condition of their housing. Area of homestead land has increased from 0.12 to 0.24 acres after displacement. Out of this area, land under house has also increased from 0.08 to 0.2 acres. Further, the average size of the house has increased from 287 sq. ft. to 381 sq. ft. after displacement. The quality of house has also improved with respect to floor, walls and roof also. Over the years, DPs managed to improve the house taking benefit of the govt. schemes from housing schemes, toilet construction scheme and drinking water schemes of the govt.

All the DPs received housing allowance and were able to buy land and construct house with it. The new house was of better quality compared to the old house in their villages which was mostly a kutch house. However, the quality of house is being observed after a long time and it is likely that the DPs have improved their house over this period of 30 years. It may also be noted that many DPs are from rehabilitation colonies where they were given homestead land and they build their house by themselves.

**Marginalization:** There is large scale marginalization in this case, as all the large and medium farmers became marginal farmers as they could buy only small pieces of land. Because of this, many farmers had to resort to wage earning to supplement their income. Because of this, the DPs lost social status also as they were termed as “labour” instead of “farmer”. There was social marginalization also as the DPs lost social status also as DPs and were perceived as homeless people. They also acquired stigma as “budi anchal” (submerged area man) people and were belittled by the host population everywhere. There had been many conflicts between the DPs and the host because of encroachment

of grazing land and CPR by the DPs and due to which they were insulted by the host population. Marginalization is observed among the DPs in many ways.

**Food insecurity:** Comparison of food intake pattern before displacement and at current times shows that the food intake is slightly better and more DPs are having sufficient food and 3 meals a day. However, this is also due to the availability of free and subsidized food materials and the monthly cash allowance to all the vulnerable groups such as the old, widows, disabled people, etc. Food is also being given in mid day meals in schools and to infants and mothers in Anganwadi centres.

However, during qualitative discussions many DPs mentioned that they faced considerable food insecurity just after displacement when they had no income and also no stock of food and they had to sleep empty stomach on many occasions. A young man pointed out that when he was a child after displacement they were eating khuda (broken rice available at cheap rates) when they had no other food and when the stock was finished they were forced to go without food. In order to survive, he was put in an Ashram school so that he could have food in the school. Many other DPs mentioned that they resorted to wage earning and collecting and selling fuel wood to earn some money so that they could have some food.

Many older DPs pointed out that they were very dissatisfied with the type and quality of food and they were getting weak after having this food. Earlier when they were having ragi they were feeling strong and were able to work a lot, but after having rice they are feeling weak now and are feeling tired after a short time. They also blamed the presence of chemicals in the food now-a-days and believed that this food was leading to gastric, joint pain and other problems. It seems that though the food menu has changed due to a change in the crops raised and the availability of specific grains at heavily discounted prices under govt. schemes, the older generation has not been able to adapt or accept this change and are dissatisfied with the current menu.

**Morbidity:** In the two projects no evidence of increase in morbidity with any particular disease was found. Rather, DPs reported decrease in incidence of malaria after relocation. This may be due to the fact that they were living in remote areas in the midst of hills and forests and malaria was endemic there. When they were relocated, they moved to relatively clear areas and this may be the reason for reduction in incidence of malaria as reported by DPs.

However, many DPs reported psychological trauma due to the stress conditions when they faced an uncertain future as they suddenly lost house and livelihood. They experienced sleepless nights and tension over a long period. Many suffered depression and fell sick.

Many DPs suffered sickness due to the combined effect of psychological trauma and very hard work undertaken by them in order to earn a livelihood for fulfilling the needs of the family. DPs reported that they stayed out of house for 3 to 4 days searching for work and

came back home after earning some amount. DPs cited cases of cutting fuel wood and going 60 to 70 km on bicycle to sell it in nearby small towns.

In case of UIP, there were cases of death over the years due to accidents associated with the new Indravati reservoir where there were death due to drowning when boats and ferries capsized. A tunnel disaster in UIP claimed lots of lives of workers when rainwater entered the tunnel while workers were trapped inside it. Road accidents due to trucks which were engaged in dam work running over local people were also reported.

**Loss of access to CPR:** As stated by Cernea, “for the landless and assetless, loss of access to the common property assets that belonged to relocated communities (pastures, forested lands, water bodies, burial grounds, quarries, etc.) results in significant deterioration in income and livelihood levels. When displaced people’s access to resources under common property regimes is not protected, they tend either to encroach on reserved forests or to increase the pressure on the common property resources of the host area’s population. This becomes in itself a new cause of both social conflict and further environmental degradation”.

In case of UIP and UKP, the local tribals were completely dependent on the CPR for most of their needs. After dislocation, they were completely cut off from the CPR and faced a situation where they had either to buy the things that they were earlier getting from CPR or had to go without those things. Being poor, most DPs are now not getting most of the things that they were getting earlier. In most places, except fuel wood and using it as a grazing place for their cattle, people are not getting any product or services from the CPR. Other than lack of access to the CPR in the new place, the CPR has become highly degraded and is being protected for regeneration by the govt. and NGOs and CBOs, and hence DPs are not able to get anything from the CPR. This has put tremendous pressure on them and they are not able to meet many of their needs.

In the project area, tribals have lived with common properties and have been drawing sustenance from these resources traditionally. Earlier when these resources were not over exploited and were rich in resources, the tribal people used to get food materials, fuel, timber, fodder, etc., from these CPR. Recently, however, the scenario has changed everywhere with these CPR being over exploited and being devoid of resources. Protection measures have been initiated in most forests to make it rich with resources again. This has restricted the access of the local people to these areas and they are no longer able to get the materials of daily needs from the CPR. Currently, in most CPR people are able to get fuel wood only and other resources are not available and other resources such as timber are controlled and restricted.

The large majority of DPs mentioned that the CPR available to them include forests, barren land, grazing land, streams and rivers, orchards and uplands or dongars. All these were also available to them in their old village before displacement. While the CPR was earlier being used in a major way by the DPs before displacement for fuel wood, fruits, tuber/ roots, grazing and fodder, timber, berries, leaves for plates, medicinal products, and other NTFP, it is currently being used for fuel wood, grazing and fodder, and berries. About 33% still get kanda/tubers from the forests. The other uses have decreased drastically now after displacement. Land for cultivation is also not available anymore in the CPR. Overall, DPs reported that current collection from the CPR is about 30% of previous collection, considering all items.

The distance to the CPR has also increased. Women now have to travel 2km to collect firewood. They also have to walk about 2 km for grazing and for collecting fruits and tubers. Over 99% said that they have access to burial grounds in the new place. Over 98% also have access to grazing land. Conflict is reported more in UKP, more so in the Rehabilitation Colonies where the DPs had to go far to a totally new block and did not have acquaintance or relatives there. About 42% reported that they have conflicts with the host population with respect to access to CPR. The conflict was reported to be mostly over fuel wood and grazing land. The conflict lasted for about a year.

**Social disarticulation:** According to Cernea, “Forced displacement tears apart the existing social fabric. It disperses and fragments communities, dismantles patterns of social organization and interpersonal ties; kinship groups become scattered as well. Life-sustaining informal networks of reciprocal help, local voluntary associations, and self-organized mutual service are disrupted”.

In this context, since this study deals with tribal DPs, and tribal people are noted to be socially active among themselves, their social networks are mainly limited to their own tribe and friends and family members. Hence, if they are cut off from their own tribe people, their social life is severely affected. It is seen that the DPs moved away an average distance of about 35km from their earlier village. However, mostly they moved along with their village and caste people and with their close relatives and kins. Besides family members and close kins, DPs reported that they are rarely able to meet their friends and other social acquaintances. While the relatives’ network is intact, the livelihood network broke down. In UKP where DPs moved away very far to another block, their social life was completely affected and they had much difficulty in recreating their social networks in the new area.

The relations which have been affected in a major way, as reported by DPs, include interaction with friends and neighbours (92%), relations with local leaders (75%), interaction with relatives and kinsmen, interaction with co-workers or members of occupational group, relations with traditional service providers, relations with labour or servants who worked for them, interaction with peers, relations with shop keepers, etc. The relations which have been not much affected as they have been reported by a minority of people include relations with customers, clients, relations with customers/advisors, relations with job or employment providers, relations with money lenders, etc. Thus, we see that more of business relations or social capital and livelihood capital have been affected and DPs are unable to interact with their old peers, occupational group members, etc. They have also not been able to establish relations with shop keepers, co-workers, etc.

Since the tribals are a close knit community, they tried to move with their close relatives and kins, but their efforts were thwarted by the fact that not enough land was available in one place for all the members of a community to settle down. Eventually, communities were dispersed over a large stretch. Many DPs settled in one place first, and later relocated to a place where their community and relatives were living after managing to identify a piece of land there to settle down. In spite of their efforts to settle as a community, the DPs suffered a lot as their social networks broke down. After 35 years, DPs have been able to create new networks in the new place. This was easy for the new

generation youth as they started afresh, but the old DPs still suffer due to the breaking down of their social networks and have become lonely.

**Educational loss affecting children:** This risk was later added by Mahapatra (1998) who stated that displacement disrupts schooling and children may never return to school in the new place. Further, due to reduced income children may join labour force. In this case, the submerged area was a remote hilly and forest area with not much school infrastructure 30 years back. When they moved out, there was a disruption in the education of children because it took time for the DPs to get their children admitted in new school in the new area. However, children got admitted in school as there was better infrastructure in areas where they were resettled. Even then, there is dropout of children from school. Qualitative information gathered from DPs shows that in many families children were forced to go out to work to supplement the income of the family. Education was not very popular then and it was normal for children of 12 years to work. Even now, 30% of the DP families reported children having dropped out of school. Thus, there was some degree of loss of education for the children in these two projects due to displacement.

## **5.2 RECONSTRUCTION OF COMMUNITIES AND LIVELIHOOD**

The previous section described the Risk and Reconstruction framework of Cernea and the 8 types of impoverishment risks that the resettlers faced in any displacement and resettlement project. Based on the framework the analysis in the previous section identified the impoverishments that the resettlers in UIP and UKP faced. Since the projects have been completed about 3 decades back, the analysis actually discussed the deprivations which were faced by the resettlers after displacement. Some of these deprivations have already been mitigated in the natural course of events in the life of the resettlers due to the coping strategies adopted by the resettlers and also due to the many development schemes and programmes adopted by the governments for the general population (and not specifically for the resettlers). It was also seen that the project did not take any remedial measure for either identifying or counteracting the impoverishments faced by the resettlers and left the resettles to fend for themselves after merely giving them a fixed and arbitrary amount as Rehabilitation Assistance. No attempt was made to examine the adequacy of the assistance in reconstructing the life and livelihood of the resettlers. However, based on the impoverishments and deprivations identified in the previous section, this section will suggest strategies for counteracting and mitigating those impoverishments and for reestablishing the livelihood of the resettlers. As suggested by Cernea, the resources to be deployed for effective implementation of the strategy will also be suggested.

The reconstruction strategies are taken up in natural combination or groups of individual risks.

**Land based reestablishment and reemployment for landlessness and joblessness:** These two issues are taken up together for counteracting landlessness and joblessness. The previous section revealed that the average landholding of the resettlers after displacement was reduced to a third of their previous landholding. Except in the case of some resettlers in the Resettlement colony in UKP, most resettlers have no irrigation facility and are engaged in rainfed farming only. The amount of common or forest land operated by them also reduced a lot. Previously most resettlers operated dongar land

with customary rights but after resettlement most of them were not able to get such land in the new place. Due to reduction in the size of land, most farmers were forced to engage in labour work. Resettlers also tried to enhance their income through cutting and sale of fire wood and stone breaking work. Thus, the resettlers who were taking pride as farmers earlier were reduced to the category of wage earners after displacement. It is also to be noted that wage earning opportunities are temporary and not sustainable. Similarly, the work of cutting and selling of fuel wood is fast becoming difficult as forest patches are becoming more distant and the number of trees is also reducing fast. Considering the situation, the following strategy is suggested:

Recovering land from govt. patches near the resettlement habitation: The core resettlement area in both the projects is currently relatively densely populated as after displacement the resettlers settled down in all available patches of land near their original habitation. In the last thirty years, all available patches of private land have been bought by the resettlers and are under habitation or cultivation. Similarly, all the available patches of govt. land are also under occupation by the resettlers. In this condition, it is difficult to find empty govt. land which is not under operation by any resettler or any host person. Still, mapping of the area should be taken up to identify any such patch of land near any of the resettlement cluster or habitation. This could likely be an upland known as Dongar in the area. Given the traditional practice of cultivating uplands in the area, both plain lands and uplands will be useful for allotting to the resettlers who have acute shortage of land for cultivation.

Recovering land from the benefit zone (command area): In most dam and irrigation projects the submergence area is the affected zone where the people lose their lands and livelihoods but do not get any benefit from the project whereas the command area of the irrigation facilities are the benefit zone where the farmers get only benefits without being affected by displacement or any other problem. Many countries and some states in India have the provision of balancing the loss and the benefits by acquiring land from the benefit zone and allotting it to the displaced population. However, acquiring land from the large farmers in the command area to resettle the displaced population is a complicated affair requiring strong political will and this has never been done in Odisha.

In the current context of UIP and UKP, there is also the problem of geographical and cultural differences between the affected zone which is a hilly and forested area and the benefit zone which is a plain and dry area. The displaced tribals from the affected zone are used to live and earn a livelihood in the hilly and forested area and their religious and cultural practices are also based on hills and forests. They are not used to a life in the plain area and that is also the reason they rejected to settle down in the colonies built for them in the plain area and preferred to settle down on their own in a similar hilly area near their original habitation. However, many resettles have now been forced to resettle in the plain area given the scarcity of land in the hilly area and may agree to resettle in the command area given a chance. However, acquiring land in the command area requires change in policies on the part of the state govt. and also a strong political and administrative will. Such a step seems difficult but can be considered in this case given the lack of alternative measures to find land in the affected area for economic rehabilitation of the resettlers of UIP and UKP.

Building marketable skills: While most resettlers are engaged in farming and their livelihood can be enhanced by providing land based income generation activities such as cultivation, animal husbandry, fishing, etc. However, the young generation is educated upto school and college level. This young generation has the potential to be engaged in skilled and semi-skilled activities as self employment or by seeking employment in suitable enterprises. Resettlers with little education can be provided skill training as electrician, plumber, mason, tile mason, tailoring, driving, automobile and farm vehicles repairing, etc. Those with higher education can be trained in computer operation, mobile phone repairing, and other such skills.

Providing irrigation facilities: All the measures suggested for recovering land may not yield much given the shortage of unused cultivable and dongar land in the area. In this context, providing irrigation is the most powerful measure which will add much value to the land existing with the resettlers and make it possible to enhance the productivity of the land and the crop output by two to three fold. Lift irrigation through deep bore wells to each and every patch of cultivable land of the resettlers has to be considered on a priority basis. Isolated land patches as small as 5 acres should be considered for such facility. Necessary backup support in the shape of electricity supply lines, drilling bore wells, lift pumps, and field channels should be provided by the Agriculture dept. on a priority basis. This is the single measure which will serve to enhance the income of the tribal resettlers and will improve their livelihood to a great extent. Necessary administrative and institutional mechanisms should be established to make this possible. The entire resettlement area in Kalahandi district, Nowrangpur district and Koraput district should be placed under separate Deputy Director of Agriculture for necessary administrative and financial autonomy. Resettlers in other districts are in less number and can be placed under existing Offices of the Agriculture dept. for providing this facility.

Agricultural support: Dedicated and assured irrigation facility will create the potential for raising three crops every year and this will imply cultivation of suitable subsistence crops and cash crops. This has the potential of making the resettlers self sufficient in food crops and also earn cash income through sale of cash crops. To facilitate this, agricultural support of various kinds have to be provided to the resettlers on priority basis. This includes cropping advice, seeds, fertilizers and pesticides, proper agricultural implements and tools, and financial support under KALIA or other schemes of the state govt. Farmers' organizations can also be created for availing other benefits available to farmers from other organizations such as NABARD. After harvesting, procurement support through Mandis should also be established in the area so as to enable tribal farmers to sell crops under MSP and to escape distress sale of agricultural products or procurement of the produce by unscrupulous traders. In order to enable the resettles to avail more income from their produce, suitable value addition enterprises can also be set up by engaging the women SHGs in the area so that the SHGs are able to produce different value added products from the crops grown in the area. The SHGs can avail the support from Mission Shakti, ORMAS, NABARD and other suitable organizations for selling their products at profitable prices.

Farming the waters (reservoir fishery): UIP has a reservoir area of 110 sq. km. and UKP reservoir is spread over an area of 100 sq. km. These two large water bodies has the potential of yielding large amounts of fishes and this capacity of not adequately utilized as of now. "Farming the waters" is suggested as a measure of improving the livelihood of

the resettlers by Michael Cernea himself and there is great potential for taking this up in both UIP and UKP. While some rudimentary fishery activity is under way in both the reservoirs, there is a need to scale this up to a large extent by providing proper institutional mechanism. Separate offices of Fishery dept. should be set up separately for UIP and UKP with suitable administrative and financial authority. Support activities such as boats, nets, fish landing sheds, ice factory for fish preservation and other suitable activities should be initiated in the area. Fish seed ponds should also be set up for generating suitable varieties of fish seed. Fish processing plants will provide the opportunity of value addition to the local tribal resettlers engaged in fishery activities. Adequate transport facility with air-conditioned transport vehicles should also be set up to enable movement of fish to nearby cities such as Vishakhapatnam, Hyderabad and Kolkata.

Animal husbandry: After agricultural activities pick up in the area, allied activities such as animal husbandry should also be taken up on a large scale so as to further help the tribal resettlers to enhance their income. All the tribal resettlers have the traditional practice of keeping and rearing cows, bullocks, buffaloes, goats, sheep, pigs, and poultry birds for helping in agricultural activities and also for direct income. The animals also act as liquid assets for them and they sell these assets during difficult times to raise cash for household or commercial use. Separate offices of animal husbandry dept. and livestock points should be established for suitable units of resettlement areas and all support should be provided to tribal resettlers for rearing suitable animals. Supporting activities such as animal feed shops should also be established to provide necessary support in animal husbandry. This also has the potential for enhancing the income of the tribal resettlers to a large extent. Supportive activities such as establishing milk chilling plant and bottling plant after processing should also be set up for procuring milk and other products from the resettlers. Suitable meat processing plants can also be set up in the area to enable resettlers to add value to their products and realize higher income from their investment.

Eco-Tourism: The resettlement has a large area of hills, forests, streams and rivers. The two large reservoirs also have good potential of creating gardens, boating facilities, resorts, restaurants, etc., for tourists. These facilities should be set up with setting up of a separate Tourist office in the area to support tourism activity. Private operators should be encouraged to invest in this area and to set up hotels, resorts, water sports facilities, and transport and travel facilities. Tourism will generate a lot of revenue for the locals in the tourism season.

**Community Reconstruction and Social Inclusion for Social Disarticulation and Marginalization**: It is seen in the analysis in the previous section that after displacement the resettlers lost contacts with the members of their occupational groups, peers, friends and service providers, though they could retain their networks with their kins and relatives to some extent. Most of them were unable to rebuild the social networks in the new place immediately after displacement. It is also seen that due to loss and reduction of land for cultivation, loss of CPR, and loss of business and service providing opportunities and also due to differences and conflicts with the host population, the resettlers were marginalized in the new place. They felt humiliated and suffered from loss of respect and confidence in the new area and this also affected their efforts towards rebuilding their livelihoods and rebuilding of social networks in the new place. While the

resettlers are still in a marginalized condition in the new place, they have been able to rebuild their social networks and had been able to establish good contacts with service providers and occupational contacts in the last 3 decades. Following measures are suggested to build social capital for the resettlers and for their reinclusion in the community:

Community building and mobilization: While the resettlers have been managing their relations with the members of their own habitation, there is a need for community mobilization efforts to develop more bonding among the resettlers. Such efforts have to be designed in such a way that they make the community members work together and interact with each other in a positive environment. These positive experiences will bring the members of the settlement habitations closer to each other. At the same time, these efforts have to foster equity and inclusion within the group so that the excluded and the vulnerable groups are put on an equal footing with the other members. Strategic activities have to be designed in such a way that participation of the vulnerable and excluded groups is promoted in the community activities and all the members get equal scope for participation in the community affairs.

Efforts for reintegration with host population: Strategic activities have to be designed through community reintegration efforts so that the host and the resettlers get a scope for interacting with each other. Different types of competitions and tournaments can be designed so that the two communities interact in play ground settings or in other such activities that foster joint and combined efforts of the two groups in solving a problem so that the two communities come together and develop good relations with each other. Old and long standing problems between the two groups can be solved with the help of outside agencies or govt. agencies and local administration and local leaders so that there is no issue for conflict between the two groups. Such innovative measures can be designed which will help in solving the problems between the host and the resettlers and will lead to good relations between the two groups.

**Restoration of access to common property resources:** It is seen in the analysis in the previous section that the access of resettles to CPR has been severely curtailed after resettlement and due to this reason they are suffering a lot. CPR has also been a major reason for conflict of the resettlers with the host population. The CPR related services which the resettlers were getting to some extent in the new place include grazing land, burial ground, common land for fuel wood, fodder and berries. Those which were affected include access to common lands and forests for timber, tubers, fruits, minor forest produce, medicinal products, leaves for making leaf plates, etc. There is also a need for cultivation of dongar lands which the resettles do not have access to any more. To restore the access of the resettlers to the affected services they were getting from the CPR, the flowing measurer can be adopted:

Protecting the common lands with degraded forests near the clusters of the resettlers: All types of common lands are of use to the resettlers, but those with some good growth or with degraded forests have the potential to grow up as a forest very soon if they are protected from extensive use by the local people. Such lands need to be identified soon and then protected with participation of the local community and local NGOs/CBOs so that they can grow up as forests in the next 5 years and could be useful to the local resettlers as source of fuel wood, timber, tubers, etc. Unless these patches are protected,

continuous exploitation will lead to further degradation and will render it useless for the local communities.

Creating food forests or dense plantations near the resettlers' clusters: New concepts and techniques of creating rapid forests and food forests have come up with dense growth of many varieties of trees in a short time. These are very useful for the local people who are used to forest resources. Such a model known as Miyawaki model has been successfully tried in different parts of the world. Ecosikh, a group in Punjab has also tried this successfully in Punjab and other places and have reported good results. It is known as the

## Guru Nanak Sacred Forests

With blessings of Guru Nanak Dev Ji, EcoSikh created 33 sacred forests in name of Guru Nanak, all across Punjab and fewer outside Punjab. Starting from Gill Patti Bathinda coming all the way to 33 forests was a completely different journey. EcoSikh is extremely thankful to all the individuals for making it a success story, not for all of us but also for our mother nature.

**About Guru Nanak Sacred Forest Project:** Under this project EcoSikh has been facilitating the micro forests in the urban and rural areas of India and especially Punjab with a focus to conserve flora and fauna of the land, preserve the endangered plant species, improve soil biodiversity, air quality and to check the depleting water table of Punjab.

**About the Methodology:** EcoSikh follows the Miyawaki methodology to create dense forests. Named after a Japanese Botanist, Dr. Akira Miyawaki, this methodology is based on the potential natural vegetation of the area. Dr. Miyawaki has planted around 50 million trees all over the world, and in 2006 he won Blue Planet Prize which is equivalent to the Nobel Prize in the environmental field.

**Salient features of Guru Nanak Sacred Forest:**

- 30 times denser
- 10 times more growth rate
- 100 times more bio-diverse
- 100% organic
- Over 99% survival
- Guaranteed growth of at least 1 meter per year
- Cost-effective
- Maintenance-free, wild and native forest after 3 year

Guru Nanak Sacred Forests. **Miyawaki** is a technique pioneered by Japanese botanist Akira **Miyawaki**, that helps build dense, native forests. The approach is supposed to ensure that plant growth is 10 times faster and the resulting plantation is 30 times denser than usual. Such a technique should be tried in the resettlement area and can result in good forests with water conservation also. This will be very useful for the local resettlers and will fulfill their needs for CPR. Empty patches of land or patches with degraded forests or scanty growth could be mapped and then these patches can be taken up for afforestation. These could be handed over to the nearby habitation of

resettlers for maintenance and care.

*Food insecurity to Adequate nutrition and Increased morbidity to Better health care: Analysis of food security situation after displacement shows that in general, resettlers are in a better situation and more of them are having sufficient food and three meals a day compared to previous situation. However, older generation are dissatisfied with the change in the type of food from ragi to rice. They are also dissatisfied with the current food materials as these have chemicals whereas food grown by them earlier was organic and chemical free. They claimed that the current food is making them weak and they are also suffering from health problems such as gastric, joint pain, etc. While the food situation is good currently, just after displacement they had suffered a lot due to severe food shortage and many suffered severe health problems and perished due to food insufficiency and also due to excess labour and mental tension over earning money to buy food for the family. Regarding health situation, resettlers did not report any increase in any specific morbidity due to moving to a*

new place. However, sickness and psychological trauma were reported due to excess labour put in to earn an income for the family. This also lead to anxiety, tension and depression. Besides, creation of the reservoir resulted in cases of drowning. Lives were also lost in the tunnel being created for the power units. Besides, many lives were lost in road accidents during the construction of the dams. Thus, it is seen that there was food insecurity and this also lead to specific morbidities and mortality among the resettlers. Change in the type of food is reportedly causing problems currently also. Keeping these in view, following measures are suggested:

More health facilities: There are resettlement clusters and habitations which do not have access to health centres in their vicinity and have to walk a long way to go for simple treatment or diagnosis. There is a need to map the entire resettlement area and then establish health centres to fill the gap. There is also a need to post doctors in the health centres and ensure that those doctors come regularly.

Promotion of ragi: Many older resettlers reported that they are feeling weak and sick as they are not getting to eat enough ragi which was their main diet earlier. Men who are engaged in cultivation also pointed out that they are not able to do hard labour and are feeling tired soon as they are having rice now and earlier when they were having ragi they were able to much more hard work. Considering the demand for ragi, there is a need to promote the cultivation and use of ragi in the area. The Millets Mission is doing this currently, and there is a need to focus its work in the resettlement area. Initiatives are also being taken to include ragi in the Public Distribution System and this should be speeded up.

Promotion of organic farming: Many older resettlers are complaining of suffering from gastric problems and joint pain problems due to consumption of food which have been grown using chemical fertilizers. Considering this, there is a need to promote organic farming in the area on a priority basis. Training of farmers should be taken up and other support may also be provided on a priority basis.

Interventions for land restoration and reemployment will also respond to food insecurity: Health and nutrition status of the people are affected by their income, the type of work they do and also the types of crops produced by them. The section which deals with measures to enhance reemployment and to restore more suitable land to the people will also address the issues discussed in this section and will also help in promoting health and nutrition status of the resettlers.

Educational loss and promotion of education among the resettlers: Analysis of status of education before and after displacement showed that there was temporary disruption of education after displacement, but as there is better educational facility in the resettlement area and as the value of education has increased over time, the educational status of the resettlers is better now. Dropout has decreased compared to earlier status, but it still remains high. Earlier the trend was that children used to join the labour force at the age of 11 or 12, though some of them continued to attend school simultaneously. Though child labour has decreased a lot, but children and youth still engage in labour during vacations and when there is need for cash, even while continuing education. However, specific problems were identified during the study and following measures are suggested to respond to the problems:

More colleges: It was seen that many students are unable to continue higher education as there is shortage of good college in the area. More govt. college needs to be opened in the area.

Awareness on stipends and concessions: High amount of admission fees, monthly tuition fees, and examination fees was reported by the tribal parents and students, and many are unable to afford such fees. Considering the provision of subsidizing of all types of fees for the tribal students by the govt. and the provision of stipends and concessions and also the provision of hostels for them, it is necessary to examine why such facilities and provisions are not available to the tribal students in the area. Accordingly, the facilities of stipends and concessions need to be made available to the tribal students and the students and their parents need to be made aware about the facilities, so that they can make appropriate decisions regarding continuing higher education.

Awareness of govt. facilities for the tribals: All the facilities of the govt. regarding education of the tribal students need to be advertized widely so that the poor tribal students can avail the facilities.

Career counselling facility: There is a need for career counseling for the tribal students in the resettlement area so that the children can learn about all the educational facilities and career streams available to them and can make appropriate career decisions.

## CHAPTER VI: CONCLUSIONS AND RECOMMENDATIONS

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### 6.0 BACKGROUND

The previous chapters have attempted to analyze different aspects of the socio-economic life of the DPs of UIP and UKP on several parameters and have compared their socio-economic status before and after displacement. The last chapter also analyzed the different types of impoverishments suffered by the DPs and also suggested measures for mitigation of those impoverishments. This final chapter draws a number of conclusions related to the study objectives and also makes recommendations for improving the condition of the tribal DPs of UIP and UKP and suggests measures and strategies for safeguarding the rights and interests of the tribal DPs in future projects involving displacement of tribals.

### 6.1 CONCLUSIONS

The focus of the study is on describing the impact of displacement on the DPs of the UIP and UKP projects on several indicators and to compare the socio-economic condition of the DPs before and after displacement. The findings presented in the previous two chapters lead to the following conclusions:

- Comparison of the socio-economic condition of the DPs before and after displacement presents a mixed picture. The quality of life of the DPs currently is better than their life before displacement, but this is due to the help received from the welfare programmes of the govt. and not due to any sustainable source of income.
- Land holding of the DPs has reduced a lot after displacement. There is virtually no access to the CPR from which they were earlier getting a lot of income. Income of the DPs is more or less same as their income before displacement, but a large part of the current income is derived from unsustainable sources such as labour, stone chipping works, and variety of support received from the welfare programmes of the govt.
- Land is the main resource in the tribal economy and the size of land has decreased a lot. The size of irrigated land has also diminished. Income from agriculture has reduced a lot.
- The DPs were earlier getting food, fodder, fuel, timber, and a variety of NTFPs from the CPR, but now they are getting fuel wood only.
- DPs have found alternative sources of income such as wage labour, both on and off the farm, and popular and convenient work such as stone breaking, and have been able to increase their income through these unsustainable livelihood avenues.
- Livestock is still very popular but is being carried out on a smaller scale compared to the previous situation and does not yield much income. Contribution of forest resources has plummeted and except for fuel wood (and that too of inferior category) the CPR base does not yield anything substantial. The youth are migrating out of the state to greener pastures and are earning and remitting home higher amounts through semi-skilled and unskilled work as mason, painter, garage mechanic, tailor, etc.
- Most farmers have bought plain lands and are growing paddy in kharif. Those who have access to uplands are responding to the market demand for cash crops such as maize which is fast replacing ragi, alsu, suan, etc. The tribal food menu is fast mainstreaming to rice and curry, replacing the previously popular “mandia pej”.

- The current status of food and nutrition and clothing is better than their pre-displacement status.
- Dignity of labour shows strong roots and even school and college students, both boys and girls, take time out to engage in labour work to respond to family economic situation or to fund their own education and other expenses.
- Small business is almost invisible, and even women SHGs are not very active and do not contribute visibly to family income.
- The DPs are getting a variety of livelihood support from the development and welfare schemes of the govt. which have come up over the years and these have together contributed to their land holding status (through FRA), income (through schemes such as NREGA, old age allowance, widow allowance, disability allowance) and have also served to reduce expenses in housing ( IAY, SBM), health expenses and insurance (JSY/ Mamata, labour cards/ health insurance/ BKKY/ RSBY), and food and nutrition status of the common people as well as the children, adolescents and pregnant and lactating women (NFSA, ICDS, MDM). Enhancement of income and saving on expenses through these schemes have contributed in a major way to the current socio-economic status of the DPs. Had it not been for the development and the welfare schemes of the govt., the condition of the DPs would be very bad today.
- The emergence of abundant wage earning opportunities with the growing economic development activities such as construction of buildings, road construction, industries, etc., are contributing to the income of DPs through labour work.
- Comparison of the past and current socio-economic status is not enough to show the impact of the displacement on the DPs, because the effect is confounded by certain other events happening simultaneously, such as enhanced demand for many labour based goods and services due to the general socio-economic development in the country and the state, and the initiation of many development and welfare schemes by the govt.
- If the DPs are in a good state now, it is not due to the approach and strategy of the project authorities towards the DPs, but in spite of it. The rehabilitation and resettlement policies and the services delivered by the authorities were extremely inadequate for restoring the income of the DPs and for rebuilding the life of the DPs. As a result, the DPs suffered a lot just after displacement. But the DPs made their own effort to rebuild their lives and adapted to the situation and it took them more than two decades to get over the loss due to displacement.
- Much of the sufferings of the DPs were due to moving to a new location with a dissimilar geographical and social and economic scenario. They were living the life of a subsistence farmer with a lot of dependence on the common resources for earning their livelihood and for running their family. They were in a barter economy and were self sufficient in their needs for external items which were limited to salt, kerosene oil, soap and clothing. They were exchanging also for salt. Need for cash was very limited and they were self sufficient in their fooding which was derived from their farm and the CPR. After displacement, they lost the CPR and cultivation land and were forced to buy food items from the market by paying cash. They were forced to earn cash through labour work or by selling fire wood. They also sold off their savings and their livestock during that period in order to run their family and to meet day to day expenses.
- While the study attempts to compare socio-economic status of the DPs before and after displacement, in the final tally the current status of the DPs comes out as marginally better compared to their pre-displacement status. However, their status has improved recently since the last decade only, and their status was very bad in the first decade after displacement,

as has been gathered through discussions with the DPs. Just after displacement, the DPs were in a very bad state with no house, no land to cultivate, no forest resources in the new place, and no source of income to bring up their family. They toiled very hard to make ends meet and went through tremendous mental tension and physical labour. This took its toll on the DPs and some of them perished under physical and psychological stress. This also highlights the effectiveness of the rehabilitation and resettlement efforts of the project authorities. The DPs were compensated for the loss of assets and were also given RA for rebuilding their life and livelihood in the new place after being displaced from the project affected area. The rules and regulations at that time did not take into account the value of the funds given to them in comparison to the market value of new land, house and other assets that the DPs were forced to invest in. That the compensation and the RA amounts were arbitrarily decided without taking into account the replacement value of the natural and physical capital required by the DPs, put the DPs in a great loss and they were made to suffer without any fault of theirs.

- The comparison of pre-displacement and post-displacement situation after 30 years hides the real effect of displacement and the trying times through which the DPs went through. It reflects the final situation after DPs have gone through sufferings due to a very low socio-economic status and have later been able to rebuild their lives and restore their status with help from many development schemes and programmes which were not planned by the project authorities. The negative effects of displacement are hidden under the positive effects of the govt. development and welfare schemes and the positive efforts made by the DPs.

#### **CONCLUSIONS FROM IMPOVERISHMENT RISK ANALYSIS**

Based on the results of the socio-economic study, Impoverishment Risk Analysis was done and where impoverishments were detected, mitigation measures were suggested for reconstruction of livelihood. The following are the results:

#### **Impoverishments detected**

- The condition of housing is better compared to the previous condition and there is no homelessness among the tribal DPs
- There is extensive landlessness in terms of reduction in the size of land holding and operational land holding also. The contribution of agriculture to family income has reduced.
- There is extensive joblessness also, as due to lack of opportunities for cultivation, DPs are engaging in labour work, sale of fire wood and stone chipping work. However, these employment opportunities are neither stable nor sustainable and are not sustainable sources of income.
- There is virtually no access to CPR in the resettlement habitations and DPs are not getting anything from the CPR besides fire wood and grazing opportunities. Conflicts have occurred with host population over their access to CPR in multiple resettlement habitations.
- Due to landless and loss of access to CPR, the DPs have been marginalized to a large extent. Change of their identity from farmer to labourer has affected their self esteem and confidence and lead to trauma. The DPs feel marginalized due to this.
- As the DPs had to relocate and did not get suitable site for settling down with kins and relatives, there was extensive social disarticulation just after displacement. However, a over 30 years have passed meanwhile, the DPs have been able to reestablish contacts with

their kins and relatives and have also formed new groups in the place of resettlement and there is no feeling of social disarticulation anymore.

- Health status of the DPs does not show any morbidities due to displacement and settling in a new place. The health services are better in the new place of resettlement but needs to be strengthened further. Nutrition status is better after displacement but there is not much diversity in the diet of the tribal DPs compared to previous dietary habits. This is linked to reduction in cultivation and consumption of a variety of millets and pulses which was prevalent before displacement but is not possible now.
- The level of education has improved after displacement and DPs are giving importance to education. However, drop out rate is still high and needs to be addressed.

**Based on this analysis, mitigation measures are suggested in the recommendation section**

## **6.2 RECOMMENDATIONS**

In the light of the conclusions drawn in the previous section about the negative effects of displacement on the DPs of UIP and UKP due to the faulty policies adopted and the woefully inadequate compensation and rehabilitation assistance support provided to them, and also the positive and focused efforts made by the DPs in rebuilding their social and economic life and livelihood taking help from the welfare and development programmes of the govt., which resulted in improving their socio-economic status after 2 to 3 decades, the following recommendations are made. Part of the recommendations are aimed at preventing adverse impacts of displacement on the condition of tribal DPs in general in projects involving displacement of tribals, and other recommendations are aimed at specifically strengthening the condition of the tribal DPs of UIP and UKP.

### **6.2.1 RECOMMENDATIONS FOR ALL PROJECTS INVOLVING DISPLACEMENT OF TRIBALS**

- Clear and unambiguous information regarding the probable loss and the rights and entitlements of the tribal affected population needs to be communicated widely by appropriate authority through written documents and other suitable media. Lack of this information will create a scope for misinformation and exploitation of the tribal DPs by touts and middlemen and other vested interests. Public hearing should be done in an appropriate way for the tribal DPs.
- Before notifying for land acquisition among the tribal DPs, all holdings with customary rights on unobjectionable land needs to be settled with the tribal land holders so that they are able to get due compensation for their loss.
- Land based resettlement and rehabilitation has to be made mandatory for the tribal DPs in all projects. DPs need to be resettled in agriculture, allied activities, animal husbandry and fishery activities with all support arrangements.
- Mere provision of compensation and rehabilitation assistance is not rehabilitation. The rehabilitation and resettlement action plan has to incorporate measures for complete restoration of income of the tribal DPs and till such restoration is done the rehabilitation process cannot be considered complete. A proper end-line evaluation has to be conducted to generate proof that income restoration has been done.
- A social development officer has to be involved in implementation of rehabilitation activities so as to promote inclusive approach and to ensure social justice and equity.

- While resettling tribal DPs, their cultural habits and practices need to be recognized and arrangements need to be made to resettle them in groups with their own kins and relatives.
- A proper MIS system has to be set up from the beginning of the project. Besides input and process indicators, the MIS should also collect data on outcome and impact indicators pertaining to the economic status of the DPs.
- M&E activities has to be an integral part of all projects involving displacement of tribals and should collect data periodically till the completion of all rehabilitation and resettlement activities.

### **6.2.2 RECOMMENDATIONS FOR TRIBAL DPs OF UIP AND UKP**

- A special retrofit project has to be formulated for providing additional assistance and support to the tribal DPs in UIP and UKP as there are indications that they have suffered extensive impoverishments due to displacement.
- A complete data base regarding the tribal DPs has to be created through a complete survey and tracer study. The survey has to collect data on their current economic status.
- Proper institutional arrangements has to be made for the proposed retrofit project and a senior enough officer has to be placed in-charge of the project with appropriate administrative and financial authority.
- NGOs should be involved for all social development and community mobilization activities for the tribal DPs. NGOs should form an interface between the project authorities and the PDs. The NGOs have to ensure that the rights of the tribal DPs are upheld in the rehabilitation process.

**Based on the Impoverishment Analysis conducted for the tribal DPs in this study, the mitigation measures suggested in the previous section for addressing the impoverishments are given here again as suggestions for this retrofit project.**

- Detecting any suitable govt. land in the vicinity of the resettlement habitations and recovering it and allotting it to the DPs for use. Surplus land of large farmers in the command area of these two projects can also be detected and allotted to the DPs for farming.
- Extensive irrigation support to all the DPs everywhere and promoting integrated farming for climate proofing
- Implementing intensive watershed management measures such as gully and contour bunding, check dams, farm ponds, etc.
- Providing agricultural support to all the DPs in terms of information, seeds, fertilizers and pesticides, technical assistance, financial assistance, organizing them into Farmer Producer Organizations, marketing support, etc. They should be linked to the Millet Mission, ATMA, KVK, etc.
- Promoting animal husbandry among the DPs and providing all support for their livestock.
- Promoting fishery in the two reservoirs in a big way and providing all support and assistance to the DPs to engage in fishery activities.
- Promoting eco-tourism in the area which will generate employment and business opportunities for the tribal DPs.
- Providing extensive skill training to the tribal DPs in skills which have market demand and supporting them in suitable placements or in related self-employment ventures.

- Protecting the barren land and degraded forest patches for regeneration of trees
- Creating food forests with dense plantations in small patches following the Miyawaki model.
- Carrying out community building and community mobilization activities in the resettlement clusters for rebuilding networks of DPs.
- Carrying out suitable activities for building trust among the DPs and the host populations and creating a forum for conflict resolution.
- Creating more health facilities with adequate infrastructure and manpower for responding to the health needs of the DPs in isolated habitations.
- Promoting cultivation of ragi
- Promoting organic farming among the DPs
- Awareness needs to be created about the multiple opportunities available for education of tribal children and career counselling needs to be conducted for educated youth also. More colleges are required in the govt. sector for providing affordable educational opportunities to the DPs. Awareness needs to be created on the stipends and concessions and other facilities available to the tribal students interested in higher education.