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Quality of Life of People in Urban Slums in Indian States

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Abstract: ***Urbanization leads to creation of more slums with poor sanitation, households in unhygienic condition especially in the developing countries. Census 2011 slum data of all the states and union territories of India are considered and only secondary data is considered for analysis. Nearly fifty percent of states and union territories are in poor condition regarding the quality of life of people living in slum. Awareness creation among people living in urban slums with the help of NGOs and health personal and educate people to adopt personnel hygiene and sanitation is an urgent need along with provision of safe drinking water, toilet facilities and drainage facilities. And this will improve the life of people living in slums.***
Keywords: Urbanization, slum, Quality of life, composite score, healthy environment.

I. INTRODUCTION

The development of industrialization leads to urbanization in the modern world. People moving from rural to urban areas for employment which resulted in overcrowding pollution due to lack of basic essential services like clean water and sanitation [1].
According to Census 2001, Slum is a compact area of about 60-70 households with at least 300 people living in unhygienic environment, inadequate infrastructure and lack of basic services such as sanitation and safe drinking water facilities[2]. According to reports,30 percent of population is residing in urban areas and it is expected to reach 40 percent by 2050[3]. The condition of slums is worst in developing countries compared with developed countries and the human development is highly correlated with quality of life[4]. Though the government of India has taken several steps to improve the life of people living in urban slums, the real situation of quality of life of people living in urban slums is very poor.
This paper aims to determine the quality of life in slums of all states and union territories of India and to suggest suitable measures for improving the development of quality of life of people living in urban slums.

II. OBJECTIVES

The objectives of this study are the following:

A. To determine the quality of life of people living in slums in different states of India,
B. To suggest suitable measures to improve the quality of life.

III. METHODOLOGY

The present study is based on secondary data collected from Census 2011 report of the government of India. The urban data elated to the slum of all the states and union territories of India constitute the basis for analysis. Quality of life in urban slums is measured using Composite Index and Standard Deviation techniques [5], [6]. Composite index will be based on Quality of life variables, namely, total literacy, female literacy, fuel for cooking, drinking water facility, drainage facility, source of lighting, toilet facility, type of house, and work participation. Composite scores of all the variables will be aggregated and mean and Standard deviation will be worked out using comparative analysis, the values are grouped to identify quality of life of people living in urban slums in different states and union territories of India.
The percent distribution of the parameters of quality of life of the people in urban slums are described and presented in Table 1.

A. Source of lighting (X1)

Source of lighting is considered as a variable of quality of life of people living in urban slums. Regarding source of lighting, a majority of 90.5 percent of households in slums used electricity and the rest8.2 percent used kerosene as a source of lighting.

B. Fuel used for cooking (X2)

Regarding this measurement of quality of life, cooking LPG (51 percent) is used by the majority of household. Kerosene (14

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percent), firewood (26 percent) and Kerosene (14 percent) are others fuels used for cooking.

C. Source of drinking water (X3)

One of the basic needs of life is Safe and pure drinking water. Regarding source of drinking water,65 percent of residents of slum households use tap water from treated source, 13 percent of households use water from hand pump and 13 percent of households use tap water from untreated sources for drinking.

D. Housing condition (X4)

Most of the households of people living in urban slums live in lack of adequate housing and most of the structures are in worst condition. But in India the condition of houses in urban slums is improved. Out of total households, 8 percent of households are of kachcha households, 56 percent of households are semi pucca and 36 percent of households are pucca households.

E. Drainage facility (X5)

Drainage facility is important for healthy living and to ensure non polluted environment. Regarding drainage facility in the slum areas, 37 percent of slum areas have open drainage facility, 44 percent of areas have closed drainage facility and 19 percent of slum areas have no drainage facility.

F. Toilet facility (X6)

Regarding availability of toilet facility, government has taken various steps by providing cash assistance to built toilet facility in every household. In the slum areas, a majority of 66 percent of households has toilet facility within premises and 15 percent have no toilet facility but using public toilets.

Table 1: Parameters of quality of life in urban slums

Parameters(Census 2011)	Percent
Lighting	
Electricity	90.5
Kerosene	8.2
Fuelfor cooking	
Firewood	25.8
Cropresidue	1.6
Cowdung cake	2.1
Charcoal	3.9
Kerosene	14.0
LPG	51.3
Electric	0.1
Biogas	0.5
Anyother	0.3
Nocooking	0.5
Drinking water facility	
Tapwater from treated source	65.3
Tapwater from untreated source	8.7
Coveredwell	0.8
Uncoveredwell	2.3
Handpump	12.7
Tubewell	7.6
Sping	0.2
River	0.2
Pond	0.4

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Others	2.0
Housing condition	
Kachcha	8.0
Semipucca	55.9
Pucca	36.1
Drainagefacility	
Closeddrainage	36.9
Opendrainage	44.3
Nodrainage	18.8
Toiletfacility	
Latrine within premises	66.0
Nolatrine but public	15.1
Literacy rate	
Male	77.7
Female	71.2
Workparticipation rate	
Workparticipation	39.8
Non work participation	60.2

G. Literacy (X7)

The most important indicator responsible for socio-economic and quality of life of people is education. The literacy rate is 74.5 percent, the male literacy stands at 77.7 and the female literacy is 71.2 and the remaining are illiterates.

H. Female Literacy (X8)

Female literacy is an important indicator to measure the status of women in society. The female literacy is 71.2 percent among women living in urban slums in India.

I. Work participation rate (X9)

The work participation rate of people living in urban slums is 39.8 percent and the non work participation rate is 60.2 percent.

J. Levels of quality of life

Quality of life of urban slums is determined by using the analysis of 9 quality of life data variables explained above. The scores given for the variables based on weightage are given in Table 2.

Table 2: Variable Scores

Variables	Scores	Variables	Scores
Lighting		Housing condition	
Electricity	2	Pucca	3
Kerosene	1	Semi pucca	2
Fuel for cooking		Kachcha	1
LPG	5	Drainage facility	
Biogas	5	Closed drainage	2
Electric	4	Open drainage	1
Kerosene	3	Toilet facility	
Charcoal	2	Latrine within premises	2
Firewood	1	No latrine but public	1
Crop residue	1	Literacy rate	

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Cow dung cake	1	Literate	2
Drinking water facility		Illiterate	1
Tap water from treated source	3	Work participation rate	
Hand pump	2	Work participation	2
Tap water from untreated source	1	Non work participation	1

The composite scores are calculated for each parameter and for each state as given below:
For Tamil nadu, the percent of source of lighting: Electricity: 93.4, Kerosene: 5.9 and the variable score for Electricity: 2 and for Kerosene: 1. The composite score is calculated as 93.5/100*2+5.9/100*1 = 1.93.
So the composite score for source of lighting for Tamil nadu is 1.93. The index calculated for9 variables and the composite score has been calculated for all the variables for all the states and union territories separately and is presented in Table 3.

Table 3: Composite scores of slums for States.

Sl. No	States	source of lighting	fuel for cooking	drinking water	type of house	drainage facility	toilet facility	Literacy	female literacy	work partici pation	Composite score _Total	Standar dized	
1	Himachal	1.95	4.26	2.85	2.71	1.47	1.76	1.88	1.85	1.52	20.25	1.916	Good
2	Sikkim	1.99	4.66	2.36	2.47	1.30	1.88	1.88	1.84	1.51	19.90	1.694	
3	Mizoram	1.98	4.74	1.82	2.15	1.09	1.99	1.98	1.98	1.44	19.18	1.247	
4	Goa	1.97	4.08	2.85	2.13	1.47	1.54	1.82	1.76	1.40	19.01	1.142	
5	Uttarkand	1.93	3.83	2.56	2.44	1.24	1.86	1.77	1.71	1.38	18.71	0.956	Medium
6	Panjab	1.95	3.91	2.26	2.51	1.39	1.78	1.74	1.69	1.36	18.60	0.886	
7	Maharashtra	1.93	3.84	2.71	2.21	1.50	1.32	1.85	1.79	1.44	18.58	0.876	
8	Andhra Pradesh	1.96	3.67	2.51	2.48	1.31	1.68	1.75	1.69	1.47	18.51	0.831	
9	Andaman*	1.98	3.86	2.88	2.13	1.03	1.52	1.83	1.77	1.40	18.39	0.757	
10	Puducherry*	1.97	3.93	2.81	2.32	0.95	1.38	1.81	1.76	1.36	18.29	0.695	
11	New Delhi*	1.97	4.09	2.42	2.15	1.43	1.38	1.75	1.69	1.33	18.20	0.636	
12	Haryana	1.90	3.62	2.24	2.27	1.29	1.63	1.76	1.68	1.35	17.74	0.351	
13	Tamil Nadu	1.93	3.58	2.31	2.31	1.13	1.38	1.82	1.76	1.46	17.68	0.310	
14	Meghalaya	1.95	3.43	1.91	2.28	1.01	1.89	1.89	1.87	1.40	17.63	0.282	
15	Jammu and	1.96	3.77	2.26	2.06	1.08	1.79	1.68	1.60	1.35	17.55	0.231	
16	Kerala	1.96	3.22	1.66	2.45	0.94	1.90	1.93	1.91	1.35	17.31	0.085	
17	Rajasthan	1.87	3.22	2.50	2.07	1.10	1.45	1.70	1.59	1.44	16.94	-0.148	Poor
18	West Bengal	1.82	3.01	2.11	2.36	0.94	1.71	1.81	1.77	1.38	16.91	-0.165	
19	Gujarat	1.90	2.78	2.44	2.21	1.23	1.43	1.71	1.61	1.41	16.71	-0.292	
20	Karnataka	1.92	2.81	2.23	2.24	1.19	1.38	1.76	1.69	1.46	16.67	-0.315	
21	Uttar Pradesh	1.76	3.24	2.07	2.13	1.14	1.59	1.69	1.62	1.38	16.61	-0.352	
22	Madhya	1.89	3.01	1.91	2.24	0.99	1.31	1.77	1.70	1.44	16.26	-0.573	
23	Thiruppura	1.91	2.45	1.98	2.03	0.51	1.93	1.91	1.88	1.40	16.00	-0.733	
24	Assam	1.74	3.23	1.55	2.03	0.62	1.76	1.82	1.76	1.38	15.90	-0.800	
25	Nagaland	1.98	3.18	0.53	2.09	0.90	1.92	1.89	1.87	1.49	15.84	-0.835	
26	Chhattisgarh	1.92	2.48	1.89	2.23	0.77	1.07	1.80	1.72	1.48	15.35	-1.137	Very Poor
27	Chandigarh*	1.85	2.83	2.48	1.85	0.88	0.85	1.66	1.54	1.38	15.33	-1.155	
28	Arunachal	1.86	3.21	1.54	1.66	0.42	1.70	1.69	1.62	1.43	15.13	-1.277	
29	Jharkhand	1.76	2.63	1.52	2.28	0.70	1.11	1.76	1.68	1.40	14.84	-1.460	

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30	Bihar	1.54	2.36	1.82	2.14	0.78	1.11	1.68	1.61	1.33	14.37	-1.750
31	Oddisha	1.73	2.43	1.43	2.06	0.55	1.00	1.79	1.72	1.42	14.13	-1.901
	India	1.89	3.38	2.30	2.28	1.18	1.47	1.78	1.71	1.40	17.40	
									Total		532.53	

The total scores obtained by summing up of all the calculated scores. The mean value of composite score is 17.18 with standard deviation = 1.6046. Using the mean and standard deviation scores, the standardized scores are calculated for each state. The levels of quality of life are grouped and categorized in Table-3.

Table 3: Levels of Quality of Life in Slums of States.

Levels of Quality of Life	Statistical Value	Composite Score	Name of States
Good	to +2	19.01 – 20.25	Himachal Pradesh, Sikkim, Mizoram, Goa
Medium	to +	17.31 – 18.71	Uttarkand, Panjab, Maharashtra, Andhra Pradesh, Andaman, Puducherry, New Delhi, Haryana, Tamil Nadu, Kerala, Jammu and Kashmir, Meghalaya
Poor	to -	15.84 – 16.94	Rajasthan, West Bengal, Gujarat, Karnataka, Uttar Pradesh, Madhya Pradesh, Thiruppura, Assam, Nagaland
Very Poor	to -2	14.13 – 15.35	Chattisgarh, Chandigarh, Arunachal Pradesh, Jharkand, Bihar, Oddisha

Four levels of quality of life were identified, namely, Good, Medium, Poor and Very poor. The slums in Himachal Pradesh, Sikkim, Mizoram and Goa enjoy good quality of life and the condition of slum dwellers is better than in other states of India. The slums in Uttarkand, Panjab, Maharashtra, Andhra Pradesh, Andaman & Nicobar, Puducherry, New Delhi, Haryana, Tamil Nadu, Kerala, Jammu & Kashmir and Meghalayahave medium level of quality of life and the conditions of these slums are better thanslums in states like Chattisgarh, Chandigarh, Arunachal Pradesh, Jharkand, Biharand Oddisha where the quality of life of slum dwellers are very poor.

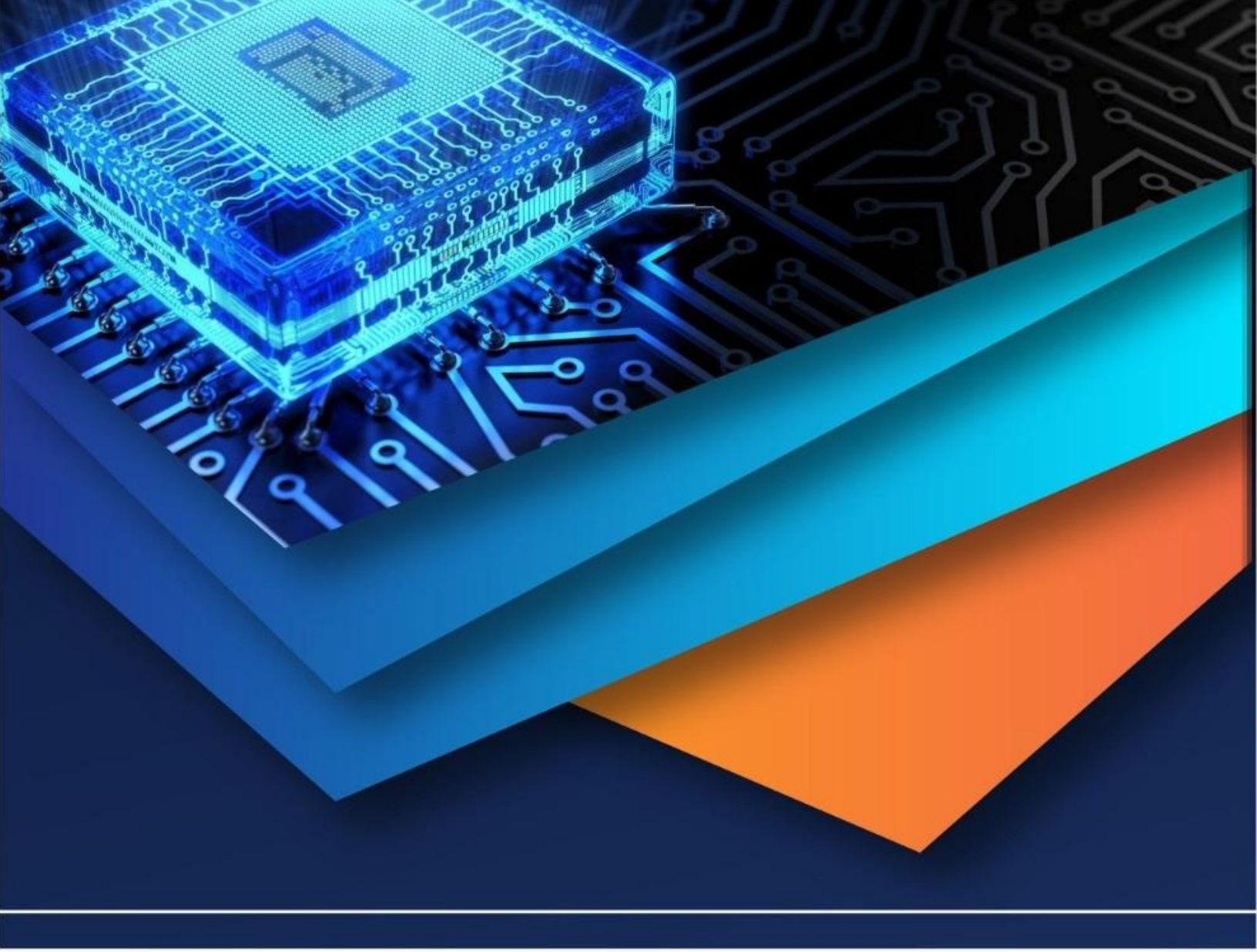
IV. CONCLUSION

Though government of India has implemented several measures for the improvement of urban slums in India, there exist interstate disparities regarding quality of life of people living in urban slums. Analysis revealed that the quality of life of people living in urban slums in Chhattisgarh, Chandigarh, Arunachal Pradesh, Jharkand, Bihar and Oddishais very poor and poor in 9 states compared with other states and union territories. The measures appropriated in the states of slums with good quality of life such as Himachal Pradesh, Sikkim, Mizoram, Goa may be adopted. Monitoring of slums related development programs and implementation of sanitation programs like drainage facility, toilet facility and provision of safe drinking water facility along with adequate infrastructure is an immediate measure to be taken by the government in the states of poor and very poor states. With the support and involvement of NGOs and health personal, people living in urban slums may be given awareness and educate them to practice good sanitation, personal hygiene and adopt clean and healthy environment.

REFERENCES

[1] UNFPA (2007): Linking Population, Poverty and Development, http://www.unfpa.org/ pds/urbanisation.htm
[2] Census of India, 2001 (Series 1): Slum Population 640 Cities and Towns Reporting Slums, Vol.1, Published Registrar general and Census Commissioner, India, New Delhi.
[3] Census of India, 2011, RGI, Government of India.
[4] O. P. Singh, (2009): Philosophy of Development, Quality of Life and Philosophical Geography, Journal of Regional Science and Development, 4-5, No. 1-2,June-December 2004-05, The Himalayan Geographical Association, Nainital.
[5] R.L. Singh, and Singh, P.B. Rana (1979): "Spatial Planning in Indian Perspective", N.G.S.I. Research Bulletin.
[6] Darshan Kumar Jha and V. K. Tripathi (2014): "Quality of Life in Slums of Varanasi City: A Comparative Study; Varanasi, UP", Transactions . 36, No. 2, pages: 171- 183.

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