

Slum Redevelopment: A Retrospective Study

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Abstract— During the last two decades of the 20th Century, many developing countries are facing the problem of urban poverty and slums. From 1950, India has introduced many policies for Slum Development and Slum rehabilitation. Several Studies, Articles and Research papers published in India regarding Slum issues. From the papers and studies, we will study the results and measures of the plan made in India during the years 1950 to 2021. Most of the work has been done to provide health facilities to maximum number of slum dwellers in India. Also some policies suggest solutions for basic needs, infrastructure, hygiene and other issues of slum dwellers. Some other papers suggest, history of policies regarding slum development and case study of Kalburgi city Slum. In this paper, we conduct a review of studies regarding slum policies in India about slum redevelopment, health and other issues and their success and failures.

Keywords: Slum, Policy, Urban, Rehabilitation, Research, Health

I. INTRODUCTION

During the last two decades of the 20th Century, many developing countries are facing the problem of urban poverty and slums. From 1950, India has introduced many policies for Slum Development and Slum rehabilitation. Several Studies, Articles and Research papers published in India regarding Slum issues. From the papers and studies, we will study the results and measures of the plan made in India during the years 1950 to 2021. Most of the work has been done to provide health facilities to maximum number of slum dwellers in India. Also some policies suggest solutions for basic needs, infrastructure, hygiene and other issues of slum dwellers. Some other papers suggest, history of policies regarding slum development and case study of Kalburgi city Slum.

Most of the study shows lots of health issues in Slum area arises due to unhealthy atmosphere, small houses and unhygienic standard of living. While considering rehabilitation and redevelopment of slum there are lots of other things involved. Some research papers suggest Land title and rights issues in slum areas, which include Urban Land tenure policy in Slum. Some study shows there are inequalities in housing and health in slum areas due to internal housing conditions, area characteristics and housing tenure.

This thesis provides guidelines about slum issues. The study shows various schemes implied by Central Govt, NGO's as well as Municipal Corporation and their implementation their prospects and constraint. Also, study suggests improvement in policies for Slum Redevelopment and Slum Rehabilitation.

II. LITERATURE REVIEW

Slum Redevelopment is a process in which Government tries to provide basic shelter to Slum dwellers with basic needs, facility and sort out the issues of Slum dwellers. In India and all over World many developing countries started lots of policies for Slums. Some of the policies are very useful for the local residents and their issues but improvisation in ground level not as per policy. So, here I have studied some published research work regarding slum policies and slum issues.

A study of the first article [**Urban land tenure policy options: titles or rights? By Geolrey Payne in Habitat International 2001**] shows that the article focussed on slum land ownership and how long ago the slum was established. The plan has been verified by the concerned government. The inhabitants may be predominantly of the same type and may also belong to different communities. The ownership of the slum dwellers is proved by the number of years they have lived there. According to the policy the slum dwellers are being protected as per the policy, it depends on the slum is privately owned? Publicly owned? Such policies are designed to legitimize land development and ownership in India, Brazil, Malaysia, Thailand, and the Philippines. Slums are classified accordingly the slum situated on public / private land or depending on the government land and when it is settled.

The next article [**New strategy of upgrading slum areas in developing countries using vernacular trends to achieve a sustainable housing development by Tamer Abdil Aziz in Energy Procedia 2011**] gives an overview of the growing slums due to increasing urbanization. What are the living and housing problems of the people, what are the problems faced by the slum dwellers and what are the similarities and differences between the various slums in the city? It has also studied whether there are social facilities like hospitals, schools, toilets available or not. The quality of the house in the housing colony and the construction of the building in which the building has been constructed by preserving the natural materials, proper water use and architecture and also the properties of the housing colony are fully inhabited. It is classified in two ways.

- 1) Premises - In areas where income and conditions are not balanced, low-income group people are found not good living standard whereas people have high income, society and environment are found to be good.
- 2) Environmental Problems - This is a study of architectures built without considering climate change.
- 3) Invisible Environmental System - Government officials / leaders have taken into account all the decisions taken without studying the environment.

[Revisiting Low Income Housing: A Review of Policies and Perspectives by Pritika Hingorani in Indian Institute for Human Settlements IIHS2011] This paper looks at the evolution of housing policy, particularly for lower income groups, from the time of Independence to the present day. Amongst other trends, it observes that the government's role has moved increasingly from that of a direct provider to an enabler of housing. Few demographics area had hugely subsidized of housing which 'reduced' its cost highly. Later central and state government funded, and came up with below policies:

1952 : Subsidised Housing Scheme for Industrial Workers and Economically Weaker Sections 1954: Low Income Housing Scheme 1956: Subsidised Housing Scheme for Plantation Workers 1956: Slum Clearance and Improvement Scheme 1959: Middle Income Group [MIG] Housing Scheme 1959: Rental Housing for State Government Employees 1959: Village Housing Projects Scheme 1959: Land Acquisition and Development Scheme 1961: Rent Control Act was significant in that it created huge disincentives for the private sector to invest in private rental housing. Above programs were mainly focused by Govt. and disjointed and fragmented, targeting a wide range of beneficiaries from dock and plantation workers to government employees.

In upcoming decades, private sector also shown its contribution in 1987 when the first National Housing Policy [NHP] introduced. Responsibility for implementing these was devolved to Urban Local Bodies [ULBs] under the 74th Constitutional Amendment. Also the Twelfth Five Year Plan and are expected to inform the formulation of RAY, played a vital role.

Study of this article **[The psychological toll of slum living in Mumbai, India: A mixed methods study by Ramnath Subbaraman, Laura Nolan, Tejal Shitole, Kiran Sawant, Shrutika Shitole, Kunal Sood, Mahesh Nanarkar, Jess Ghannam, Theresa S. Betancourt David E.Bloom, Anita Patil-Deshmukh in ELSEVIER 2014]** come to conflicting conclusions about the association between poverty and mental illness in low-income countries, with one review suggesting a strong association [Patel and Kleinman, 2003] and another multi-country analysis suggesting no association [Dasetal, 2007]. We recognize the importance of income, our finding of an independent and significant relationship between the SAI and CMD risk highlights the possible contribution of the slum environment to poor mental health and the limitations of using income alone to predict disease risk.

[A short History of Housing Policies in Independent India by Gaurav Mittal in 2014]

In this article author explains the Housing policies by Indian Governments from 1950s, at the start government come with "planned development" where the policies made more welfare centric, later these driven by a well-defined constellation of economic interests. After that Government changed gradually from provider of housing to facilitator of housing activity. The study shows short history of these gradual changes based on a reading of Five Year Plans, housing-related legislations and documents relating to various housing schemes. For explanation and detail study the policies by government divided into four phases and

according years study explained. In this study it shows a changes in policies of government after applying one by one policies.

This is a global study of slums. **[Land for Poor: Towards Sustainable Master Plan for Sensitive Redevelopment of Slums by Ghada Ragheb in Procedia - Social and Behavioural Sciences 2016]** The most important slum cities in the world are Alzheimer's in Egypt, Alexandria in Egypt and Dharavi in India. Dharavi in India is ranked third in the world. This paper provides an in-depth study of the geographical, social and economic conditions of Alexandria and Dharavi. Accordingly, information has been given on how to develop the slums and UN HABITAT has taken note of this and made its information available globally. SRAs have been set up for these slums in India and they have been given guidelines. They are as follows:

- 1) When redeveloping a slum, it should be started in stages so that the employment of the people is not lost and the people of the area can live in the same area.
- 2) Social commitment and the culture of the people should not be hampered while implementing SRA.
- 3) The leather factory and garment factory in Dharavi should be revived and its business should be planned smoothly and properly.
- 4) Planning should be done keeping in mind that business in Dharavi is the main center of supply and demand.

When rehabilitating slum dwellers, open space should be used and then the existing buildings should be demolished and houses should be built on the ground instead of multi-storied buildings so that the business of the people can come to the main road. This article examines the differences between the two slums. While the city in Egypt is considered a tourist destination due to its coastline, Dharavi is famous for its leather markets and garments.

[Problems and Prospects of Slums in India by Raunak Prasad in International of Multidisciplinary Approach and Studies 2016]

Policies made by Govt, for Slums, housing and Five years plans together shows:

- 1) Rate of Supply against the demand is very poor.
- 2) Beneficiary identification is a problem which causes delay in occupancy of these houses.
- 3) There is a lack of coordination between several bodies responsible for the functioning of the programme as the programme is centrally sponsored but the work of beneficiary identification lies in the hands Local authorities [municipal corporations or development authorities]. In the same way developer is responsible for the construction work. Lack for coordinated governance is also leads to delay in periodic fund release.
- 4) Time lag increases the cost of construction, hence the budget is disturbed.

Food regarding article shows, **[Unhealthy Fat in Street and Snack Foods in Low-Socioeconomic Settings in India: A Case Study of the Food Environments of Rural Villages and an Urban Slum by Ramith Debnath in Habitat International 2019]** food environment in villages and urban slums are sold in unbranded packages with

unhygienic news plates like newspapers. When authors analysed the fat in this food the results were shocking, street foods available and sampled from the vendors in the low-SES settings in North India. The researchers determined the snack sampling strategy using data obtained from the consumer-level study. Conclusion from the study shows its needed to take action against the oil manufactures.

[Slum development using zero waste concepts: construction waste case study by S.M. Elgizawya, S.M. El-Haggarb, K. Nassara in 2016]

Slum development through zero waste concepts is a comprehensive solution to the current slum development problem and waste accumulation problem can be achieved and should be encouraged by the government.

The selected disaster management strategy in Ahmedabad is studied in this article **[Slum Upgrading Programs and Disaster Resilience: A Case Study of Indian ‘Smart City’ by Jessica Yuva in 2016]**. Natural disasters, such as earthquakes, hurricanes, and floods, indicate the need to change disaster management plans and strategies to study the project. The main objective of the project is to make strategic decisions, prioritizing both the city's development and the disaster management agenda. This has led to research on how to deal with natural disasters and how to handle the situation. Work was done on identifying the basic need to prepare the data and first help at the local level and then at the state / country level.

The next study shows, **[How does slum rehabilitation influence appliance ownership? A structural model of non-income drivers by Ramit Debnath, Ronita Bardhan, Minna Sunikka-Blank Energy Policy 132 in 2019]** the slum rehabilitation housing is due to change in house hold practice. Methodology has questions designed for the BE, HP and AC for social practice theory. Based on the survey of 1224 households, finding shows better regulatory and energy efficiency policies are needed for low income settlements.

This paper focuses on **[Effective management of slums- Case study of Kalaburagi city, Karnataka, India by Sulochana Shekhar, Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Neelakudi, Thiruvarur, Tamil Nadu, 610005, India in Journal of Urban Management in 2019]** the identifying the slums from satellite imaging captured in HD resolution. The finding of the paper gives Frame Survey Map based on this images the blocks of houses with slum characteristics can be identified for policy makers. Also, this paper gives the insight for future slums places from the same study.

[Improved indoor environment through optimised ventilator and furniture positioning: A case of slum rehabilitation housing, Mumbai, India by Ahana Sarkar, Ronita Bardhan in Frontiers of Architectural Research 2020] During the huge number people staying at one place like slums, then water, fresh air is needed for good health. In this paper, to get ensure fresh air in indoor environment improvised natural and thermal ventilation can be achieved by parametric design modelling based frame work. Authors have concluded their hypothesis as optimized design layout scenario 3 [ODL 3].

[Measuring multiple housing deprivations in urban India using Slum Severity Index by Amit Patel,

Phoram Shah, Brian E. Beauregard in Habitat International 2020] Lack of material benefits of basic necessity has been found in slums of developing nations like India. In this paper authors studied the Slum severity index for estimating how slum statistics underestimated for housing problems. The framework developed by Patel et al. in 2014 and Census of India from 2011. to improvise the provision of benefits the need of Zoning laws and planning the policies are advised.

This study **[JUE insights : Does mobility explain why slums were hit harder by COVID-19 in Mumbai, India by Jaymee Sheng, Anup Malani, Ashish Goel, Purushottam Botla in ELSEVIER 2021]** shows there are more risk and infection rate in slum areas that non slum areas during COVID 19 period. Also by survey and government records it shows there are more chances of infection because of households are more crowded and also slum dwellers are sharing toilet and water facilities publically. In this study they shows first hypothesis in the context of Mumbai. Also survey by Smart Phone location data, Slum Location data, Home Location, Measures of Mobility gives more detailed picture of Policy effects in slum areas. Sero-Survey suggests 3.2 times greater chance of slum locality than non slum areas.

[Life between the city and the village: Scaling analysis of service access in Indian urban slums by Anand Sahasranaman, Luís M.A. Bettencourt in World Development 142 – 2021] Systematic relationships mark a first step in creating a general scientific assessment of slums and neighborhoods in Indian cities, and establishing a benchmark for several dimensions of human development in slums across this immense country.

[COVID-19 in India: Who are we leaving behind? By Emmanuel Raju, Anwesha Dutta, Sonja Ayeb-Karlsson in ELSEVIER 2021] This research highlights the safety measures such as lockdown taken to fight against COVID-19. It briefly indicates how these measures were unplanned and declared without any prior intimation. It gives brief analysis of how these type of measures have badly affected the lives of residents of urban slums and informal settlements. This research suggests human rights based recommendations for immediate action to safeguard these vulnerable populations.

[Asia’s largest urban slum-Dharavi: A global model for management of COVID-19 by Jyotsna Kaushal, Pooja Mahajan in ELSEVIER 2021] This article is beneficial for government policy makers and private agencies in controlling the COVID-19 pandemic in densely populated areas and also for nations with high fatality rate. Dharavi [Mumbai], a highly-populated area of the world to control COVID-19 pandemic could be a boon. The 4-Ts [Tracing, Tracking, Testing, and treating] model approach adopted in Dharavi proven to control the COVID-19 virus spread through the breakdown of the chain of virus transmission. The Dharavi people set an example for the entire world for not only to curb the spread of the virus but also to control fatality rate. Thus, the “Dharavi Model” can be a role model for not only in control ling pandemic in informal settlements, slums etc. but also for developed nations where fatality rate is quite high."

A systematic review of slum policies by Amit Patel, Nimesh Killemschetty in 2020]

Certain programs that were considered a policy failure once in a country have become an appealing policy option at a different time in the same country or in another part of the world. To learn from the available methodologies, conduct a systematic review of past slum policies and programs in terms of their effectiveness that could enable policymakers for designing and implementing evidence-based slum policies.

After all research paper I had also studied an online course on Edx platform [**Urban Upgrading for Inclusion, Sustainability and Resilience in a time of Global Pandemics by EDX online course 2022**] This course useful for, Understand urban slums, their underlying social, economic and spatial characteristic, Analyze evolution of policy approaches to addressing urban slums under different contexts. Review and apply key operational principles. Specifically, at the end of the course, we will be able to: Understand urban slums, their underlying social, economic, and spatial characteristic, how they emerge and consolidate, and their impacts to local communities and the city as a whole. Analyze evolution of policy approaches to addressing urban slums under different contexts, what worked, what did not work, and why. Review and apply key operational principles and instruments for designing an upgrading intervention, including planning, finance, infrastructure, land tenure, housing, social inclusion, and sustainability. This study helps us to articulate urban policies, institutional reforms, and spatially targeted interventions. To plan upgrading interventions from a neighborhood project level to a city-wide scale. To finance upgrading interventions, leveraging public, private and community resources and the role social enterprises play in servicing the poor. To increase tenure security in informal settlements.

III. PROPOSED WORK

Accordingly, studies from published Research papers, articles and study material I had selected a slum area in Solapur city for the proposed project. By studying all the geographical, social and economic aspects of the slum, it will be possible to know the living standard of the slum and the problem of housing in the slum. Study will be used for improving the basic amenities, hygiene, health and living standards of the slum dwellers.

I have chosen some slums in Solapur. It is my intention to make a project for my final year by studying one of these slums.

The slums I have chosen are as follows:

Bharat Ratna Indira Nagar, Rajiv Gandhi Slum, Shastri Nagar Slum, Bhagwan Nagar Slum, Kurban Hussain Slum, Falmari Slum.

IV. OUTPUT

From the first few articles, a study has been shown on the ownership of slum land, according to which the list of official slums and unauthorized slums in Solapur has been published by NCP. The study of health facilities, incurable diseases, living conditions can help to prevent the spread of the disease in the slums of the city, or it can be treated. This study will definitely help you to improve the classification and lifestyle of men and women of a certain age. According to the study of Housing Colony, some of the schemes in Solapur such as

Mantri Chandak Nagar, Indradhanu, Jayaraj Park in the colony and slum facilities, living standards can be compared. From this, it will be possible to study all the things in Solapur and check how it will be used for the city of Solapur.

V. CONCLUSION

Till a date, a number of studies have been conducted in India level to address the problem of slums and their amenities. It tries to study all aspects of slums but mainly focuses on a few specific areas like, health, disease, shelter, employment. The World Bank has also laid down guidelines for slum rehabilitation and redevelopment which include all issues of slum like employment slum dwellers cannot be affect while slum redevelopment, etc. Accordingly, while rehabilitating and redeveloping slums, the problems of the slum dwellers need to be solved from the root. Their standard of living needs to be improved after rehabilitation. Awareness about health and education needs to be created. While rehabilitating, efforts will be made to raise the standard of living by making them aware of land rights, adequate area, basic facilities, employment, education, social commitment.

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