



Slum Development Strategy Using advance geoinformatics tool – Based Multi – Criteria System A Case Study of Jalgaon City, India

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ABSTRACT

Urban poverty encourages the formation and demand for slums. In past, rural areas were typically thought of as regions of poverty. With rapid shift from rural to urban life, poverty is migrating to urban areas. The urban poor arrives with hope, and very little of anything else. He or she typically has no access to shelter, basic urban services and social amenities. Slums are often the only option for the urban poor. The incidence rate of slums is strongly correlated to poverty, insufficient social and economic development. The word slum has been used to identify the poorest quality housing, and the most unsanitary conditions; a refuge for marginal activities including crime and drug abuse; a likely source for many epidemics that ravaged urban areas, a place apart from all that was decent. UN Habitat 2003 has stated its description to refer to the term slum based on the first urban forum paper "Cities without slums" as "a wide range of low income settlements and / or poor human living conditions", and with the traditional meaning. The traditional meaning of slums is "housing areas that were ones respectable even desirable, but which have deteriorated as the original dwellers have moved to new and better areas of cities" having come to include also "vast informal settlements that are quickly becoming the most visual expressions of urban poverty, having varied quality of settlements with limited access to water electricity and sanitation".

Keywords: Urban, Poverty, Slums, Jalgaon, Habitat etc.

INTRODUCTION

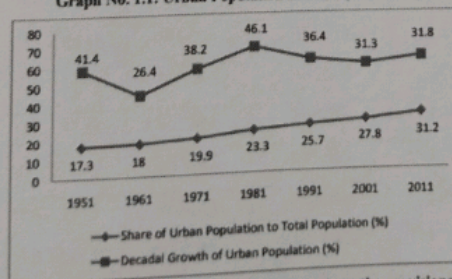
The UN Habitat defines slum as "A slum is a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is often not recognized and addressed by the public authorities as an integral or equal part of the city". Slum households are a group of individuals living under the same roof that has one or more of the conditions listed below:

- i. Insecure residential status
- ii. Inadequate access to safe water
- iii. Inadequate access to sanitation and other infrastructure
- iv. Poor structural quality of housing
- v. Overcrowding

These conditions are also called as characteristics of slums In 2008, more than 50% of the world's population lived in urban areas. In China, for example, it is estimated that the population living in urban areas will increase by 10% within a decade according to its current rates of urbanization. The UN-Habitat reports that 43% of urban population in developing countries and 78% of those in the least developed countries is slum dwellers.

The number of towns and the absolute urban population in India has increased steadily over the last 60 years. Urban population in India has grown from 78.9 million in 1961 to 286 million in 2001 and the same is estimated to be doubled in next 25 years. Cities and towns are centres of agglomeration economies, investments, technology, innovation, economic growth and tertiary jobs. Their contribution to countries GDP is immense.

Graph No. 1.1: Urban Population in India (1951-2011)



(Source: Census of India from 1951-2011; 2011 data from the provisional tables)

Around a quarter of the world's urban population lives in slums. And this figure is rising fast. The number of slum dwellers in developing countries increased from 689 million in 1990 to 880 million in 2014, according to the United Nations World Cities Report 2016.

In some cities in the developing world slum residents make up more than half of the population and often do not have adequate shelter, clean water and sanitation, education, or healthcare.



A lack of legal rights to land only makes the daily struggle worse, threatening people's homes and efforts to invest in essential services.

Many local and national governments have, for political interests, subverted efforts to remove, reduce or upgrade slums into better housing options for the poor. Throughout the second half of 19th century, for example, French political parties relied on votes from slum population and had vested interests in maintaining that voting bloc. Removal and replacement of slum created a conflict of interest, and politics prevented efforts to remove, relocate or upgrade the slums into housing projects that are better than the slums. Similar dynamics are cited in favelas of Brazil, slums of India, and shanty towns of Kenya. Rural-urban migration is one of the causes attributed to the formation and expansion of slums. Since 1950, world population has increased at a far greater rate than the total amount of rearable land, even as agriculture contributes a much smaller percentage of the total economy. Agriculture, meanwhile, has also become higher yielding, less disease prone, less physically harsh and more efficient with tractors and other equipment. The proportion of people working in agriculture has declined over the last 50 years, while global population has increased.

STUDY AREA

Jalgaon is a city in Maharashtra, India. The city is located in North Maharashtra, and serves as the administrative headquarter of its namesake district, the Jalgaon district. Jalgaon is colloquially known as the "Banana City of India" as the region's (Jalgaon district) farmers grow approximately two-thirds of Maharashtra's banana production. Jalgaon is also famous for its production of gold jewelry. Because of that Jalgaon is also colloquially dubbed as the "Gold city" of Maharashtra.

OBJECTIVES

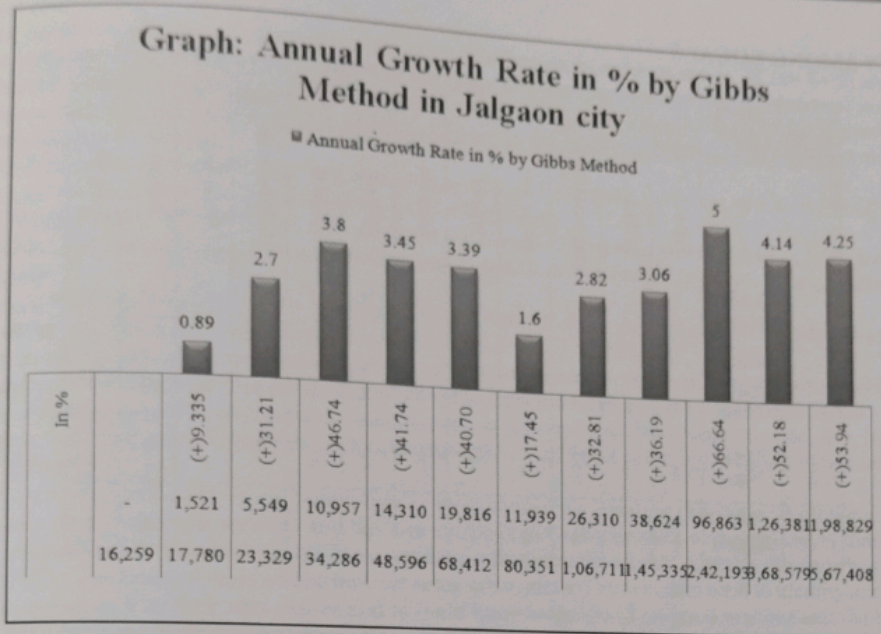
- To study physical and cultural setting of the region.
- To Study the Important of the Slum development.
- To understand Geoinformatics as a tool for inclusive urban development especially for the slum development.
- To explore the application of Geoinformatics to slum development in Jalgaon city.

RESEARCH METHODOLOGY

- The present study is based on a sample survey of households in the context of a slum area in Jalgaon City.
- Data Collection and Sample Survey.
- Preparation of socio Economic Survey datasheet.
- Field Survey of Bishop House.
- Field Survey of: Kanchan nagar , Old Jalgaon , Aasoda Road , Shree Krishna Nagar , Jainabad, Mehrun, Doodh Federation, Shivaji nagar.
- Digitization of Data in GIS Software and Thematic Map generation.
- Slum Development Strategy and Management.
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PROJECTED POPULATION OF JALGAON CITY

Sr. No.	Year	Total Population	Absolute Growth	Growth In %	Annual Growth Rate in % by Gibbs Method
1	1901	16,259	-	-	-
2	1911	17,780	1,521	(+)9.335	0.89
3	1921	23,329	5,549	(+)31.21	2.70
4	1931	34,286	10,957	(+)46.74	3.80
5	1941	48,596	14,310	(+)41.74	3.45
6	1951	68,412	19,816	(+)40.70	3.39
7	1961	80,351	11,939	(+)17.45	1.60
8	1971	1,06,711	26,310	(+)32.81	2.82
9	1981	1,45,335	38,624	(+)36.19	3.06
10	1991	2,42,193	96,863	(+)66.64	5.00
11	2001	3,68,579	1,26,381	(+)52.18	4.14
12	2011	5,67,408	1,98,829	(+)53.94	4.25



Graph: Annual Growth Rate in % by Gibbs Method in Jalgaon city

POPULATION GROWTH 2001 & 2011

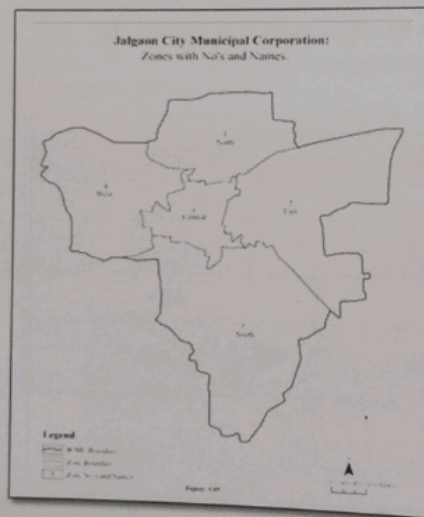
JALGAON CITY	2011	2001
Population Growth	14,86%	15,53%
Area Sq.km	11,765	11,765
Density Km ²	360	313
Proportion to Maharashtra Population	3.76%	3.80%

LIVING YEAR AT LOCALITY OF JALGAON CITY -

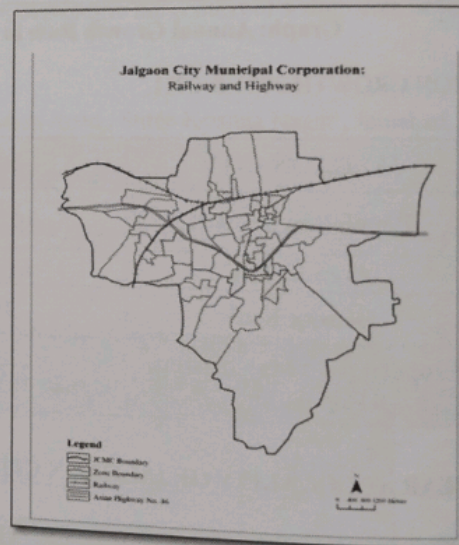
Sr. No.	Study Area	< 10 Years	11- 20 Years	21- 30 Years	31-40 Years	41-50 Years
1	Old Jalgaon	5	5	2	4	3
2	Khanchan Nagar	6	8	16	5	1
3	Shree Krishna Nagar	0	1	3	10	2
4	Aasoda Nagar	1	5	4	7	0

LITERACY AMONG LOCALS

Sr.No	Study Area	Male					Female						
		above	SSLC	Matriculation	8th or less	school	Literate	above	SSLC	Matriculation	8th or less	School	Literate
1	Kanchan Nagar	6	4	12	7	2	5	2	1	7	10	3	12
2	Shree Krushna Nagar	1	0	7	6	0	2	2	0	4	6	0	4
3	Asoda Nagar	2	2	7	2	3	0	0	0	3	7	3	3
4	Old Jalgaon	1	2	8	3	1	4	0	2	4	4	2	7



(A)



(B)

CONCLUSION

1. Incidence of communicable diseases are recorded 90.00 percent in households whose location of drinking water is away, followed by 88.22 and 80.01 percent in near premises and within premises respectively.
2. The incidence of communicable diseases in kuccha house (89.10%) is more than pukka and semi-pucca type of house.
3. The incidence of communicable diseases (malaria, typhoid etc.) is recorded high i.e. 88.92 percent in those households having no drainage system.
4. The incidence of communicable diseases such as conjunctivitis etc. is slightly less (77.46%) in households having separate room for kitchen than households having no separate kitchen (88.05%) or cooking in open place (89.15%).
5. The incidence of communicable diseases houses in slum locality is slightly higher (86.43%) than houses in non slum locality (79.04%).
6. The number of graduates (82.76%) and higher educated (92.59%) household heads recorded higher in non slum



- than slum locality.
7. The incidence of communicable diseases such as diarrhea/gastroenteritis etc. in ST (88.84%) and other (87.76%) category are slightly more than remaining category households, whereas the incidence of non-communicable diseases such as hyper tension, heart attack etc. in Open (20.50%) category is recorded highest.
 8. Data reveals that only male household heads (38.60%) are habituated who either chew pan masala or tobacco, drink alcohol or smoke.
 9. The incidence of communicable diseases such as diarrhea/gastroenteritis etc. are high (88.38%) in households they do not use any kind of purification for drinking water.
 10. Data shows that 420 (87.50%) deliveries are conducted in hospitals and about 60 (12.50) are home deliveries.
 11. Highest 55.17 percent of government/municipal hospitals deliveries are recorded from household heads have no income.
 12. People from slum locality go for treatment in government/municipal hospitals is recorded highest (62.04%).
 13. Number of death from slum locality recorded highest i.e. 63.83 percent.
 14. The incidence rate of communicable diseases such as common cold, diarrhea/gastroenteritis, malaria, conjunctivitis, scabies, tuberculosis etc. are concentrated in Very High and High category in slum localities.
 15. The incidence rate of non-communicable diseases such as anemia, obesity, diabetes mellitus, hyper tension, heart attack, teeth and gum diseases etc. are concentrated in Very High and High category in non slum localities.

SUGGESTIONS

It is well known that half of the world population lives in urban areas – and the proportion is growing. Cities suffer from disproportionately provided health services and these inequities can be traced back to differences in their social and living conditions. Unplanned rapid urbanization can have negative consequences on urban health. Some urban health threats are well known and other remaining threats will be new for some urban areas. Local bodies need to identify and better understand the main challenges as well as their root causes and to build knowledge based on good practice and the best scientific data available in order to address them.

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