***Original Research Article***

**IMPACT OF DEVELOPMENT-INDUCE RESETTLEMENT ON THE OCCUPATIONAL STRUCTURE OF SLUM DWELLERS: A CASE OF CUTTACK CITY**

**ABSTRACT**

Urbanization and Urban Development often results in displacement and resettlement of slum dwellers to make a way for infrastructural development. Cuttack is the second most populated city of Odisha with very high density of population. Decades of unplanned growth and rapid increase in urban population due to rural-urban migration results in haphazardly distributed settlements with small roads, limited parking and open space, development of slums/squatter settlements within the city. In recent times, developmental activities of Cuttack city under the 5T governance initiative of CM leads to the displacement of more than 20 slums from the city centres and resettled at outer parts of the city. The main focus of this study is to examine the impacts of urban development-induced resettlement of slum dwellers on their workforce structure. This study is based on both primary and secondary data. Primary data has been collected through questionnaire survey based on simple random sampling. In this study, 180 samples collected from 100 households which constitutes approximately 5% of the total household. On other hand, secondary data has been collected from CMC, Google earth engine. This study used descriptive statistics and simple cartographic technique for the data analysis. This study found that resettlement of slum dwellers highly impacted on their income due to increasing working distance, change of mode of transportation and decreasing working days. This study will help the city planners for better slum management in near future.

**Keywords:** Urban development; Slum resettlement; Occupational Structure; Questionnaire Survey; Cuttack City.

1. **INTRODUCTION:**

Urbanization, the increasing concentration of population in cities and towns, resulting in the growth and expansion of urban areas becoming a global phenomenon day by day. Globally more than half i.e. 56% of the world’s population lives in urban areas (The World Bank , 2023). Nearly 11% of the world's urban population lives in Indian cities, making India the second-largest urban system (NITI Aayog,2021) and 31.6% of India’s population lives in urban areas (Census,2011). The rapid increase in urban population is mainly because of rural-urban migration in search of better opportunities results in rapid formation and growth of informal settlements or slums in urban centres. Globally 1.1 billion people lives in informal settlements or urban slum areas (The World Economic Forum, 2020). As per the 2011 Indian census, 17.4% of urban Indian households reside in slums and as of 2020, 49% of the Indian urban population lives in slums (Statista, 2020). This puts immense pressure on urban land, and urban facilities like sanitation, transportation, housing, water supply, education and health facilities. It leads unpleasant environment and difficulty in living for urban people especially for urban poor. With a motive to transform urban India and to provide better living to the urban poor/ slum dwellers, government of India came up with various developmental schemes like JNNURM (2005), BSUP (2005), IHSDP (2005), RAY (2013), PMAY (2015), AMRUT (2015). Urbanization and urban development often result in displacement and resettlement of informal settlements or slum dwellers from city centres in order to make a way for infrastructural development. During this period of fast economic expansion in many countries, it is almost inevitable that urban land will be acquired for public and private investments, leading to forced removal and resettlement of urban households through urban renewal and redevelopment plans (Strauch, Takano, & Hordijk, 2015; Wang & Aoki,2018). Redevelopment and urban revitalization initiatives frequently have the most significant impact on informal communities. (Terminski, 2013). In developing countries' rapidly expanding cities, plans for disaster mitigation and urban redevelopment frequently involve relocation and displacement initiatives that pose a serious risk to informal settlements (Patel, D'Cruz, & Burra, 2002; Patel, Sliuzas, & Mathur, 2015; Terminski, 2015). An estimated 15 million people are forcibly relocated annually throughout the world by development initiatives designed to enhance people's lives through the provision of energy, water, transportation, urban infrastructure, agriculture, and population redistribution plans (Terminiski, 2015). Even if these initiatives greatly benefit society, they also have negative impacts, which are adversely affecting the marginalized and economically weaker sections of urban population. Cernea in his Impoverishment Risk and Reconstruction model suggests that there are eight interconnected manifestations of impoverishment, namely landlessness, homelessness, joblessness, marginalisation, insecurity regarding food, loss of access to common assets, sickness and death, and social disarticulation (Cernea, 2000b). According to a study carried out by the Working Group on Human Rights in 2012, BSUP resettlement projects are often implemented in urban fringe areas, putting them far away from employment centres, educational institutions and health care centres. As a result, the urban poor are unable to receive adequate shelter. Case studies from across the nation have also highlighted the low standard of housing as well as how small and far the apartments are from the places of work and educational institutions. Cuttack is the second most populated as well as second most urbanized city of Odisha with very high density of population. Decades of unplanned growth and rapid increase in urban population due to rural-urban migration results in haphazardly distributed settlements with small roads, limited parking and open space, development of slums/squatter settlements within the city. Cuttack, is also the second most slum populated city of Odisha with 163,766 slum population which constitutes 26.84% of the total population of the Cuttack city. In recent time various developmental activities happened and still happening in Cuttack under the 5T governance initiative of CM in order to provide improved facilities to the city’s people as well as the other people. The major developmental activities include the Renovation of Taladanda Canal, Renovation of Roads, Transformation of SCB Medical College and Hospital, Establishment of the Cuttack Netaji Bus Terminal, and development of the Mahanadi River Embankment area. The purpose of Taladanda canal renovation along with roads on the both sides of the canal is to provide easy access to patients and ambulances coming from different places of the state to SCB medical college & hospital. The transformation of SCB medical aims to provide world class medical facilities to people of Odisha as well as other states of India. As a result of these developmental activities, more than 20 Slums got displaced from the city centres and resettled at outer parts of the city. This displacement and resettlement caused changes in living conditions of slum dwellers both in positive and negative manner. A very little study has been conducted on this area about issues related to urban slum displacements. In recent time it is necessary to have an in-depth understanding about the slum related issues and their improvement for the sustainable development of the city. This study is focused on to analyse the impacts of displacement and resettlement of slum dwellers on their workforce structure at different resettlement sites which are located at the outer space of the city. This study will help the planers and policy makers in providing optimum benefits and better living conditions to urban poor or slum dwellers.

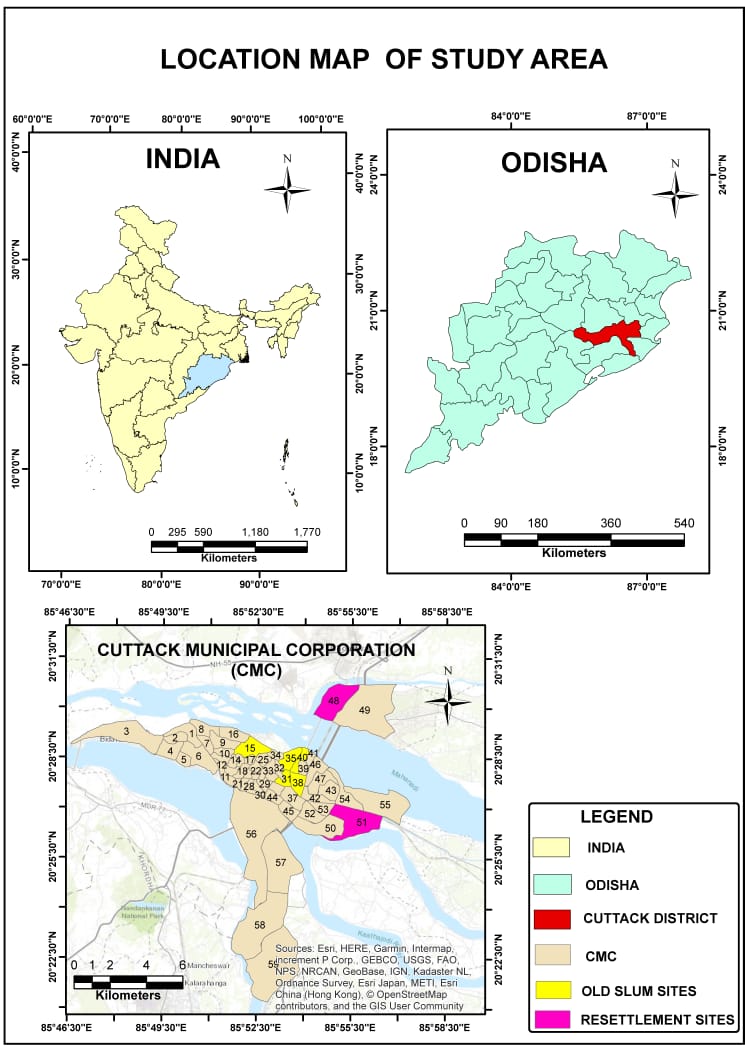
1. **MATERIAL AND METHODS:**
   1. **Study Area**

Cuttack is one of the oldest districts as well as oldest city of Odisha, situated on a land formed by the river Mahanadi and its tributary Kathajodi river. The city is located on the eastern part of the Indian sub-continent and in the coastal belt of Odisha. It extends from 2027’N to 2029’N latitude and 8550’ E to 8555’ E longitude with a hot and humid type of climate in summer and cold climate in winter. As per the census of India, 2011 Cuttack municipal corporation has an area of 192.5 sq. km with a population of 6,10,189, out of which 38% of people lives in slum areas. There is total 300 slums in CMC, out of which 264 are identified and 181 are authorized slums and nearly 57% of the slums are situated on state government’s land. For the city development and betterment of urban poor various developmental activities taken place which results in displacement and resettlement of slums. The number of displaced slums and resettled households at different sites are represented in **Table 1**. In this study two resettlement sites chosen on the basis of higher number of resettled households those are- Balisahi and Nimpur. Balisahi is located on the bank of kathajodi river with 1212 resettled households and Nimpur is situated on the bank of the river Mahanadi with 700 resettled households.

**Table. 1. Displacement and Resettlement of Slum Households Under City Development Activities.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| City Development Activities | Number of Slums Displaced | Number of Resettled Households at Different Resettlement Sites | | | | | Total households |
| Balisahi | Nimpur | Nazarpur | Laxmanpur | OMP |
| Taladanda Canal Redevelopment | 13 | 1015 | 508 | 68 | 0 | 225 | 1816 |
| Redevelopment of SCB Medical College &Hospital | 5 | 57 | 192 | 237 | 0 | 0 | 486 |
| Mahanadi River Embankment Development | 2 | 140 | 0 | 0 | 200 | 0 | 340 |
| Total | 20 | 1212 | 700 | 305 | 200 | 225 | 2642 |

**Source:** Cuttack Municipal Corporation (CMC)

**Fig. 1.** Location Map of Study Area

**2.2. Database and Methodology**

This study is based on primary and secondary sources of data. The primary data collected from the 2 selected resettlement sites i.e. Balisahi and Nimpur. The selection of these resettlement sites is based on purposive sampling technique where sites are chosen on the basis of higher number of resettled households and selection of sample households is through simple random sampling method. In this study 180 working population (108 from Balisahi and 72 from Nimpur) taken from 100 Sample households (60 from Balisahi and 40 from Nimpur) which constitutes nearly 5% of the total resettled households of these two resettlement sites. The data related to workforce structure like types of work, distance between house and work place, mode of transportation, cost of transportation, number of working days, income etc. before and after resettlement collected through interview and questionnaire survey method. The secondary data collected from Cuttack municipal corporation, google earth engine and literature review. The data analysed by calculating simple percentages and represented with the help of simple cartographic techniques like maps, chats diagrams and tables.

|  |  |
| --- | --- |
| (a). Taladanda Canal Site Before Displacement of Slums, Cuttack City (2018) | (b). Taladanda Canal Site After Displacement of Slums, Cuttack City (2022) |
| (c). SCB Medical Site Before Displacement of Slums, Cuttack City (2018) | (d). SCB Medical Site After Displacement of Slums, Cuttack City (2022) |

**Fig. 2.** Satellite Imagery of Displaced Slum Settlement Sites. Source: Google Earth Engine (2018, 2022)

1. **RESULTS AND DISCUSSION:**

The study carried out to examine the impacts of resettlement on workforce structure of the displaced slum dwellers due to city development activities. In this study we found that the slum dwellers are mainly involved in sanitation works, construction workers or daily labourers, cart pullers at both original and resettlement sites. The **Table 2** shows the workforce structure of slum dwellers, here it indicates that at Balisahi, 28% of workers are engaged as construction workers or daily labourer which accounts highest share among all the workers and before resettlement it was 24.2%. At the same time very few i.e. 4.3% of people works as sanitation workers, which accounts the lowest among all the working population at Balisahi. In case of Nimpur resettlement site, there is a sharp change in work after resettlement.

**Table. 2. Percentage of Workforce Participation of Slum Dwellers Before and After Resettlement**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Type of Work | Total workers (%) At Balisahi Before Resettlement | Total Workers (%) at Balisahi After Resettlement | Total Workers (%) at Nimpur Before Resettlement | Total Workers (%) at Nimpur After Resettlement | Total Workers (%) Before Resettlement | Total workers (%) After Resettlement |
| Sanitation Worker | 7.4 | 4.3 | 33.9 | 47.8 | 17.8 | 22.5 |
| Daily Labourer/ Construction worker | 24.2 | 28 | 8.1 | 7.5 | 17.8 | 19.4 |
| Maid | 13.6 | 15 | 24.2 | 7.5 | 17.2 | 11.9 |
| Driver/Cart Puller | 19 | 21.5 | 9.7 | 12 | 15.3 | 17.5 |
| Street food Vendor/Shop keeper | 21.1 | 14 | 6.5 | 10.3 | 15.3 | 12.5 |
| Govt./Private Worker | 7.4 | 8.6 | 12.9 | 10.3 | 9.6 | 9.4 |
| Others | 8.4 | 8.6 | 4.8 | 4.4 | 7 | 6.8 |

**Source:** Calculated by Author from Field Survey Data (2023).

**Table 2** indicates that there is 14% increase in sanitation workers and 17% decrease in maid/household workers. The increase in sanitation workers is because of SCB medical as it provides wide scope for slum dwellers to work there and out of these increased sanitation workers, most of them are females who started working to support their families.

**Fig. 3.** Educational Status of Working Persons

Source: Calculated by Author From field study (2023)

The decrease in maids after resettlement is due to displacement as before displacement most of the female workers were actively engaged in household activities at others’ houses or as maids in the residential areas of city centres, but after resettled at outer space of the city areas they lost their works at resettlement sites .The percentage of employees in government /private sectors are very less in both the scenarios i.e. 9.6% and 9.4% before and after resettlement respectively. The involvement of workers in these sectors are low may be because of the level of education as most of the workers (80%) were just did their schooling and 14% of people don’t even have any education. Only 6% of workers have higher secondary/higher education as shown in **Fig.3.**

**Fig. 4**. Change in Occupational Status of Slum Dwellers After Resettlement

Source: Calculated by Author from Field Study 2023

This study shows the change in occupational status due to resettlement. After resettlement as shown in **Fig. 4** about 76.1% of workers are continuing their works in the same sector or in different sectors but, 11.1% of workers lost their work and out of these workers 75% were female workers. Patel,S. et.al.(2015) from their study on Ahmedabad found that 14% of workers remained unemployed after displacement and it raised to 26% after relocation. Resettlement has been particularly hard on women due to greater job losses(Smitha and Dev,2018). About 12.8% new employment also generated after resettlement, which constitutes 52% female and 48% male workers. The main reasons of job loss and problems faced by dwellers after resettlement as stated by them are increased distance and extra transportation cost. It is found from a study carried out at Kigali, Rwanda that 38% of household Heads lost their jobs after relocation and the reason behind it was increased distance from the work places, unfamiliar communities and increased transportation cost (Nikuze,A. et.al., 2019). This study also found that the monthly income of slum dwellers also changed after resettlement that is 45% of workers responded increase in income, 28.3% of workers stated decrease in their income and 26.3% of workers faced no change in their monthly income. Patel,S. et.al.(2015) also mentioned in his study on Ahmedabad that 38% of workers had lost their income days after displacement. The change in income of slum dwellers more or less affected by certain factors like change in distance, mode of transportation, cost of transportation and number of monthly working days and other personal reasons.

**Table. 3. Change in Mode of Transportation of Workers (%)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Mode of Transportation | Total workers (%) At Balisahi Resettlement site | | | Total Workers (%) at Nimpur Resettlement site | | Total Workers (%) | |
| Before Resettlement | After Resettlement | | Before Resettlement | After Resettlement | Before Resettlement | After Resettlement |
| NA | 18 | | 19.4 | 13.9 | 9.7 | 16.7 | 15.6 |
| Walk | **43.5** | | **9.3** | **52.8** | **1.4** | **47.2** | **6.1** |
| Cycle | 10.2 | | 12 | 22.2 | 30 | 15 | 19.4 |
| Rikshaw/Cart | 13.9 | | 13 | 6.9 | 6.9 | 11.1 | 10.5 |
| Motor Cycle | 8.3 | | 12 | 2.8 | 9.7 | 6.1 | 11.1 |
| Auto | **5.6** | | **34** | **1.4** | **41.7** | **3.9** | **37.2** |

**Note:** NA represents not using any mode of Transportation**. Source:** Calculated by Author from field survey data, 2023

**Table 3** represents the various modes of transportation to work places before and after scenarios of resettlement. Because of increase in distance the mode of transportation got changed in case of certain workers. In case of urban areas, the importance of land is its location with respect to availabilities of work opportunities, basic facilities like health and education (Patel,S. et.al. 2015). Earlier before resettlement people used to go to their work place by walk (47.2%) and cycle (15%) but after resettlement only 6.1% of people are going to their workplace by walking and 37.2% workers are taking public transportation (auto), which was only 3.9% before resettlement. In spite of higher distance from house to workplace, the availability of public transportation is not so good at Balisahi resettlement site in comparison to Nimpur. Thus 41.7% and 34% workers are using public transportation at Nimpur and Balisahi resettlement sites respectively. With this 43.9% of working persons stated that their monthly transportation cost increased which caused pressure on their livelihood, resulting in poor living standard at resettlement sites.

**Fig. 5.** Change in Monthly Working Days After Resettlement

**Source:** Calculated by Author from Field Study 2023

This study also found that there is change in number of working days after resettlement. Earlier these dwellers lived near their work places and used to go their work regularly, but recently with increase in distance and transportation cost, 43.3% of total workers responded that their number of monthly working days reduced as shown in **Fig. 5,** the rate of decrease in monthly working days is higher at Balisahi resettlement site (49.1%) as compared to Nimpur resettlement site (34.7%). But there are also certain cases where the number of monthly working days increased (15.6%) and no change in working days (41.1%) after resettlement and the reason behind increase in working days as stated by them is to increase the monthly income. They are working overtime to earn extra money in order to have a better life.

1. **CONCLUSION:**

In this era of rapid urbanization and urban development, displacement of settlements is inevitable in developing countries. Odisha, one of the least developed states of India is now getting involved in various developmental activities under the 5T governance model of CM to provide better living to its people. Cuttack is one of the oldest districts and cities of Odisha. Because of unplanned developments, there was rapid growth and development of slum settlements. With the emergence of city development projects, there is occurrence of displacement and resettlement of slum dwellers in recent times. The combined project of the redevelopment of SCB Medical College and Hospital to make it an AIIMS-Plus institution, the largest state-run healthcare centre in the country and the Renovation of Taladanda Canal results in displacement of 20 slums from different locations consisting total 2642 slum households. After conducting this study, we found that majority of surveyed slum population responded that their quality of life improved in terms of housing and basic amenities provided by government at resettlement sites but livelihood in terms of occupation has affected after resettlement. It is noticed that slum dwellers mainly work in informal sectors as sweepers, cleaners, daily labours, construction workers etc. and least percentage of slum dwellers are engaged as government employees. This may be because of their level of education. Around 80% of the workers have done their schooling (52% primary education), 14% workers do not have any education and only 6% workers have done their higher secondary and higher education. The monthly income and expenditure also got affected due to resettlement. With increase in distance, their mode of transportation changed, resulting in increased transportation cost and decreasing monthly working days. The changing workforce structure in terms of type of work, occupational status, distance between settlement area and workplace, transportation cost and number of working days led immense pressure on their livelihood at their resettlement sites. Slum clearance and their development is one the important missions in the process of city development. While resettling them certain provisions were also there for their betterment like free land provided to the slum dwellers under the Odisha Livable Habitat Mission (OLHM)- JAGA Mission with fifty thousand cash compensation, Tap water connection and electricity provided to each household by Water Corporation of Odisha (WATCO) and TP Central Odisha Distribution Limited (TPCODL) respectively. Mukhya Mantri Karma Tatpara Abhiyan (MUKTA) Scheme aims in creating sustainable wage employment opportunities for urban poor including vulnerable groups like migrant labourers, women, transgenders, persons with disabilities. It also ensures creation as well as maintenance of sustainable community assets like Mission Sakti Griha, Roads, children parks, open space development and beautification of resettled slum communities. Resettlement of slum dwellers and providing them basic amenities is very good decision taken by government, but for slum dwellers getting involved in some economic activities is more important. So, while resettling the slum dwellers, the city development authorities should be more considerate about this that slum dwellers should be relocated to those areas where they can get regular work.

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