

Survey based Socio-Economic Analysis of a Slum: Case Study of Brahmपुरi, Haridwar

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Abstract— Slum is an integral part of informal urbanism. Generally slums population is that population who has migrated in search of job opportunities. These migrated people are homeless as well. Slum areas attract these migrated homeless people without planning. This study focuses on the issues faced by the slum dwellers where geographical location doesn't suit them.

I. INTRODUCTION & DEFINITIONS OF SLUMS

"Slum" is frequently used to portray casual settlements inside urban areas that have deficient lodging and hopeless living conditions. They are frequently packed, with numerous individuals packed into small living spaces. Slums are not another wonder. They have been a piece of the historical backdrop of practically all cities, particularly amid the period of urbanization and industrialization. Slums are commonly the main sort of settlement moderate and available to the poor in urban communities, where rivalry for land and expert fits is exceptional. The principle purpose behind slum expansion is quick and non-comprehensive examples of urbanization catalyzed by expanding rustic movement to urban zones.

As per the World Bank report (2008), Approx 1.29 billion people in the world living in absolute poverty (without adequate shelter and basic services). An estimated 30-40% of the people in large cities is slum dwellers or lives in slum like conditions. Also population in urban settlements is growing at rates between 2-3% per annum. The population in slum and informal settlements in urban areas is estimated to be growing at 6-8% per annum.

As per UN Habitat report 2003, Slums in many large cities are growing in size and in share of the urban population. By the year 2020, the current 30 percent level of urban poverty in the world could reach 45 to 50 percent of the total population living in cities, i.e., 381 to 455 million households.

Defining slums has become one of the major issues in today's world. The definition of slums varies from country to country depending upon the socio-economic conditions of the society (Chandramouli, 2003). Slums definitions are important to understand the magnitude of problems signifying the need for a better understanding of slums. The Encyclopedia Britannica defines slums as "residential areas that are physically and socially deteriorated and in which satisfactory family life is possible". As per UN Habitat, slums are defined as "a slum is a contiguous settlement where the inhabitants are characterized to have inadequate housing and basic services. A slum is often not recognized and addressed by the public authorities as an integral or equal part of the city".

According to census of India, 2001: "All specified areas in a town or city notified as 'Slum' by state, Union territory Administration or Local Government under any Act including a 'Slum Act'". All areas recognized as 'slum' by state, Union Territory Administration or local government,

Housing and slum boards, which may have not been formally notified as slum under any act and a compact areas of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities.

As per Andhra Pradesh state government, Slum is defined as an area is or may be a source of danger to the public health, safety or convenience of its neighborhood by reason of the area being low lying, insanitary, squalid, or otherwise, they may by notification in the Andhra Pradesh gazette declare such area to be a slum area and as per Madhya Pradesh state government, Area in any respect unfit for human habitation; or area by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings. Hazardous and unwholesome trade carried on therein, narrowness and faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors, are detrimental to safety, health or morals, it may, by notification, declare such area to be a slum area.

As per Haryana state government, areas in any respect unfit for human habitation, or are by reason of dilapidation, overcrowding, faulty arrangements and design of such buildings narrowness or faulty arrangements of streets lack of ventilation, light or sanitation facilities, or any combination of those factors detrimental to safety, health or morals" it may by notification in the official Gazette, declare, such an area a slum area.

II. INITIATIVES TAKEN BY THE GOI WITH RESPECT TO SLUM DEVELOPMENT/IMPROVEMENT

Government of India has taken several initiatives in this regards. They are:

The National Slum Development Program (NSDP) was launched in 1996. The Objective of NSDP was to provide adequate and satisfactory water supply sanitation, education facilities, health care, housing and environmental improvements through the creation of sustainable support systems. Through the scheme is "slum sensitive" and target funds to those states with the most pressing slum clusters, but it is highly subsidized without much or any contribution from beneficiaries.

Valmiki Ambedkar Awas Yojana (VAMBAY) was launched in December 2001. VAMBAY was a centrally sponsored scheme with an in-built subsidy for undertaking construction of dwelling units for slum dwellers. The scheme was successful in providing affordable houses to the urban poor and with the launch of JNNURM; elements of this scheme were dovetailed into JNNURM.

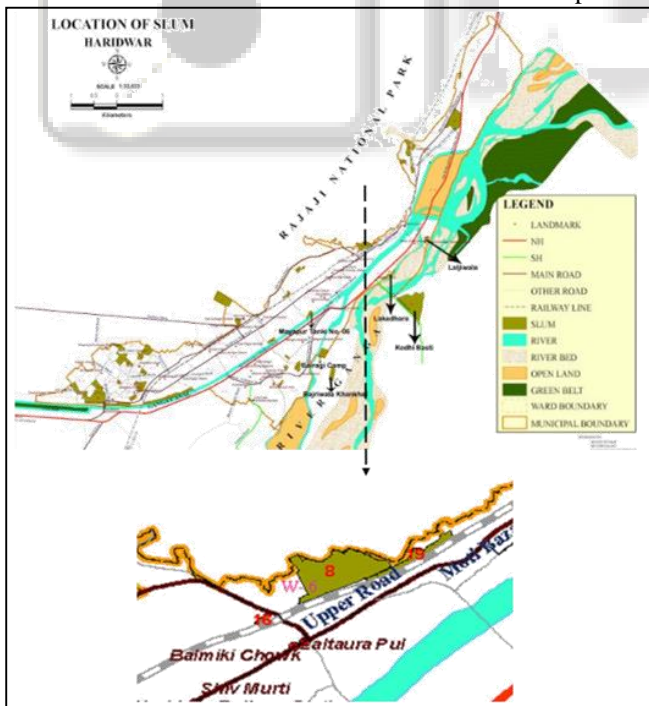
Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched in December, 2005 with the objectives of augmenting infrastructure facilities in cities and towns along with provision of shelter and basic civic services

to slum dwellers/urban poor. JNNURM aims at creating 'economically productive, efficient, equitable and responsive Cities' by a strategy of upgrading the social and economic infrastructure in cities, provision of Basic Services to Urban Poor and wide-ranging urban sector reforms to strengthen municipal governance in accordance with the 74th Constitutional Amendment Act, 1992.

Rajiv Awas Yojana (RAY) was launched in 2011. The Phase I is expected to cover about 250 cities, across the entire country by the end of 12th Plan (2017). The selection of the cities will be done in consultation with the Centre. The States would be required to include all the mission cities of JNNURM, preferably cities with more than 3 lakh population as per 2001 Census; and other smaller cities, with due consideration to the pace of growth of the city, of slums, predominance of minority population, and areas where property rights are assigned. The scheme will progress at the pace set by the States. Under the Scheme, Fifty percent (50 %) of the cost of provision of basic civic and social infrastructure and amenities and of housing, including rental housing, and transit housing for in-situ redevelopment – in slums would be borne by the Centre, including operation & maintenance of assets created under this scheme. For the North Eastern and Special Category States the share of the Centre would be 90% including the cost of land acquisition, if required.

III. INTRODUCTION TO BRAHMAPURI SLUM

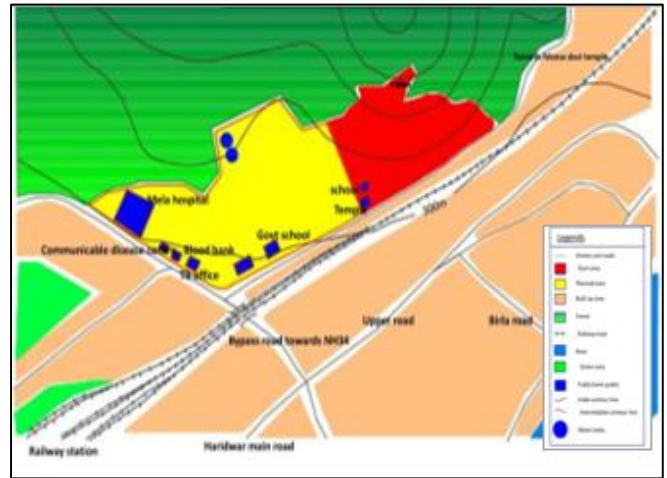
Brahmpuri is a slum in Haridwar nearby to Har-ki-pauri and is a place which is mostly acquired by the migrated people from different states in India. The total area of Brahmपुरi



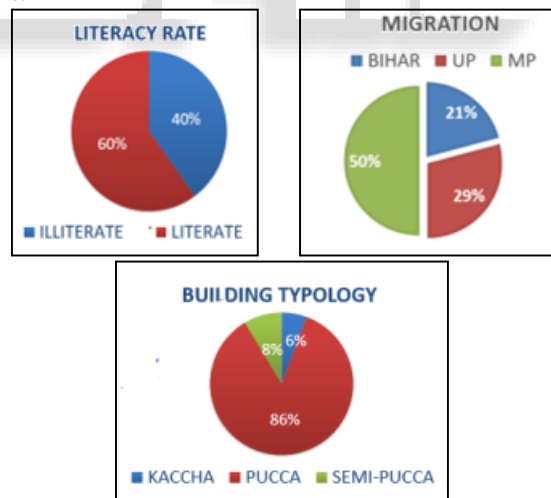
slum is 31768.8sqm; having the population of 785 persons the population density of the Brahmपुरi slum is 40-person persq.km. It is one of the notified slums in Haridwar. Brahmपुरi is having both developed and slum area in which 33% of Brahmपुरi comes under slum area and rest 67% comes under developed area. The site has a

topographical factor and is also located in the proximity of major commercial area (Har-ki-pauri).

IV. DEMOGRAPHIC PROFILE AND LANDUSE



The literacy of the area is 60% and the 40% which are illiterate are either old age people or housewives. The children are getting education properly with respect to the school available in the slum only. The people in the slum are migrated from M.P, UP and Bihar respectively. Maximum no. of people migrated are from M.P. people migrated to this area is because of in search of work, education for their children's and better living conditions. The housing condition in the bhrampuri slum is mix that means there are Pucca, semi-pucca and kaccha houses. The 80% of the house are Pucca houses and 14% are semi-pucca are mix land use, commercial on the ground floor and residential on the upper floors.

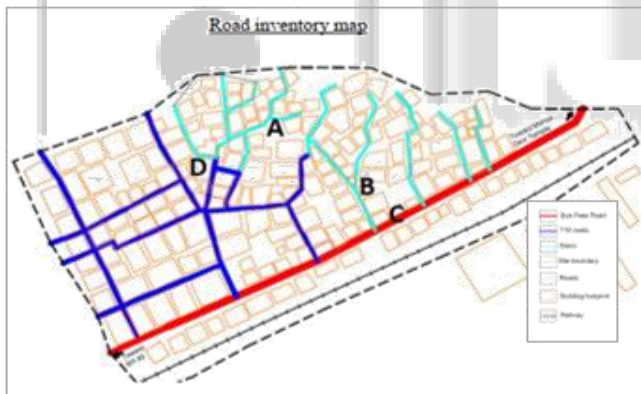


The above map is of Building Typology which is reflecting the settlement of buildings in the area. The area has mix building height and structure. The following pictures in the map are reflecting different faces of the area. Land use of Brahmपुरi is mainly residential as it is a slum area. People residing there, they work in nearby commercial areas. Living in slum is cheaper for them comparatively to other areas. At the periphery of the slum there is mixed land use along with the bypass road which further leads to Mansadevi Mandir on eastern side. The slope of this slum varies from

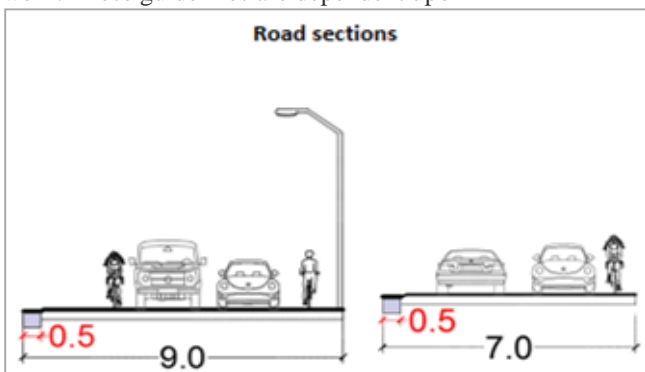


and kaccha which needs to be redeveloped and reconstructed from better living conditions and health safety of people living in slum. The area has mix building heights G to G+4. G+4 buildings are mainly on the main streets and 20m to 80m giving it a topographical factor.

V. ROAD HIERARCHY AND CONNECTIVITY



The hierarchy of road is dependent upon the function that the street is required to perform, and the kind of movement and the way users present. The outline speeds, way widths and other geometric characteristics are adapted to suit the way work. These guidelines are dependent upon



the accompanying characterization of urban way. According to IRC there are 4 types of urban Roads. They are Arterial Road having a ROW of 50-80m, Sub-arterial roads having a ROW of 30 to 50m, Collector streets having a ROW of 12 to 30 m and Local streets which is sufficient for a Car to enter Residential area. According to IRC we have only three types of road in Brahmपुरi slum area. 9 m ROW which is the bye- pass and 7 m ROW which are located inside the residential area. One thing that was noticeable in slum was its on hilltop so instead of streets, they were having Stair which is approx. 1.5 m, located in some part of the residential area.

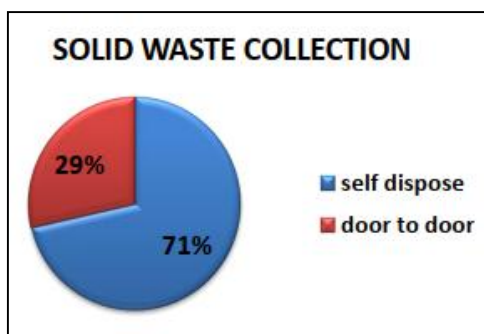
After examining the road network and connectivity, some issues were identified. They are

- Roads length is not sufficient in some area.
- Roads are not properly maintained.
- Stairs are not properly maintained.
- Streets lights are not sufficient for the area and
- There is no parking space for two wheelers as well as four wheelers.

VI. DRAINAGE SYSTEM

Drainage lines were located alongside the main road and alongside all the streets of the area. There are 3 types of drainage: open, close and semi open drainage. All drainage lines are connected with the upper part of Ganga Canal. Even drainage system was having some issues like Drainage lines were not properly maintained, Open drainage create pollution in the area, Close and semi close drainage located under the roads were not being maintained and due to the lack of dustbins, People throws waste in the drainage lines which create pollution and which also block the drainage lines.

VII. SOLID WASTE MANAGEMENT



Slums and squatter settlements are characterized by a gross deficiency of basic services such as proper housing, provision and supply of safe potable water, sanitation facilities such as latrines and disposal of human excreta, drainage of sullage water, paved roads including accessibility etc. The solutions for waste management problems, particularly in slums and squatter settlements areas, are increasingly difficult due to ever-increasing gap between generation, accumulation and removal. Solid waste management in Haridwar is monitored by Municipal Corporation and it is functioned by KMP Pvt. Ltd. There is public private partnership for managing the solid waste of Haridwar. Sarai is the new dumping site of Haridwar which is 10km away from Brahmpuri. 29% of waste is collected from door to door and rest 71% of waste is disposed directly to community bins by the people residing there. As there are large no. of people dumping their waste by own, is the reason behind the creation of unauthorized dumping sites in Brahmpuri slum area. The private company has provided door to door collection of solid waste with monthly charges of 50rs per house hold. The company doesn't cover the whole area of slum due to which there are lot of issues related to solid waste. There are identified dumping sites which unauthorized as people residing in near to those dumping site dumps their waste directly to those sites rather dumping it in the community bins. The collected solid waste from the community bins is been transported to the dumping site on daily basis by the municipal corporation, Haridwar as per the officials but on ground reality it is being collected once in 2-3 days.

VIII. WATER SUPPLY

The main source of water in Brahmpuri is the water of river Ganga, water of river is treated in water treatment plant .after the treatment, water is circulated in the whole Brahmpuri. The water duration in the Brahmpuri is 2 hours morning and 2 hours in evening but in most of the houses people don't get the water for 4 hours. So as per primary survey 71% people get water for 1 hour and 29% people get water for 2 hours only. There are total 6 tanks capacities of 38500 liters. The whole Brahmpuri is divided into 2 parts for the supply of water, water is circulated to the upper part through water tanks and to the lower region water is directly circulated from water treatment plant. Water is circulated in planned areas through 8 inch pipelines on the other hand in slum area water are circulated through 4 inch pipelines. The quality of water is good and the TDS value of water is 400 ppm as per norms it should be between 300 ppm -600 ppm, but as per primary

survey according to 10 -20 % people water quality is not good. Water treatment plant is well capable to fulfill the demand of water of the people but still in many places there is a shortage of water.

IX. CONCLUSION

Brahmapuri is an area which is having all the relevant characteristics to be called it as a slum. It has inadequate living conditions but people are residing because they don't have any other options. Most of the people in this slum are workers of daily wages. It's one of the notified slums of Haridwar but is being neglected by the local government. These are independent and growing slums which need to be focused for their development.

REFERENCES

- [1] Arimah, B. C., 2009. Slums as expressions of social exclusion: explaining the prevalence of slums in Africa. NAIROBI, s.N.
- [2] Habitat, u., 2003. The challenge of slums: global report on human settlements. NAIROBI, s.N.
- [3] Aggarwal, N. K. (2008). Level of poverty and employment pattern in slums: a case of Gwalior in central India. The Indian Journal of Labour Economics .
- [4] Bouddha Charumitra, D. K. (2014). Slum Redevelopment Strategy: A Way forward to Urban Environment . Research Journal of Engineering Sciences
- [5] Corporation, B. M. (2006). Poverty Mapping. Bhopal.
- [6] Deepika Andavarapu, D. J. (2013). Evolution of Slum Redevelopment Policy. Scientific Research-Current Urban Studies .
- [7] Hingorani, P. (2011). Housing Solutions: A Review of Models. Revisiting Upgrading: Low-Income Housing and Infrastructure. Mysore: Indian Institute for Human Settlements (IIHS).
- [8] Jagdale, R. H. (2014). An Overview of Slum Rehabilitation Schemes in Mumbai, India. Austin: The University of Texas at Austin.
- [9] Kapse, V. (2012). Paradigm of Relocation of Urban Poor Habitats (Slums): Case Study of Nagpur City. World Academy of Science, Engineering and Technology .
- [10] UN-HABITAT. (2003). The Challenge Of Slums. London: Earthscan Publications Ltd .
- [11] India, g. O., 2010. Report Of The Committee On Slum Statistics/Census, New Delhi: s.N.
- [12] Parmar, m. S., 2009. A Case Study Of Slum In Jaipur., s.L.: S.N.
- [13] Shirish, M., 2012. India's Urban Awakening: Building Inclusive Cities, s.L.: S.N.