



## IMPACT OF DEVELOPMENT INDUCED DISPLACEMENT IN KERALA, INDIA

Dr. Manjula, K.;<sup>1</sup> Arun Kumar, T. A.<sup>2</sup> and Aneesh, K. A.<sup>3</sup>

### Abstract

The present research study investigates the impact of land acquisition for development on the lives and livelihoods of displaced households from three major development project sites in Kerala, a state in South India. The projects sites include Kannur International Airport Ltd (KIAL) at Kannur, Techno City at Trivandrum and International Container Transshipment Terminal (ICTT) at Ernakulam in Kerala<sup>1</sup>. A total of 227 households were selected randomly from the 555 displaced households of these sites for detailed enquiry using a validated structured questionnaire. Information on their loss of physical assets, social assets, livelihood, and food security were collected to compare their quality of life before and after displacement. A Quality of Life Index (QLI) of these households was then constructed using nine parameters: access to land, ownership of residence, quality of housing, food security, health of family members, employment status, access to basic infrastructure, nature of community life and extent of social inclusion. The major findings reveal that their QLI changed significantly. The statistical analysis using T-test showed that in each project site it got reduced significantly ( $p$ -value $<0.01$ ). Their overall living conditions also showed that the displaced from KIAL had higher QLI compared to those from ICTT and Techno City. This resulting observation can partly be explained due to factors such as good governance and unique community approaches of the acquisition agencies. In conclusion we observed that if the free market mechanism in its urge to climb new heights unsettles the development needs of the poor, the state must definitely frame laws to prevent that and ensure adequate and timely resettlement of the victims of development.

**Keywords:** Land acquisition, development-induced displacement, quality of life, Kerala

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# **IMPACT OF DEVELOPMENT INDUCED DISPLACEMENT IN KERALA, INDIA**

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## **Introduction**

Strong popular agitations follow land acquisition everywhere in India with the backing of social activists, political leaders and nongovernmental organizations. During the last century, land acquisition processes were not socially or politically volatile issues. This was mainly due to low resistance from displaced land-owners, low level of evictions from residential areas and reasonable market prices of land (Mathur 2008). But today circumstances have changed. The market prices of land have shot up. Demand for urban land has increased. Evictions occur even from densely populated residential areas. As a consequence the resistance of land-owners has now become stronger even gaining popular support from the people within the region and even outside the state. In the Indian federation, by statute, land related issues are generally regarded as state government subjects for policy formulations. So it becomes the duty of the respective state governments to acquire sufficient land for development purposes. The agitations against such acquisitions are therefore mostly against the state governments even if they are for a national cause. Therefore the task of acquiring land has become a challenge to them. They are faced with a situation of whether to facilitate land for the creation of industrial infrastructural facilities and urbanization or to address the concern of those persons who lose their houses and livelihood in this course of action.

The choice of the state governments in this regard depends on the nature of development they desire. If they want economic development they need to project an investor friendly environment in the state with abundant and easily accessible factor inputs. If not their neighboring states will attract the investors both domestic and global for the purpose of exploiting opportunities to generate more output, employment and income. This competition, along with the development needs, makes them opt for an efficient and economic use of the prime land for economic and physical infrastructure. However such a decision disturbs the society adversely as prime land is scarce and is always occupied in alternate private uses. The resulting conflict of interest calls for 'land acquisition by the state' in the name of 'public purpose' on the maxim that 'public necessity is greater than private necessity' (Ram Mohan and Shiju 2011). At the same time the delays associated with the acquisition process, fixing of the compensation amount, insecurity of displaced households during the transition period and the process of resettlement all make life miserable to the population displaced. Then the criterion of equity compels the governments to follow an approach more humane that guarantees freedom of choice and distributive justice to the people who are the victims of development. In short, they are faced with a question of efficiency versus equity.

Considering the high density of population, large areas under paddy cultivation and the presence of water bodies, land acquisition in Kerala had also been a difficult proposal. This coastal state in the southern most part of India with a geographical area of just 38 863 square kilometers is home to 33.3 million people. The population density of the state is 859 people per square kilometer which is well above the national average of 382 persons per square kilometer (Census of Kerala 2011). Still the Government of Kerala has made land available for not less than 750 major, medium and minor projects from the private individuals displacing at least 2250 households<sup>2</sup> during the decade 2000-2010. As to the extent of area acquired, it comes to

approximately 4400 hectares spanning this decade<sup>3</sup>. Land constraints, definitely prevent the state machinery from clearing many investment proposals that may accelerate the development course of the state.

At the same time Kerala enjoys a strategic advantage due to its geographical position. City of Kochi in Kerala, for instance is only 12 nautical miles away from the Pacific Rim to Europe in the international maritime highway. There are major International Air Routes connecting the state with other corners of the world. With the provision for export-oriented production for world market and being offered all the facilities and world-class infrastructure, there is no doubt that Kerala has the potential to generate rich dividends and increase employment opportunities. Recognizing this, the Government of India (GOI) played a big role in the development of the Special Economic Zone (SEZ) notified at Kochi which was later followed by 20 other zones in different parts of the state (GOI 2011). Today all the districts of the state has SEZ earmarked for specific development purposes that necessitated large scale acquisition of land.

The main purposes behind land acquisition in Kerala during the past decade was for industries (40.83 percent) followed by transportation including road, rail, air and water transport facilities (29.3 percent) and construction of public amenities that includes telecommunications, drinking water, electricity and waste treatment plants (6.68)<sup>4</sup>.

The patience of those people who lost their land and livelihood were tried from the day there was the rumor that the government intends to take a decision to acquire their property. Literally all their rights to their personal possessions ceased as their property were frozen even before proper notifications were issued by the government. Most of them were found to languish on the uncertainty of whether getting evicted or not, that made them ultimately to reach a state of mind to agree to eviction for the sake of ending the uncertainty itself.

Finally, once the decision was made by the government the tables of their future turned. They soon became unfortunate victims of development and got isolated from the mainstream and their protests were unheeded. They were regarded as obstacles in the process of development and a nuisance by the government officials; in carrying out their duties. Furthermore, disheartened by this attitude of the society and the public towards them they found themselves helpless and were left to heal their wounds in private. With “fire in their eyes” and resentment in their hearts towards the whole system some of them fiercely resisted the might of the state government. Here, even the laws of the land did not come to their rescue as the projects concerned were ‘dream projects of the nation’. However the fulfillment of these dreams shattered their rights to have any dreams of their own. For reconstructing their lives they had to “move heaven and earth” and they did not get much support either institutional or social in this process. The political parties and the media tried to avoid them and only did “lip service” to their causes and this minority soon got disappeared from their eyes behind the curtain of time and space. It is at this juncture that the discussion of this article, a field study undertaken between 2011 -12 among the displaced households on three of the major development project sites in Kerala, base it central premise.

## **Objectives**

The main objectives of this research study are:-

- To examine the nature and extent of loss to the displaced households in Kerala due to the acquisition of their land; and

- To evaluate the change in the quality of life of these households as a result of displacement.

### **Research Design and Methodology**

This research is based on both primary and secondary data. The population of the primary data was arrived at by a careful scrutiny of the secondary data regarding the extent and nature of land acquisition in Kerala for development purposes during our reference period from January 2000 to December 2010. For getting this information during this period, the Kerala Government Gazettes, where the 4(1) notification<sup>5</sup> on land acquisitions by the Government is published, were reviewed. After careful review of some 570 Gazettes, only 208 notifications were accessible. It was later realized that these documents did not contain relevant information needed for this study as all the land notified in the Gazettes were not acquired and even if acquired it took some time that necessitated re-notifications. This limitation of the method widely followed by prior studies conducted in similar fashion (Fernandas 1998; Murickan et al. 2003) led us to devise another method of collecting land acquisition details of the state i.e. by seeking information through the *Right to Information (RTI) Act 2005*<sup>6</sup>.

As the main source of secondary data regarding the acquisition of land is the Revenue Department of Kerala Government, the RTI letters were sent to the land acquisition offices working under the Revenue Department. Three questions were asked pursuant to the RTI Act: 1) about the names of the projects for which land was acquired specifying our time frame; 2) the extent of land acquired for each of these projects; and 3) the number of displaced families from the respective project sites. The RTI responses were really encouraging in that except for a few offices of land acquisition in one or two districts we were able to get statistics on the extent of area acquired and the projects for which the land was acquired. But all the offices of the state were reluctant to give the details of the displaced land-owners as they had to refer to old office records. However permission was granted to the research team to collect them personally on any appointed date during a working day. So the team visited about 60 land acquisition offices along the length and breadth of Kerala to obtain this information. But these efforts were also only of partial success due to the usual difficulties of getting information from public offices directly, such as, the absence of concerned officials, lack of copiers in the office premises, reluctance and doubts raised on collecting details and so on. Nevertheless, it was worth a while that by remitting the required fee some information could again be collected by mail. By consolidating the outcomes of RTI data, both district and project wise, various lists on land acquisition were prepared specifying the area of land acquired and the number of families evicted.

Other development agencies connected with land requisition in Kerala that information were tapped from included (but not limited to) Kerala Industrial Infra Structure Development Corporation (KINFRA), Kerala State Industrial Development Corporation (KSIDC), District Industrial Centers (DICs), National Highway Authority of India (NHAI), National Airport Authority of India, Rail Vikas Sanchar Nigam, and Inland Water Authority of India. Data regarding the area of land acquired was collected from these sources - either personally or by using the RTI Act 2005. This data were also added on to the district and project lists as and when acquired for the duration of the research.

From these lists the three districts that ranked high in the area of land acquired during the past decade were identified. They were observed as Kannur, Trivandrum and Ernakulam. From each of these districts one project that revealed having displaced more than 100 households was selected at random as the sample projects. The projects thus selected were respectively Kannur

International Airport Limited at Kannur (KIAL), Techno City at Trivandrum and International Container Transshipment Terminal (ICTT) at Ernakulam. From these three project sites, altogether 555 households were evicted and thereby displaced. The sample size for this population was fixed as 227 according to sample size norms prescribed by Krejcie and Morgan (1970)<sup>7</sup>. At the disaggregated level sample proportionate to the total population of the displaced households was selected from each project. Thus, the number of households selected from KIAL was 50, ICTT was 129 and Techno City was 48. These sample households had a population of 996 persons comprising of 498 men and 468 women.

### **Nature and Extent of land loss**

During the last century, massive displacement of population occurred especially for the construction of hydro electric irrigation projects all over the world. In India too such displacements were considered inevitable and were even recognized as a sacrifice offered in the altar of development for a national cause (Mathur and Marsden 1998). However the risk, vulnerability and impoverishment on such displacement also became a subject of intensive research (Cernia 1998; de Wet 2006; Mc Dowell 1996). Later on World Bank also took efforts to study and assess the extent of loss suffered by the displaced population in the projects funded by the bank. These works assessed diverse projects, followed different methodologies, used distinct terminologies but were more or less unanimous in their conclusion that displacement and consequent resettlement has further marginalized and impoverished more people than it has enriched (Mathur and Marsden 1998; Koenig 2001; de Wet 2006). Realizing this unhappy state of affairs the World Bank even recommended the criteria of measuring the loss due to displacement as replacement cost of the lost asset rather than its market value at the time of displacement (Cernia 1996). Nevertheless the woes of the displaced continue as is revealed by this study.

The profile of the sample households before and after displacement, reveal the nature and extent of the loss they suffered in the course of land acquisition. The government of Kerala acquired, in total, an area of 15.72 hectares from the sample of displaced households. At the disaggregated level of each project more area of land was acquired from the displaced households of KIAL. From this project site the 50 sample households with a population of 215 persons sacrificed an area of 9.34 hectares to the airport authorities. From the project site of ICTT an area of 3.82 hectares was surrendered by 129 families with a population of 543 for the rail and road connectivity to ICTT. For setting up an IT city by Techno Park, the 48 displaced households that we studied gave up 2.52 hectares of land rendering 208 people homeless of displaced by virtue of infrastructural development projects.

Being a rural area, the project site of KIAL was less dense than the other two sites at the time of acquisition. The per capita land availability<sup>8</sup> here then came to 0.043 hectares. ICTT and Techno City on the other hand were thickly populated sites being located in or around the city and national highway. The displaced population on these sites had per capita land availability of 0.01 hectares. Compared to the state average, which comes to 0.132 hectares (DES 2009), these figures, were already very low. Land acquisition had further reduced the land holding status of these households. They were confined to the government compensated area of land. Thus, in the site of KIAL this figure got down to 0.009 hectares, 0.005 hectares in ICTT and 0.004 hectares in Techno City. Of these, only the displaced households in KIAL had some homestead to speak of in the rehabilitated site. On the other two rehabilitated sites, the area of land awarded was just enough to cover their residential building. Therefore, on all three rehabilitated sites the children

were deprived of playing space and the housewives were denied a kitchen garden. In fact they missed 'places to move around' the neighborhood - a habit they were used to. With the loss of such a spacious environment having no proper boundaries with the neighbors, after land acquisition, they felt caged and suffocated by the compound walls of their new abode.

The land acquired from these households was mainly dry land used either for cultivation or as homestead. Only on the project site of ICTT that some wetland were acquired and it amounted to only 6.5 percent of the total area acquired from the site. In both ICTT and Techno City more proportion of land was used as homestead, 73 and 66 percent respectively. The displaced households on these sites belonged to the marginal category<sup>9</sup> that held an area below 0.080 hectares. However in KIAL, 72 percent displaced households held land above 0.160 hectares and 77 percent of land acquired was under cultivation, the major crops being cash crops like coconut, cashew, pepper etc. Animal husbandry was a prominent livelihood for most women and even some elderly men inhabiting this site. This source of livelihood entirely dried up due to the acquisition of their land as they could not now afford to have space for a shed to keep their animals or a coop to keep their birds. The result was the loss of financial independence to the women and a gain of health problems to the elderly population because of their inactive lifestyle after the loss of this livelihood.

The sample households in KIAL were not reluctant to give the consent letters giving up the land for the national good. In fact some of them even encouraged and helped the officials in making their neighbors realize the need to rise up to the occasion by giving up voluntarily their property. But in ICTT around 32 percent of the houses were initially against acquisition as were admitted by participants in the survey. Four percent of the sample households in Techno City were also reluctant to oblige to the state government request. However later on, due to political affiliations, strong pressure from the government officials and the fear of police atrocities; they were forced to acknowledge consent letters, though with reservations and resentments. Still ten households refused to obey the state notice from the project site of ICTT and it necessitated the then government to go for forceful eviction by demolition of inhabitants' houses on 6 February 2008. This widely condemned incident became the most inhumane act in the history of land acquisitions in Kerala hitherto unheard of. However this incident also highlighted the vows of the displaced not only before the local community of the state but also to the global community.

There were also households who went for litigation despite the fact that it delayed the receipt of compensation and resettlement. The main grievances they took to court were regarding the discrepancies in the measurement of land, valuation of land and regarding entitlement to land. An estimated 10 percent of the sample households moved to court in ICTT and KIAL, but in Techno City, no court cases were noticed during the survey. Measurement disputes are still not resolved and some of the households even repealed the cases in order to avoid delay in getting compensation.

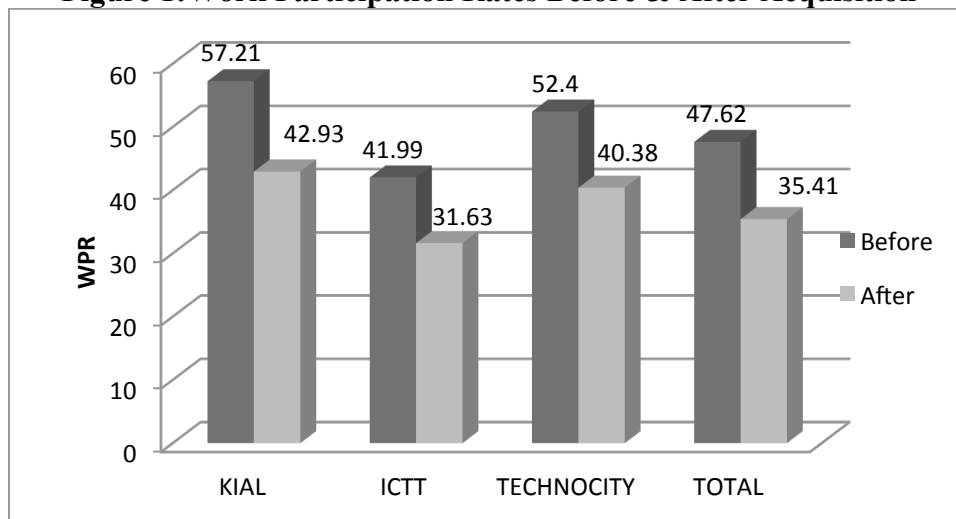
The values of the land acquired in all the three project sites were determined by the revenue inspectors appointed by the state government for this very purpose. The procedure followed was to find the value of similarly placed land from the sale deeds executed within the past three years within five kilometers of the land acquired. Then a District Level Purchase Committee (DLPC) constituted by the government officials, representatives of the people and the displaced land-owners together finalized the land value through negotiations and discussions. Both in ICTT and Techno City the displaced households were disappointed in the market value fixed by the government. They do complain that their properties were under-estimated by the officials. The sample households were also not satisfied with the evaluations made on the

improvements of their land, for example, the removal of buildings and trees that even included medicinal trees nurtured over generations and served as livelihood means to them. The buildings were valued after depreciation and this was also a bone of contention between the displaced and the officials.

### Nature and Extent of Job Loss

Acquisition of land and consequent displacement does have an effect on the work participation of the displaced population. The Work Participation Rates (WPRs) <sup>10</sup> before and after displacement among the displaced from the sample project sites is shown in figure 1 (below). Before displacement 47.62 percent of the total working age population used to be engaged in work and this percent declined to 35.41 after land acquisition. KIAL had the highest work participation rates 57.21 and 42.93 percent among the three project sites both before and after displacement, followed by Techno City and then by ICTT. In all three project sites, we found drastic reduction in the WPRs.

**Figure 1: Work Participation Rates Before & After Acquisition**

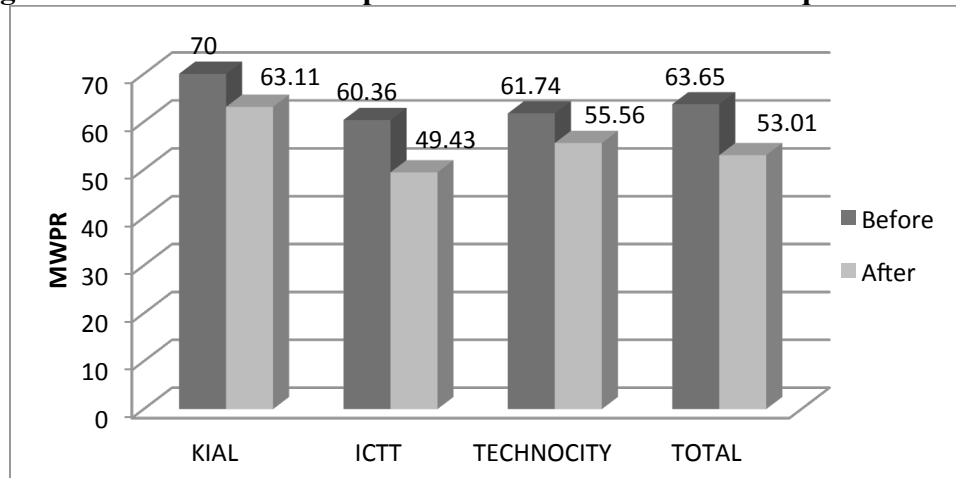


Source: Survey data<sup>11</sup>

The percentage differences in WPR project wise and gender wise are shown in figures 2 and 3(below). They show considerable differences in all categories in all project sites.

The Male Work Participation Rate (MWPR) in all project sites was high before displacement and showed a decline after displacement. In KIAL 70 percent of the male population worked before and this was reduced to 63 percent afterwards. In ICTT the MWPR was 60 percent before and it declined to 49 percent. In Techno City also MWPR declined to 52.17 percent from 61.74 percent. One major reason for such a decline is found to be the new responsibilities they had due to displacement. Many of the self employed and casual laborers were now full time engaged in the process of house construction either themselves as laborers or as supervisors. In KIAL the displaced casual workers like masons and painters and self employed persons engaged as electricians, plumbers or drivers were actually reconstructing their own houses rather than seeking work outside after displacement.

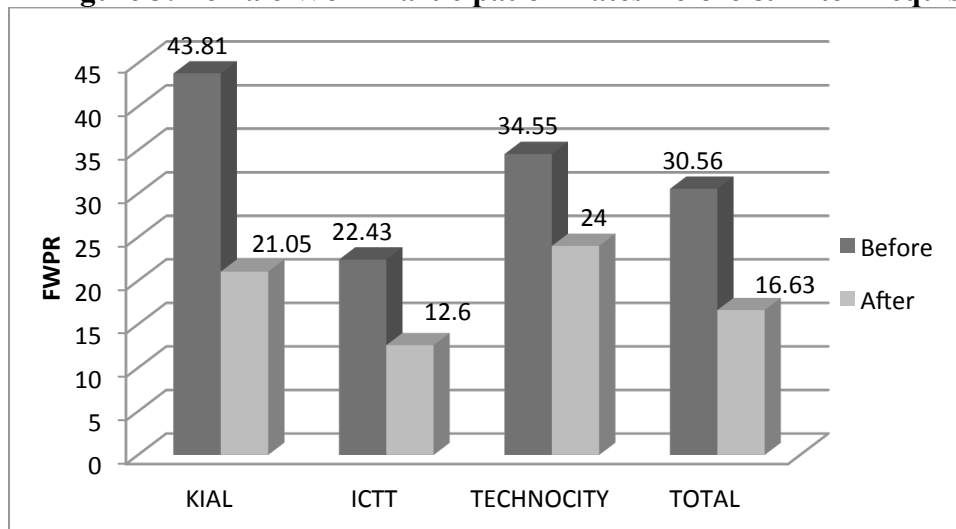
**Figure 2: Male Work Participation Rates Before & After Acquisition**



Source: Survey data

A more or less similar trend is seen in the case of Female Work Participation Rate (FWPR) also. The FWPR among the displaced from ICTT is found to be relatively smaller than the other project sites. However the decline in FWPR is quite significant in all project sites as their participation rate declined by 46 percent. In KIAL, it declined from 43.81 percent to 21.05 percent leaving around 52 percent females workers jobless when their property was lost. The main reason for this decline is the loss of land as these women were mainly engaged in animal husbandry which was no longer possible within the land given to them as compensation. In ICTT, also 45 percent women workers lost their employment options. The main reason for the reduction in FWPR in this project site is their dislocation from the vicinity of their workplace. They used to work in places which were previously closer to urban centers. So they were eager to seek out jobs within their neighborhood. After displacement, along with increased responsibility in the supervision of house construction, they found themselves far away from former places of work. The travel distance and other associated expenses now exceed the salaries they received before partly resulting in their reluctance to go out searching for employment.

**Figure 3: Female Work Participation Rates Before & After Acquisition**



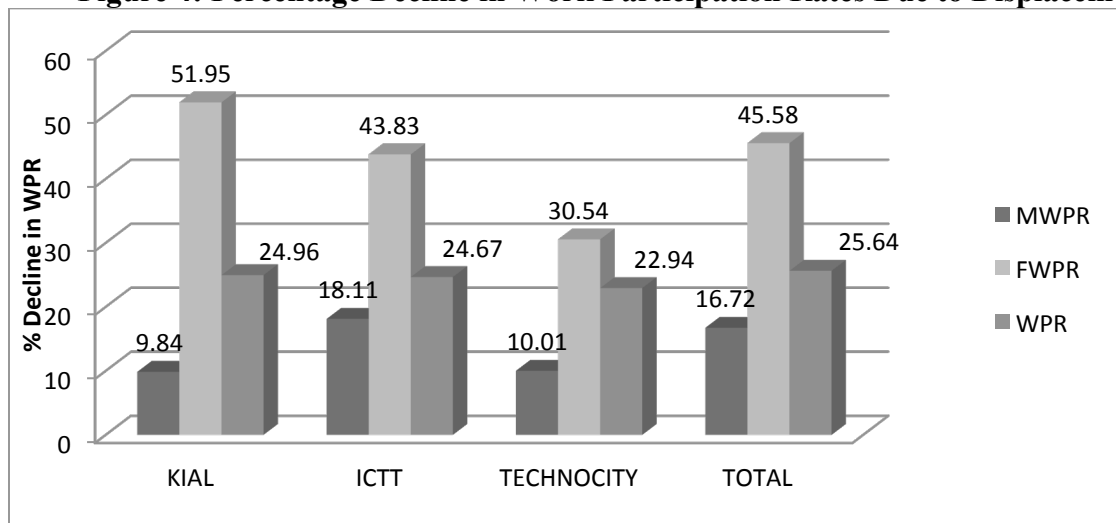
Source: Survey data



In short, the WPR in all the project sites declined by one-fourth due to land acquisition. The job loss to male workers was estimated at ten percent in KIAL and Techno City, whereas it came to 18 percent in ICTT. The decline to female population was more obvious and it ranged from 52 percent in KIAL to 31 percent in Techno City. Thus, the loss of land has definitely reduced the employment rate of women. The percentage decline in WPR with respect to gender ratio is shown in figure 4 (below).

There has also occurred a change in the occupational status of the household members. In all projects and in all categories the occupational status of regular employees remained the same as before. But a good number of persons engaged in self-employment and those who worked as casual labor lost their livelihood opportunities either because of their decision to withdraw from labor force or because they lost the opportunities to participate in work because of displacement.

**Figure 4: Percentage Decline in Work Participation Rates Due to Displacement**



Source: Computed from survey data

### Assessment of the Quality of Life

The evaluation of the quality of life focused on the displaced people's lives rather than on the wider impact of the project outcome for the general public. The phrase 'Quality of Life Index' is used to measure a generalized overall satisfaction of basic human needs, extent of welfare, good or poor living conditions, and other indicators. As such, this measure includes all the material aspects of human life, encompassing the physical and psychological dimensions of the displaced population. The quality of life in the study therefore covers diverse and innumerable human needs. At the elementary level, these needs may include essentials of survival, such as, food security, access to clean drinking water, sanitation and shelter. However, a concern of basic needs cannot stop at the level of mere continued existence; it has to go beyond these basic survival needs due to the special features and uniqueness of human beings and their socio- psychological needs and desires. Thanks to the innumerable amount of research works done in development related studies, this study now has a clearer and better understanding of the terms 'development' and 'impoverishment' (Cernia 1998; Sen 1999; de Wet 2006) which encapsulate such comprehensive perspective of what "quality of life" really is. Taking this into consideration, this study used both objective and subjective parameters to construct QLI of the displaced households before and after the land acquisition process. The main parameters used are

1. Access to Land: land ownership classified on the basis of the extent of land held as marginal, small, medium and large.
2. Residential Status: status decided on the basis of nature of ownership of residence as owned, rented, relative's house and no permanent residence.
3. Housing Status: on the basis of the age of construction of the house for QLI before calculation and on the basis of the stage of construction for QLI after calculation as "not constructed", "just started construction", "partially constructed" and "fully constructed".
4. Food Security Status: determined on the basis of self reliance of the household in the production of food grains or cereals, vegetables and dairy products.
5. Health status: on the basis of the existence of diseases among the members of the household.
6. Employment status: on the basis of the number of employed persons in the household.
7. Access to Infrastructure: on the basis of the availability of drinking water, power and transport facilities.
8. Community Life: on the basis of the behavior of the host population.
9. Social Inclusion: on the basis of their caste and religion.

The minimum desired level of score for the above parameters for a fair living condition was defined with a value of 30 on a scale of 0 to 100. All the parameters have been given equal weightage and the total score of QLI is fixed as 100. The classification on the basis of total score used for the analysis is as follows:

- a) Below 30 - Poor b) 30-60 - Fair or Satisfactory and c) greater than 60 - Good.

Appropriate statistical analysis was conducted wherever necessary to interpret the results. The scores of these parameters are given in Table 1 (below).

**Table 1: Parameters Used for the Construction of the Quality of Life Index and their Scores**

SL.NO	PARAMETERS	SCORE
<b>1.</b>	<b>Access to Land</b>	
i	Marginal	0
ii	Small	3
iii	Medium	6
iv	Large	10
<b>2.</b>	<b>Residential Status</b>	
i	No residence	0
ii	Relative's House	3
iii	Rented House	6
iv	Own House	10
<b>3.</b>	<b>Housing Status( age of construction)</b>	
i	Below 15 yrs	0
ii	15-30 years	3
iii	30-45 years	6
iv	Above 45 years	10
<b>4.</b>	<b>Food Security</b>	
i	No food security	0
ii	Produces at least one product in the group	3
iii	Produces at least two products	6
iv	Self reliant	10
<b>5.</b>	<b>Health Status( any members )</b>	
i	Have Chronic diseases	0
ii	Only Common diseases	3
iii	Only age related diseases	6
iv	No major diseases	10
<b>6.</b>	<b>Employment Status</b>	
i	No one employed	0
ii	At least one employed	3
iii	At least two employed	6
iv	More than two employed	10
<b>7.</b>	<b>Access to Infrastructure</b>	
i	No access to water, power and transport	0
ii	Some Access( at least one)	3
iii	Moderate access( at least two)	6
iv	Full access (all three)	10
<b>8.</b>	<b>Community Life</b>	
i	Unfriendly	0
ii	Satisfactory	3
iii	Friendly	6
iv	Happy community life	10
<b>9.</b>	<b>Social Inclusion</b>	
i	Scheduled Tribe Household	0
ii	Scheduled Caste Household	3
iii	Other Backward Community	6
iv	General	10

Using these parametric scores, QLI was constructed for all the 227 households and there were no households with a “poor” quality of life before displacement. Instead 165 households i.e., 73 percent had a satisfactory index with a mean score of 50.59, and the rest had had a “good” QLI with a mean score of 69.89.

After acquisition however their status changed substantially. The number of households having a satisfactory quality of life came down to 133 i.e., 58.5 percent and those having good index came down to ten i.e., only four percent. The mean score of the satisfactory category also came down to 44.13 and that of the good category became 62.78. The QLI constructed for all the three projects and extent of the status change at the total as well as at the disaggregated level are shown in the table 2 (below).

**Table 2: Quality of Life Index of the Displaced Household**

Project/ category of livelihood	Before			After		
	N	Mean	SD	N	Mean	SD
<b>KIAL</b>						
Poor	-	-	-	10 (20)	26.33	3.99
Satisfactory	15 (30)	52.22	6.96	34 (68)	41.18	7.51
Good	35 (70)	72.25	7.61	6 (12)	63.89	2.30
Total	50 (100)	66.24	11.83	50 (100)	40.93	12.23
<b>ICTT</b>						
Poor	-	-	-	53 (41)	22.45	5.06
Satisfactory	114 (88)	50.69	6.07	75 (58)	65.14	7.29
Good	15 (12)	67.19	5.42	1 (1)	61.11	-
Total	129 (100)	52.61	8.00	129 (100)	35.94	13.08
<b>TECHNOCITY</b>						
Poor	-	-	-	21 (44)	24.18	4.06
Satisfactory	36 (75)	49.57	5.61	24 (50)	45.19	9.56
Good	12 (25)	66.39	6.29	3 (6)	61.11	0.00
Total	48 (100)	53.77	9.32	48 (100)	36.99	14.01
<b>ALL PROJECTS</b>						
Poor	-	-	-	84 (37)	23.37	4.85
Satisfactory	165 (73)	50.59	6.06	133 (59)	44.13	7.92
Good	62 (27)	69.89	7.32	10 (4)	62.78	2.24
<b>Total</b>	<b>227 (100)</b>	<b>55.85</b>	<b>10.74</b>	<b>227 (100)</b>	<b>37.26</b>	<b>13.19</b>

Source: SPSS generated results

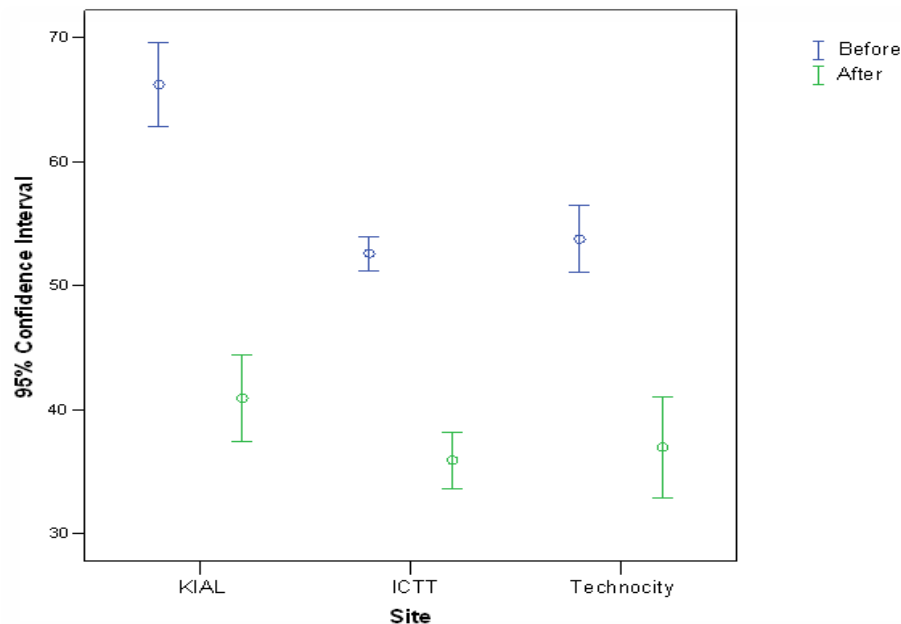
At the disaggregated level of the individual projects, more or less the same trend is seen. Yet in KIAL the category of households with satisfactory index increased from 30 percent to 68 percent. This can be explained by the shift of households from the earlier 70 percent good index category to the satisfactory category. Twenty percent households fell into the poor category in this project site. However, their mean score value 26.33 is more nearer to the cut-off value of 30, which is needed to be categorized as satisfactory. In ICTT and Techno City also 41 and 44 percentages of households respectively were pushed into poor category due to displacement.

To verify the significance of these status changes of the displaced from each of the three project sites and for all the sites together paired sample t-tests were done. The research hypothesis of the test was that the QLI after displacement is not less than the QLI before displacement. The results of the t-test show that, the p-values in each project site and for all projects together are less than 0.01. So we rejected the (null) hypothesis at one percent level of statistical significance, providing evidence for the reduced quality of life of the displaced households observed in the three project sites.

This information is explained graphically by interval plots in figure 5(below). In the interval plot, the dot represents the mean value and it represents the 95 percent confidence

interval of the data. From Figure 5, it is clear that, the QLI of the displaced households got reduced after land acquisition in these project sites.

**Figure 5: Graph showing the means and confidence intervals of livelihood change**



Source: SPSS generated output

A cross tabulation of the displaced households was done to know the nature of status change that occurred among the displaced households as shown in Table 3 (below).

There were no households with poor living status before land acquisition in any of the project sites. But after displacement 33.9 percent of the satisfactory and seven percent of the good turned to poor category. This amounted to a reduction in one-fifth of the households with satisfactory index and more than one fourth of the households who had good index. From all the project sites together 37 percent households turned out to be poor.

In KIAL 70 percent households had good quality status. This came down and after acquisition 20 percent of the households turned poor. Only 26 percent of the households retained the same status they were before displacement i.e. 16 percent from the satisfactory and 10 percent from the good category. The nature of status shift is that 12 percent of the households who were having a satisfactory quality turned to poor quality status after land acquisition. Again from a good quality of life status eight percent turned poor and 52 percent turned to satisfactory status.

In ICTT the cross tabulation results are much worse than KIAL in the sense that 39.5 percent of the satisfactory and 1.6 percent of the good status households became poor. Only 48 percent of the satisfactory households could retain their earlier status and no households could retain their good index after displacement. Table 3 shows no person to be having a good index after land acquisition. The proportion of the households having a satisfactory index also got reduced and the proportion of the people who became poor rose to 41 percent.

**Table 3: Status change of displaced households from KIAL After Land Acquisition**

KIAL			After			Total
			Poor	Satisfactory	Good	
Before	Satisfactory	Count	6	8	1	15
		% of Total	12.0%	16.0%	2.0%	30.0%
	Good	Count	4	26	5	35
		% of Total	8.0%	52.0%	10.0%	70.0%
Total		Count	10	34	6	50
		% of Total	20.0%	68.0%	12.0%	100.0%

ICTT			After			Total
			Poor	Satisfactory	Good	
Before	Satisfactory	Count	51	62	1	114
		% of Total	39.5%	48.1%	.8%	88.4%
	Good	Count	2	13	0	15
		% of Total	1.6%	10.1%	.0%	11.6%
Total		Count	53	75	1	129
		% of Total	41.1%	58.1%	.8%	100.0%

TECHNO CITY			After			Total
			Poor	Satisfactory	Good	
Before	Satisfactory	Count	20	16	0	36
		% of Total	41.7%	33.3%	.0%	75.0%
	Good	Count	1	8	3	12
		% of Total	2.1%	16.7%	6.3%	25.0%
Total		Count	21	24	3	48
		% of Total	43.8%	50.0%	6.3%	100.0%

ALL PROJECT SITES			After			Total
			Poor	Satisfactory	Good	
Before	Satisfactory	Count	77	86	2	165
		% of Total	33.9%	37.9%	.9%	72.7%
	Good	Count	7	47	8	62
		% of Total	3.1%	20.7%	3.5%	27.3%
Total		Count	84	133	10	227
		% of Total	37.0%	58.6%	4.4%	100.0%

Source: SPSS generated output

Similarly, in Techno City three-fourth of the households had a satisfactory status while others had a good status. But after displacement 44 percent of them turned out to be poor. Nobody could gain a status change in this site and only one-fourth of the households had good index and 44 percent from the satisfactory group could retain their earlier status. Only six percent had a good status and 50 percent had satisfactory index.

Still when all projects are taken together the extent of status loss is found to be slightly lower. This could most probably be due to the inclusion of KIAL where only 20 percent were made poor while in ICTT and Techno City more than 40 percent became poor. So, to assess whether there exists any average difference (before - after) among the projects an analysis of variance test (ANOVA) was done with the hypothesis that the average difference for the three projects are the same. Since the p-value was less than 0.01, we rejected the null hypothesis and accepted that the average difference of at least one project is different. In order to identify the project which differed in the average difference, a multiple comparison test was performed which showed that, projects ICTT and Techno City had the same average difference. Thus, the average difference of project KIAL was proved different from both ICTT and Techno City.

### **Discussion and Conclusion**

The impact analysis of land acquisition on the displaced households from our sample research project sites proved livelihood status change, with statistical significance. However, it is important to highlight that due to good governance and humane approach the degree of livelihood change was lightly impacted in KIAL compared with the other two project sites. The nature of change in status of the displaced populations especially in ICTT and Techno City shows a really pathetic situation. It is clear that the livelihood strategies they followed were not strong enough to withstand the shock of land acquisition. Probably because the opportunity cost of land they possessed was not high enough to be used as a source of livelihood to serve as a store of value. The prices of their lost land were not adequate to make them purchase land somewhere else than using the government given plots on which they were reluctant to built their shelters. Again the qualities of human capital in these households were also not good enough to opt for multiple livelihood strategies that so many of them, mostly women, the aged and some self-employed healthy men refrained from taking up jobs after coerced displacement. The hue and cry these people had to rise to get adequate compensation and for good quality land made many of them to give up their jobs and turn to full-time activists against land acquisition.

In ICTT and Techno City, the state machinery and the requisition authorities have trampled down the lives of the displaced households in the name of development. Had the state not been an active intermediary this would not have happened. The acquisition authorities were indeed protecting the interest of the requisition agencies, such as, Dubai Port World<sup>12</sup> in ICTT and the profit seeking private IT investment companies in Techno City. Had they negotiated with the displaced households without the interference and compulsion of the state government, the displaced would have got a better price for their property and better terms of exchange. The goods and services produced by these agencies are exchanged for market price fixed by the forces of demand and supply in the product market. So in the factor market also they should be made to obey the market rules of exchange.

India being a country with diverse geographical features, the market value of land is not a correct measuring rod for the value of land lost. Even in states like Kerala where there exists a government fixed fair price for land the actual sale deeds show only one-third of the real price to reduce the stamp duty and registration fee. The use of this undervalued figure as a measure to assess the compensation to be paid is highly unjustifiable. Furthermore, there were also instances where the market value was overestimated and inflated and/or where the land owners got an undue advantage. To avoid both under and over estimation of market value, there should be a mechanism to make it reflective of the correct value of land. For this the whole system of

administration of revenue and registration departments in the state governments should be changed and this requires new legislation.

It is true that informational asymmetries do exist between the state government and the individuals in drawing out the contract in the process of land acquisition. There was absolutely no mechanism for the state or the owner of land to know how highly the other valued the land under consideration. So pricing was always difficult and both parties (state and local inhabitants) were left unsatisfied with the compensation awarded. Individuals, who considered their property invaluable, regarded the money awarded to them as a pittance and always felt cheated by the officials of the state. The state machinery on the other hand regarded the whole process as a burden to their exchequer and generally cumbersome. The ultimate beneficiary then was the third party –the requisition agency for whose purpose the land was being acquired. These big business corporations and multinational companies showed no other interest except that of the profits they get from their businesses established in the acquired land. To them and the nation the land acquisition meant development.

In concluding, it might be more useful to allow the market to play its own role in determining the value of exchange of land owned by ‘the public’ and made available solely for ‘private interest’. If the free market mechanism in its urge to climb new heights unsettles the development needs of the poor the state must frame laws to prevent adverse impact, especially on the most vulnerable populations. The state should let the market take care of economic development in striving for human development. The effective formulation and execution of the new *Land Acquisition Rehabilitation and Resettlement Bill (LARR Bill 2011)*<sup>13</sup> waiting for parliamentary sanction may enable the government to serve this purpose to protect the interest of the unfortunate and displaced land-owners.

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## Endnotes

<sup>1</sup>Kannur, Trivandrum and Ernakulum are three districts in Kerala.

<sup>2</sup>Compiled from the data provided by Land Acquisition Offices in Kerala state.

<sup>3</sup>Estimates compiled from the data made available by the Land acquisition offices in the state.

<sup>4</sup>Compiled from the secondary data collected from Land Acquisition Offices in Kerala.

<sup>5</sup>The first step for Land acquisition in India is the issue of a notification as per clause (1) in section 4 of the Land acquisition Act 1894 followed by the Indian government.

<sup>6</sup>As per the Right to Information Act 2005, the Government of India ensures the citizens the right to have information from public offices if they ask for it.

<sup>7</sup>Krejcie and Morgan(1970) devised the formula for determining the sample size for research activities and the study used this formula for arriving at the sample size of 227 adequate for 555 households. The formula is  $n = X^2 * N * P (1-P) / ME^2 * (N-1) + (X^2 * P * (1-P))$  Where n= sample size, X<sup>2</sup>=Chi-square for the specified confidence level at 1 degree of freedom N = Population Size P= Population proportion (.50 in this case) ME = Desired margin of error (expressed as a proportion)

<sup>8</sup>Total land area divided by population

<sup>9</sup>The land possessed by each household was classified into in to four categories marginal, small, medium and large. All those households who had land below 0.080 hectares were treated as having marginal land holdings with only homestead. Those between 0.080 - 0.160 hectares were categorized as possessing small holdings and those with 0.160 – 0.240 hectares were treated as in the medium category. Those households who had above 0.240 cents were classified to have a large land holding size for the purpose of our analysis.

<sup>10</sup>WPR =Total Working population divided by the total of working age population, MWPR = Total Male workers divided by total of working age male population. FWPR = Total Female Workers divided by total of working age Female population.

<sup>11</sup> Survey data refers to the primary data collected by the researcher

<sup>12</sup>A multinational company to whom the land was acquired by the Port Trust of India for constructing ICTT.

<sup>13</sup> Land Acquisition Rehabilitation and Resettlement Bill 2011, being debated in the Indian parliament.

## Reference

- Cernea, M. 1996. 'Understanding and Preventing Impoverishment from Displacement- Reflections on the State of Knowledge'. In Christopher McDowell (ed.). *Understanding Impoverishment the Consequences of Development- Induced Displacement*. Oxford, Providence: Berghahn Books.
- Cernea, Michael.M. 1998. 'Impoverishment or Social justice? A Model for Planning Resettlement'. In Mathur H M and Marsden D (eds.). *Development Projects and Impoverishment Risks Resettling project affected people in India*. New Delhi: Oxford University Press.
- Das, Samir Kumar. 2005. 'India: Homelessness at Home'. In Banerjee P, Sabyasachi Basu Ray Chaudhary and Samir Kumar Das. et al. (eds.). *Internal Displacement in South Asia, The relevance of UN's Guiding Principles*. New Delhi: Sage publications.
- de Wet, Chris (ed.). 2006. 'Risk, Complexity and Local Initiative in Forced Resettlement Outcomes'. In *Development-Induced Displacement Problems, Policies and People*. Oxford, London: Berghahn Books.
- Director of Census Operations, Kerala. 2011. *Census of India, Provisional Population Totals- Paper 1 of 2011 Kerala series 33*. Office of the Registrar General & Census Commissioner, India.
- Directorate of Economics and Statistics (DES). 2009. *Statistics for Planning*. Thiruvananthapuram: Government of Kerala.
- Ekka, Alexius and Mohammed Asif . 2000. *Development-Induced Displacement in Jharkhand, 1951-1995*. New Delhi: Indian Social Institute.
- Fernandes, Walter and Mohammed Asif . 1997. *Development-Induced Displacement in Orissa 1951 to 1995: A Database on Its Extent and Nature*. New Delhi: Indian Social Institute.
- Fernandes, Walter. 1998. 'Development-Induced Displacement in Eastern India'. In Dude S C (ed.) *Antiquity to Modernity in Tribal India, Vol 1: Continuity and Change Among the Tribals*. New Delhi: Inter-India Publications.
- Fernandes, Walter and Niraj Naik. 1999. *Development-Induced Displacement in Goa 1965-1995: A Study of Its Extent and Nature*. New Delhi: Indian Social Institute and Panjim.
- Fernandes, Walter, Nafisa Goga D'Souza, Arundhuti Roy Choudhury and Mohammed Asif . 2001. *Development-Induced Displacement, Deprivation and Rehabilitation in Andhra Pradesh 1951-1995: A Quantitative and Qualitative Study of Its Extent and Nature*. New Delhi: Indian Social Institute and Guwahati North Eastern Social Research Centre.
- Fernandes, Walter. 2003. 'Development Displaced and the Right to Life: Implications for the Northeast'. In Tanmoy Bhattacharjee (ed.). *Problems of Internally Displaced Persons in Assam with Special Reference to Barak Valley*. Silchar: Department of Political Sciences, Assam University.
- GOI. 2011. 'Discussion Paper on Potential Reform of the SEZ Policy and Operating Framework' . Department of Commerce. SEZ Division.
- Koenig, Dolores . 2006. 'Enhancing Local Development in Development-Induced Displacement and Resettlement Projects'. In Chris de Wet (ed.). *Development- Induced Displacement Problems, Policies and People*. New York, Oxford: Berghahn Books.
- Krejcie, Robert V. and Daryle W. Morgan . 1970. 'Determining Sample Size for Research Activities'. *Educational and Psychological Measurement*, 30: 607-610.
- LARR Bill. 2011, *Land Acquisition Rehabilitation and Resettlement Bill* Loksabha Bill No 77 of 2011, New Delhi.
- Mathur, Hari Mohan and Marsden. D.(eds.). 1998. *Development projects and impoverishment risks-resettling project affected people in India*, New Delhi: Oxford University Press.



- Mathur, Hari Mohan (ed.). 2008. *India Social Development Report 2008: Development and Displacement*. New Delhi: Oxford University Press.
- Mc Dowell, Christopher . 1996. *Understanding Impoverishment the Consequences of Development-Induced Displacement*. Providence, Oxford: Berghahn Books.
- Muricken, Jose, M.K. George, K.A. Emmanuel, Jose Boban and Prakash Pillai R. 2003. *Development-Induced Displacement in Kerala 1951-1995*. Bangalore: Indian Social Institute.
- Ram Mohan M P and Shiju M V. 2011. 'Land acquisition Act 1894: historical overview of judicial interpretation'. In Sakarama Somayaji and Smrithi Talwar (eds.). *Development induced displacement, rehabilitation and resettlement in India -current issues and challenges*. London, New York: Routledge.
- Sen, Amarthya. 1999. *Development as Freedom*. New Delhi: Oxford University Press.