



MAPPING THE PRICE OF DEVELOPMENT INDUCED DISPLACEMENT: A STUDY ON DISPLACED OF SARISKA TIGER RESERVE IN RAJASTHAN, INDIA

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Abstract: *Development and Displacement is one of the major concern for social scientists, environmentalists and human right activist for the last three decades as it is considered as one of the major source in making vulnerable more vulnerable and a leading factor for marginalization. The spectrums of issues faced by the victims of displacement have been serious concerns for debates and worry. Every year a voluminous number of people have been displaced or forcibly being shifted from their domicile to another place without ensuring the basic aspects of resettlement and rehabilitation. Human right violations are very common in such cases and there are ample empirical evidences on the impoverishment and marginalization of the victims of displacement. Present paper is an attempt to enquire the positive and negative impacts of displacement in Alwar District of Rajasthan in India in the name of Sariska Tiger Reserve Project. Impoverishment model of Michael Cernea along with the social development indicators were assessed. A detailed comparison of pre and post displacement situation has done to examine the extent of impacts on the core areas of social development indicators. Thirty four households were surveyed along with eight case studies. The results indicate a mixture of positive and negative impacts of displacement and the negative factors are prominent as in a number of dimensions the community has impoverished. It is vivid from the present study that poor attempts have made to assess the probable impacts of displacement and people's dependency on the place and resources they were living. Further the study is a clear indicative of the pitiable rehabilitation, resettlement process and policies of India.*

Keywords: *Development, Displacement, Rajasthan, Marginalization, Vulnerability*

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Introduction

India, since independence has witnessed large scale displacement of people in the name of developmental projects, construction of dams, roads, power, mining, giant industries, urban centers, and protecting animals and conservation of bio-diversity. Both development projects and biodiversity conservation projects have impacted the lives of millions of the people across the length and breadth of the country. People in the disguise of development have been involuntarily evicted from their original inhabitants due to large scale land acquisition. There has been a major debate on the development induced displacement particularly in last two decades. Many view 'development induced displacement' is inevitable and inescapable (MuzaffarAsadi, 2001). Most of the developmental projects are being implemented or imposed upon without the consideration of the voice of local people. Furthermore, the developmental projects are introduced without the consideration of cultural and social aspects of the people who attached with the particular domicile. One of the main lacunae of development projects is the poor or no rehabilitation policy. Displacement always leaves people with cries and woes and there is no matter whatever the reason for displacement. In India researchers found that the country's development programmes have caused an aggregate displacement of more than 20 million people during roughly four decades, but 75% of those people have not been rehabilitated (Fernandes, 1991) and their livelihood have not been restored (Mahapatra, 1999).

The increased sensitivity and empirical evidences on environmental aspects and biodiversity in the post modern era created a pressure government to protect such places of importance. Hundreds of national parks and reserves have established and declared as protected areas across the country to sustain the biodiversity. Historically, village displacement has been one of the priorities in management of Protected Areas in India. The aim of village displacement from wildlife sanctuaries and national parks has been to create strictly protected spaces for biodiversity conservation where minimal human use is allowed (Shahabuddin, 2005). There is no doubt that in some cases keeping human settlement away is necessary for the sustainability of both biodiversity and human being. But a large number of unwanted forced displacements has undertaken in many places in the name of protecting biodiversity. Most of such displacement has taken place in the absence of the information on the forest dependency, socio-cultural dimensions and need based rehabilitation packages of the habitants. Such displacement makes people much impoverished, vulnerable and marginalized. The vulnerability and impoverishment possibly will reflect in all dimensions of human life which include livelihood, income, accessibility services, utilization of common resources, quality of life, and traditional practices, social and cultural disarticulation.

Many dimensions that lost due to displacement are valuable and irreversible with any kind of rehabilitation and resettlement policies. Displacement forces them to start their life afresh in new socio-cultural resettlement areas, which is costly and laborious to the people who lost everything (Paranjpye, 1998). Displacement has farsighted impact upon the people in all dimensions of life. Development induced displacement is not just about the loss of households or land, its having varied dimensions. As the policy

makers often pay less attention to the community profile and related needs of the community life of the population, the uprooting and planting of the life again in new place often ends up with unforeseen losses (Ajeesh & Azeez, 2014). Forced displacement can cause impoverishment among victims by bringing about landlessness, joblessness, homelessness, marginalization, food insecurity, loss of access to common property resources, increased morbidity and mortality, and community disarticulation (Stanely. 2004). The changes in the structure and pattern of livelihood, occupation and access to resources directly linked to impoverishment, vulnerability and marginalization.

Background of the Study

The forests of Sariska are an assemblage of ecological diversity, exemplified with varying composition. Sariska is nestled in the oldest mountain ranges of Aravalli, a repository of serene dense forests, wide valleys and sprawling plateaus. Sariska is natural grandeur housing over 401 plant species, 2011 bird species (Forest Survey of India, 2003). The Sariska was known as a hunting reserve during the British Raj and shooting was allowed till 1955 and in the same year it was declared as a Wilde Life Reserve by Government of Rajasthan. In the year 1978, Government of India included Sariska in the list of the Tiger Reserves and subsequently in 1982 it was declared a National Park by notifying an area of 400.14 sq. km. During the span of time authorities envisaged the expansion of Tiger Reserve to the surrounding areas which is moderately populated. A large area of land has been marked as the 'core' area and that necessitated the forest department to initiate the evacuation of people from the vicinity of the Reserve. The expansion plan was successful as the Park has expanded to 881 sq. km. in 2015 from 400.14 sq. km. in 1982. Hundreds of families have been evacuated from the Sariska forest during the last three decades and even from villages outside the reserve also displaced. Sariska has a long history of village relocations and Devri and Umri are such villages shifted to a new place recently during 2009-12.

More than 350 people from 82 families of Umri, a village which included in the core area of Sariska tiger reserve, were moved to a new location in the year 2009-10. A population of around 250 Gujjars consisting 84 families and twice that number of cattle from Devri village have moved to Mojpur Roondh, another village in Alwar District of Rajasthan. The entire villages of Urmi and Devri have moved voluntarily by accepting the compensation package offered by the Forest Department. Most of the Urmi villagers are belongs to Meena Tribe and Devri belongs to Gujjars and large majority of them are mainly engaged in livestock as their livelihood along with very limited agriculture. The offered compensation package includes the land, housing, money, better access to education, health care and other amenities. There are two types of package government offered, the first one consists of six bigha land and 2.5 lakh rupees to construct house. The second package consists of only ten lakh rupees. Very less number of people have opted the second package. This study investigates the positive and negative impacts of displacement on the villagers in the context of social development indicators.

Methodos and materials

Sample of the present study constitutes 34 households in Mojpur Roondh village of Alwar district of Rajasthan where the people of Sariska Tiger Reserve Project have rehabilitated. Samples were selected through the principle of systematic sampling method. Data were collected only from those household where a person more than 30 years of age is available, because many people settled here before 3-4 years and the reliability of data is susceptible if a person do not able to express the previous situations. A detailed house hold survey was conducted among the systematically selected families. Questions were asked on the situations before the displacement and changes occurred after being shifted to the present domicile. Detailed information on different indicators of development has been collected from the respondents. Apart from the detailed interview, eight in-depth case studies were conducted to acquire the maximum information on the changing life style and the impacts of displacement.

Results

The result of the study illustrates the pre and post displacement situations and the extent of changes in assets and wellbeing. The study used social development indicators along with the Micheal Cernia's impoverishment model. The Impoverishment Risk and Reconstruction (IRR) model of Michael Cernea and social developmental indicators are taken as the framework for analyzing the results of the study.

Socio-Demographic Profile

Data were collected from both villagers displaced from Urmi and Devri. The composition of the respondents is 13 from those who displaced from Umri, who belongs to Meena Community which comes under Scheduled Tribes (ST) category and 21 respondents from Devri, they belongs to Gujjar community which falls under Other Backward Class (OBC) category (Table No. 1). The mean age of the respondents is 49.2, and majority of the respondents belongs to an age group of 40 and above. An equal portion of families are (47:53%) living in joint and nuclear families respectively. The mean number of family members in families is five, which vary in nuclear families. The study constitutes only male respondents as it is difficult to conduct a long interview with women due to the rigid tradition. The educational status of the respondents and their family members are very poor. More than 50 percent of them are illiterate and 21 percent are having primary education. Very few people from both the communities have completed their upper primary and secondary education.

Table no. 01

1	Caste	Frequency	Percent	2	Type of Family	Frequency	Percent
	Meena (ST)	13	38.2		Joint	16	47.1
	Gujjar (OBC)	21	61.8		Nuclear	18	52.9

Total No: 34

Amenities

Considerable changes have been occurred in the amenities which are related to the day to day life of the people. Accessibility, availability and utilization of resources are witnessed for significant changes. Table No: 02 shows the impacts of displacement on different aspects of life. It is inferred from the table that availability and utilization of common properties were very common before displacement as people depended on well and ponds for the water resources. In contradiction to this more than 60 percent of people depended to government bore wells after displacement. It indicates the non-existence of common water resources in the community. One third of the people started owning a personal bore well as they felt it difficult to fetch water from the government bore well. As a reflection of this around 90 percent of the respondents opined that the accessibility to water became very poor. Electricity is one of the positive aspects that the displaced had after being displaced from the original residence. Even a single household didn't electrify their house before displacement and all of them now have the privilege of having electricity.

Around sixty percent of people haven't had agricultural land before being displaced and more than 95 percent availed agricultural land after the displacement. One of the impoverishment that happened after displacement is the usage of toilet. One third of the respondents had a functional toilet before displacement and as of now none of them have a toilet facility and defecating in the open. The compensation package of the government is well reflected in the housing style of the people. All of them have a Pucca (concrete) house, only fifty percent had it before displacement. All the respondents had bank account, ration card and voter id before displacement itself. More than 80 percent of the people were using wood as the source for cooking as their settlement was near to forest. Displacement inculcated the use of gas as medium for cooking. All the respondents opined that displacement badly affected on the availability of the wood for cooking.

Table no. 02: Changes in Amenities

Before Displacement				After Displacement		
1	Source of Water	Frequency	Percent	Source of Water	Frequency	Percent
	Well	16	47.1	Pond	1	2.9
	Personal bore well	2	5.9	Personal bore well	11	32.4
	Pond / Well	16	47.1	Government bore well	22	64.7
2	Electricity			Electricity		
	Yes	00	00	Yes	34	100.0
	No	34	100	No	0	00
3	Agricultural Land			Agricultural Land		
	Yes	15	44.1	Yes	32	94.1

Before Displacement			After Displacement		
No	19	55.9	No	2	5.9
4 Toilet			Toilet		
Open Defecation	23	67.6	Open Defecation	34	100
Toilet	11	32.4	Toilet	00	00
5 Housing Style			Housing Style		
Kaccha	17	50.0	Kaccha	00	00
Pucca	17	50.0	Pucca	34	100.0
6 Cooking			Cooking		
Wood	28	82.3	Wood	16	47.1
Wood + Gas	06	17.6	Wood + Gas	18	52.9

Total No: 34

Displacement has devastated and rejuvenated the access to certain public institutions. All the public institutions mentioned in the Table No: 03 have a direct linkage with the different developmental aspects of the community. The table indicates that certain dimensions of accessibility have enhanced and simultaneously a few of them has debase. Both the villagers had an Anganwadi/ICDS centre within one kilo meter distance before displacement and now it is five kilometer away from their location. This created the non-utilization of ICDS services and it may have farsighted health impacts. The distance of other public institutions became lesser which includes hospitals; it has reduced from 20 & 25 to 5 kilometers and post office from 30 & 15 to 5 kilometer. It is a positive indicator that people have enhanced their accessibility and subsequently the utilization too. As a reflection of this more than 90 percent of the respondents opined that the health facilities became good while comparing to the pre-displacement stage.

Table no. 03: Access to Public Institutions – Before & After Displacement

Institution	Before		After
	Umri	Devri	Umri & Devri
School	0	0	0
Anganwadi	0	0	5
Hospital	25	20	5
Post office	30	15	5
Rajeev Gandhi / Atal center	30	15	5
Dairy	0	0	0
PDS	30	15	5
Bank	25	20	9

Distance in Kilo Meters

Changes in Life and Livelihood

Forms and pattern of occupation witnessed significant changes after being displaced to the new location (See Table-03). All the respondents actively were engaged in livestock and dairy works and among this around 60 percent engaged in few agricultural productions too in some seasons along with the livestock. After displacement livestock and dairy work is vanished from the scene and more than 95 percent of people purely depended on agriculture as their livelihood. The shifts in occupation reflected negatively on the income of people. A glaring difference is seen among the people on income level in pre and post displacement situations (See Table- 04). The economy of the community became feeble and it clogged the people to have standard life. The mean annual income of the respondents before displacement was 3.2 lakh and after displacement dwindled to 2.3 lakh. Many people considerably lost their income at significant level and more than 90 percent of the respondents opined that income is one of the major aspect that shown indicative diminishment.

Table no. 04: Occupation

1	Occupation Before Displacement	Frequency	Percent	Occupation After Displacement	Frequency	Percent
	Animal Husbandry	13	38.2	Agriculture	33	97.1
	A.H. + Agriculture	21	61.8	A.H. + Agriculture	1	2.9

Table no. 05: Income

Income	Before Displacement		After Displacement			
	Mean	SD	Mean	SD	t	P
	3.2353	1.11624	2.3882	.81269	10.556	.000

The glaring difference in income level after displacement is the result of aggravated diminution of the livestock. Both the villages, Devri and Umri were livestock based communities and the environment was also most suitable for cattle rearing. The changes in location affected the livestock as the newly located place doesn't have a pasture land and pond (water resources) which are essential for the cattle rearing. Most of the people sold out their livestock and kept very minimal with them. Table No: 06 indicate the obtrusive differences in the livestock in pre and post situations. Buffalo was the very common livestock people had before displacement, the mean number of buffalo respondents had was 29 and it has reduced to 5.5 after displacement. The case of goat and cow is also not different. People only have a mean number of .9 cows and .7 goats; earlier it was 5 and 11.5 respectively. The quantity of difference in pre and post displacement livestock is statistically significant (t-test).

Table no. 06: Status of Livestock

Livestock	Before Displacement		After Displacement			
	Mean	SD	Mean	SD	t	P
Cow	5.0588	4.86759	.9118	1.52490	5.018	.000
Buffalo	29.9118	21.79848	5.5000	2.67706	6.747	.000
Goat	11.5882	28.32936	.7353	1.52373	2.246	.031

All the respondents opined that they haven't faced any discrimination from the people of the new location and it is easy for them to access the common properties and resources as like them. All the respondents opined that life became tougher in the new location. Around eighty percent of the respondents got the same neighbors as they had before displacement and they maintain good relationship with them. But around 80 percent of the people felt drastic changes in their lifestyle and which they consider as the results of the increased exposure to towns, travelling facilities and modernity. Most of the respondents felt that there is no severe changes occurred in the practices of marriage, religious and cultural festivals but people lost their common place of worship.

Discussion

It is evident from the present study that considerable changes occurred in all dimensions of people's life which includes many negative and few positive alterations. This has been the result of the conventional planning approaches that cause many to be displaced and allow only a few to be "rehabilitated" do not adequately protect against risks and loss of entitlements and rights (Micheal Cernea, 2010). The resettlement and rehabilitation policies are again being criticized here as it failed to provide what exactly the people needed. Lack of a need based rehabilitation policy always makes the people become vulnerable and impoverished. Most of the people were unaware about the displacement and rehabilitation package as a large portion among them was illiterate. This enabled the authorities to have a very easy displacement process. Any of the displaced never had been here in the present location to oversee the suitability for habitation and to confirm the facilities/amenities which are necessary to sustain as per the need/peculiar characteristics of the community. This is an indicative how people were unorganized to demand collaboratively for a considerable rehabilitation package. The political under representation and sensitivity of the community made it easy for the government authority to convince the people in the way they actually needed it.

Each and every dimensions of Michael Cernea's IRR model is analyzed in an in-depth manner. Landlessness is not became the problem in this settlement as all the victims were provided with six bigha land otherwise they can choose the other package, it includes financial support of ten lakh. A considerable number of people have even earned more land than they had before displacement. The quality of land is entirely different, the earlier one was suitable for cattle rearing and the later one suits for agriculture only. Sudden loss of employment is not seen in this displacement but an abrupt change has occurred to the pattern of occupation and income. All the residents of both the villages (Urmi and Devri) were purely depended on livestock as their main earning. The change in the place of living affected the livestock as the new location is

not suitable for the cattle rearing, lacks the pasture land and common water resources like ponds and wells. All most all the displaced sold their livestock and compelled to be agriculturist for the best of their livelihood. This has a direct effect on the income of people. The mean income of the respondents was reduced to 2.3 lakh from 3.2 lakh before displacement. The reduction in income is a significant sign of impoverishment. People are coerced to learn new agricultural skills and fought with the land to make it agriculturally suitable. The inherent skill and quality of cattle rearing is diminished from them and affected them on various dimensions of life as the new livelihood opportunities are challenging and less demanding as per their skills. The new occupation, agriculture doesn't yield an exclusive result as it also having a numerous challenges. Most of the people said that the land is not suitable for agriculture and the quality of the water is a significant challenge which diminishes the prospects of agriculture as a source of livelihood.

The quality of housing has improved as hundred percent of the respondents have a Pucca (concrete) house, earlier only fifty percent had it. No one became homeless as the rehabilitation package was included a special financial package for constructing a house. People have very less information on the people who have accepted the second rehabilitation package which includes compensation of ten lakh rupees only. Most of them migrated to some other places along with their cattles and purchased land in different parts of the district and even outside the districts.

The health care accessibility and utilization has increased considerably while comparing to the pre displacement situation. Umri and Devri villages were located in the core areas of Sariska National Park and it was attached to forest. Travelling facilities were very least and the nearby town is far from the villages. People of Umri and Devri had to travel 20 and 25 kilometers respectively to access the health care services. It was very tough for them to travel such a distance with limited travel facilities. People were depended on the traditional system of medicine and rarely use to access hospitals. The relocation has changed the health seeking behavior of the community as all most all people access the primary health care centre which is within a distance of five kilometers. People felt that health of the people have improved and morbidity has significantly reduced while comparing to the pre displacement situation. The quality of water is an emerging issue and it may leads to high morbidity in the coming years.

The food security of the community is not affected in a manner which has shown in many studies (i.e. Oxfam, 2000; Ochola, 2006, 2007, Leach, 1991). Both the villages were sustainable in regard with the food security as they used to cultivate the crops needed for them along with cattle rearing, their primary occupation. The same situation continues and the quantity of agricultural production improved as all have availed land. Some changes in the food intake are observed as many crops which were easily available in the forest are not in a position to access in the new location and many crops are not yielded in the new location. The forest dependency on source of cooking also witnessed for significant changes as people were not in a position to access woods/other materials as easily before displacement.

Access to common properties and community resources is a crucial element which made these communities vulnerable. The entire ecological and environmental situation

they had before displacement has witnessed a change in the new location. Large majority of the people have depended on the common water resources such as wells/ponds as sources of water. The availability of such sources was exclusively high and their livelihood, cattle rearing was also depended on these to large extents. Existence of pasture land was a peculiar characteristic of the community but in the new location it is not in the scene. This was a main reason that people compelled to left cattle rearing as means of occupation. Both the communities don't have burial grounds and place of worship in the location which they had in the previous location. Researchers observed that the spiritual needs of the people are unmet and which leading them to a lesser spiritual well being. The offer of government to construct a common place of worship/temple is not yet fulfilled even after the four years of displacement. The higher dependency of people on forest for the resources of cooking became a significant challenge for them to access the same in the new location.

The visible effects of social disarticulation are very minimal. Most of the people have given an opportunity to choose the prospective neighbors in the location even before displacement. This has resulted minimal effects on the social relationship and networks of the people. Majority of the respondents have got the same neighbors and are satisfied with the relationships as before the displacement. But the non-existence of common places of worship/recreation effected in the traditional practices/celebrations and impacted on the opportunities to come together. Adaptation of new cultures and leaving behind the old one is very visible in the post displacement place. Social disarticulation is mainly seen among the relationship networks of women as most of them had an opportunity to go together for collecting woods and other forest resources or cattle rearing.

Development and displacement literature replete with loss of four fold-human, social, natural and economic capitals of the ousted communities of the development projects in manifold ways (Norvy Paul, 2014). These are the indicatives of possible marginalization. Marginalization occurs when peoples moves towards downward mobility. There are many instances researchers found in the present study which sidelined people into the corners. Loss of income, structural changes in occupation, reduced access to common properties and social disarticulation made these communities vulnerable and impoverished. Upward mobility also visible in this study as health care and education facilities are improved. The gross enrollment of the children of both communities has increased compared to the pre displacement phase.

Conclusion

In the era of environmental consciousness, higher industrial needs, globalization and privatization it is inescapable from the development induced displacement as land is the minimum requirement for any developmental initiatives. Ensuring a comprehensive rehabilitation package which guarantees to address the social and economic impacts is a necessity of the time. Those displacements which initiates without considering the dependency of people's socio-economic aspects to the particular place they live definitely leads to marginalization and vulnerability. Such people are always victims of

human right violations and continuous exploitation of the old age unsystematic module of development induced displacement.

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