

QUALITY OF LIFE OF SLUM DWELLERS: A CASE STUDY OF NEW GANDHI NAGAR, BELAGAVI CITY

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Abstract

Slums are common features of urban areas. It is known fact that industrialization and migration are the main reasons for the growth of slums. These sub standard areas, where the poorest of the poor people are living are hazardous not only for slum dwellers but also for other civilians of urban centers. The quality of life of slum dwellers is thus a grave matter of concern for administrators and planners etc. In Belagavi city, there are 58 municipal wards. Among these, 51 slums are located in 30 wards and these are divided as notified and non-notified slums. There are 32 notified and 19 Non-notified slums. Population of both slums is 57214 and number of households in slums is 12082. Total population of the Belagavi city is 4,90,045 and the percentage of the slum population is 11.67%. In the study region slums are named as "Kolageri". New Gandhi nagar slum which is in Ward number 50 is having highest population of 8173. This is very old slum in the city and is located at center of the city along the NH4 and Railway line. In this slum, houses are very congested. People are having least number of basic amenities and enjoying low quality of life. In the present study an attempt is made to know the quality of life of slum dwellers. To know the quality of life of slum dwellers composite index method has been used. Total 73 respondents have been chosen for primary survey to know the quality of life of respondents and total 14 variables are employed in composite index on the basis of composite score Quality of life is decided.

Key words: Slum Dwellers, Quality of Life, Weightage value, Variable, Composite Index.

Introduction

The urban population has grown rapidly during the 20th century, but the growth of the cities in India has been largely unplanned and haphazard. This can be seen from the fact that one-fifth of the of the total urban population lives in slum or squatter settlements. The slum population of most of the cities in India is estimated at 20-30 per cent of the total urban population (Shinha,1985). Cities and towns in India are equally afflicted by the problems of slums and squatter settlements where substantial segments of urban population manage to live even without basic services and amenities of late, there is found to be a positive response to solve this human problem. Besides the central scheme of 'environmental improvement various other schemes and programmes have been initiated in our cities and towns for improving the quality of life in the slum (IIPA,1979).

Slums exist in all towns and owing to insufficient housing facilities. They are mostly occupied by poorest class of society and new coming migrants. These are the areas of high incidence of crime, mortality, illiteracy and disease (Saviramath,2013). The presence of a slum as a part of urban habitat refers to a condition of defective physical, social and economic environment. It means physically poor quality sub-standard housing characterize slum areas which pose danger of health and life of degenerated living "an abode of half starved, a place of poverty, wretchedness and vice, the house of racketeers and criminal" and so on. Slum emerges with in relatively big urban centers and always tends to grow and multiply.

Study Area

Belagavi city is located at $15^{\circ} 52'12''\text{N}$ and $74^{\circ} 5'\text{E}$. The city is situated in the north-western part of Karnataka and lies at the border of two states, namely Maharashtra and Goa on the western part (50 km from Goa state border). It is one of the oldest cities in the state, lying at a distance of 502 km from Bangalore, 515 km from Hyderabad and 500 km from Mumbai. Situated near the foothills of the Sahyadri mountain range (Western Ghats) at an altitude of about 779m, 100 km from the Arabian Sea with the river Markandeya flowing nearby, Belagavi exhibits swift and kaleidoscopic changes in topography, vegetation and climate. (Fig.1)

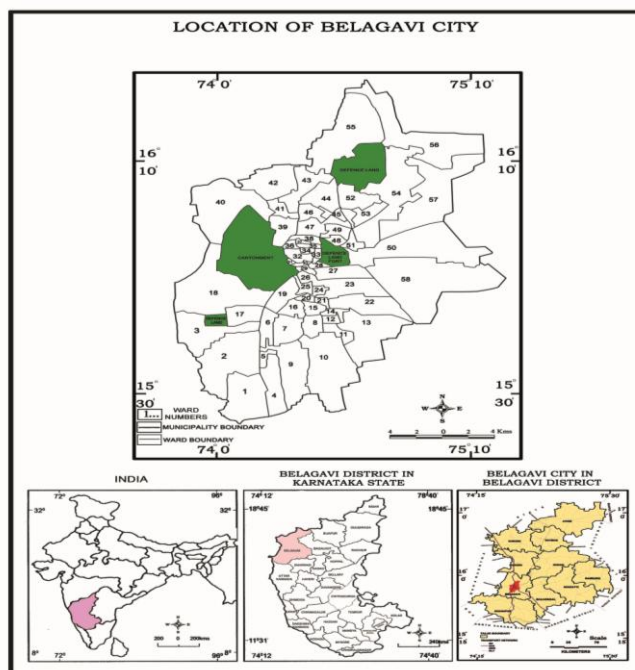


Figure 1. Location map

Objectives

Main Objectives of the present study are To evaluate the quality of life and living of slum dwellers in New Gandhi nagar slum. To identify the levels and focus the low level of quality of life. To suggest measures for improving the quality of life of the slum dwellers.

Database and Methodology

Both Primary and Secondary data have made use of in the present study. Questionnaire based survey method has been used for 73 respondents to find out the Quality of life of slum dwellers in the study region. Secondary data is collected from Slum Clearance Board and Municipal Corporation of Belagavi city. To identify the levels of lifestyles of slum dwellers composite index technique is used. Fourteen parameters are chosen for this method. These variables assigned symbols as X^1 , X^2 etc. and proper weightage is given to each variable. Composite rankings of all variables are taken as X value. SD is computed for calculation of positive and negative deviation from X value. Levels in quality of life have been identified with the help of SD.

Slums in Belagavi City

Belagavi city is extended about 94sq.km. There are 58 municipal wards in Belagavi city. In these municipal wards, 51 slums are emerged which cover an area about 2.337sq.km. These slums are divided in two types as Notified (Declared) and Non-notified (Un-Declared) Slums. There are 32 Notified slums and 19 Non-notified slums. Total population of Belagavi city is 4.90 lakh and total slum population is 57,214 which accounts for 11.67% of total population of the city. Slum dwellers are living in an un-healthy environment and neglected area of the city because; they cannot afford houses in standard area. Thus, they are living in sub standard areas as these localities are nearer to their workplace. Further, land is available here either at low price or free of cost.

Ward Wise Distribution of Slums

A detailed view of the ward wise distribution of slums is given in the table 1. Although, there are 58 wards, slums are found in only 30 wards. Ward number 50 is having largest slum population which accounts for about 18.53% of total slum population. Ward no. 13 is having second highest population with 13.23% of total slum population. Although, ward no. 6 is having more number of slums, its population is low compared to ward number 50 and 13. Next to these slums Kasai galli in ward no. 33 accounts for 4.40% of slum population and Waddar galli Kasabag which is located in ward no 21 having population about 3.91%. While Zapat nagar accounts for 3.13% Nath pai nagar. 2.21% slums are found in Ward no. 5 these slums are having low population. In Belagavi city, lowest slum population is found in Ward no. 32 where Ganpath burud galli slum is located. It accounts for about 0.30% of slum population. The smallest slum Kanak das nagar Vadgaon is found in 13th ward which is having only 0.24% of slum population

In Belagavi city, some wards are having large area under slums. Particularly ward no 13 is having a large slum area which accounts for about 28.11% of the total area under slums in the city. Ward no.54, has 20.05% of area under slums. Ward no. 23 and 49 have 8.55% of area under slums. In ward no. 54, Rukmini Nagar (Ashrya colony) is the biggest slum with 19.25% of area. Apart from these wards, ward no.50 and 52 rank fourth and fifth in this respect. New Gandhi Nagar slum is located in ward no. 50 which covers an area of 4.45% and ward no. 52 Vantumuri Ashray Colony slum is covers an area of 4.27%. Lowest area under slums i.e 0.08% is found in ward no. 32, where is Ganpat Burud Galli (Behind Huns Talkies) slum.

As far as households of the slums are concerned, ward 50 is in the first place with 16.14% of total households of the slums in Belagavi city. New Gandhi nagar is in the second place with 12.15% of slum households. Laxmi nagar,Vadagaon which is in Ward no. 13 ranks third with 7.83% of slum households. Kanaka Das Nagar, Vadagaon slum accounts for least number of households with 0.23 % of households.

Quality of life

The quality of life is related to the shared environment in which people live. To evaluate this environment, the indicators which describe the environment with which people live and work are employed to measure the reality of the living environment (Chopra, 2006). The term quality of life can be explained as standard of living or socio-economic status of people living in the slum. For the present study variables like educational status, monthly income, housing and sanitation, size of the house and waste disposal, drinking water facilities etc. have been selected.(Table 1)

Features of New Gandhi nagar Slum

Ward number 50 is having largest slum population which accounts for about 18.53%. In ward no. 50, New Gandhi Nagar slum is located which covers an area of 4.45% and it accounts for 0.14% of slum population. As far as households of the slums are concerned, New Gandhi nagar slum is in the first place with 0.12% of total households of the slums in Belagavi city. New Gandhi nagar slum is originated near NH4 which connects Pune and Bengluru and a railway line is passing through this slum. This slum is developed on both sides of railway line and it is very old slum compared to all other slums. This is notified by Municipal Corporation of Belagavi city.

Table 1. Weightage value given to selected variables

Size of the Family		Nature of House	
Above-10	4	Pucca	4
8 to 10	3	Semi-pucca	3
5 to 7	2	Kuccha	2
Below 4	1	Thatched hut	1
Educational Status		TV / Radio	
Graduation	5	With disk	2
PUC	4	Without disk	1
Secondary	3	Ownership of vehicle	
Primary	2	Auto rickshaw/ Four wheeler	4
Illiterate	1	Two wheeler	3
Nature of the Family		Bicycle	2
Joint Family	2	Nil	1
Nuclear Family	1	Sanitary latrine	
Present Employment		Yes	2
Industrial Labourer	4	No	1
Self-Employed	3	Drinking water facility	
Construction Worker	2	Once in two days	2
No Job	1	Twice in a week	1
Status of House		Energy for cooking food	
Own House	2	LPG Gas	3
Rented House	1	Kerosene	2
Monthly rent of the house		Fire wood	1
Above Rs.1500	4	Expenditure on cloth every year	
Rs.1000-1500	3	Above 3000	4
Rs.500-1000	2	2000-3000	3
Below Rs.500	1	1000-2000	2
		Below 1000	1

Family Income per Annum		
Above Rs.50,000	5	Very good
Rs.45000	4	Good
Rs.35000	3	Fair
Rs.25000	2	Poor
Below Rs.15,000	1	Very Poor

Source: Authors' Computation

Parameters of Quality of life

To find out the present quality of life of slum dwellers, 14 parameters have been selected after careful analysis. These parameters cover all aspects such as economic, social and cultural standards. Each parameter has been assigned the symbol as X^1 X^2 etc.

Size of the Family

The size of the family is shown by variable X^1 and it shows that some families are having below 4 members and some are above 10 members. 49% of the families are having 5 to 7 members and 36% are having 8 to 10 members, 10% of the families have less than four members and 5% families are having above 10 members. However, in families with 10 members, people are living in different rooms in the same house separately. These families are living in both rented and own houses. (Table 2 & Fig.2)

Educational Status

Educational status of slum dwellers in the study region has been shown by X^2 variable. Most of slum people are illiterate and only having primary level education. Both of these categories account for about 30.12%. While, 26.12% of the respondents have secondary education i.e from 6th to 10th standard. (Table.3&Fig.3) Percentage of people who have completed PUC level education is only 10.95%. Very few people have got Graduation level education. Their percentage is only 2.72.

Table 2. Size of the Family

	Below 4	5 to 7	8 to 10	Above-10	Total
No of Respondents	7	36	26	4	73
Percentage	9.58	49.31	35.61	5.47	100%

Source: Authors' Computation

Table 3: Educational Status

	Illiterate	Primary	Secondary	PUC	Graduation	Total
No of Respondents	22	22	19	8	2	73
Percentage	30.12	30.12	26.12	10.92	2.72	100%

Source: Authors' Computation

Table 4. Nature of the Family

	Joint Family	Nuclear Family	Total
No of Respondents	15	58	73
Percentage	20.54	79.45	100%

Source: Authors' Computation

Table 5. Present Employment

	No Job	Construction Work	Industrial Labourer	Self-Employed	Total
No of Respondents	5	13	6	49	73
Percentage	6.84	17.80	8.21	67.12	100%

Status of House

Variable X^5 shows the status of house where the slum dwellers are living. Respondents are residing in both own houses and rented houses (Table 6). It is interesting to know that, 50.68% of people are living in their own houses and 49.31% are staying in rented houses in the study region. People who are living in their own houses had been settled in the slums since from long period. Thus, they could get a piece of land in the slums.

Table 6. Status of House

	Own House	Rented House	Total
No of Respondents	37	36	73
Percentage	50.68	49.31	100

Source: Authors' Computation

Nature of the Family

To show nature of the family X^3 variable has been used. It is common observation that both joint and nuclear families are found in the slums. 79.45% are nuclear families remaining 20.54% are joint families. Although, people of joint families are living in one house but they have separate rooms or hearths within the house (Table 4&Fig.4).

Present Employment

Present employment is shown by X^4 variable. Most of the people are self employed. In other words they are working as rickshaw drivers, vegetable vendors, small road side shop owners etc. 67.12% of the respondents are self employed. 17.80% of them are working as construction labourers. A few people are working in small industries and their percentage is 8.21%. Apart from this 6.84% of the respondents are working nowhere. Among these some are age old people and not able to do any job (Table 5&Fig.5).

Monthly rent of the house

This parameter has been shown by the X^6 . Here, the rent value ranges between 500 to more than 1500 rupees. Families with high income are staying in bigger houses. Thus, they are paying a rent up to Rs 1500. However, people living in kuccha houses pay the rent between 500 to 1000 rupees. Out of 73 families 37 have their own houses. Remaining 36 families are living in rented houses. Among them 19 families pay rent more than Rs. 1500 per month, while 5 families are paying 1000 to 1500 rupees and 11 families are paying 500 to 1000 rupees per month. Only one family is paying less than Rs 500 rent in this slum (Table 7).

Table 7: Monthly rent of the house

	>Rs.500	Rs.500-1000	Rs.1000-1500	< Rs.1500	Total
No of Respondents	1	11	5	19	36
Percentage	2.77	30.55	13.88	52.77	100

Source: Authors' Computation

Nature of House

Variable X^7 shows nature of house. In new Gandhi nagar, all types of houses such as pucca, semi pucca, kuccha and thatched huts are found. All together 36.98% of the houses are pucca houses. These houses have a room, kitchen and small hall. Many of them have slab

roofs. While 41.09% of the houses are of semi pucca houses. Semi pucca houses are mainly built by bricks and tiles. 16.43% of houses are kuccha houses. They are covered with low grade cement sheet. Materials used for roof is also not of good quality (Table 8&Fig.6). Thatched huts are not permanent houses; the people living in these houses are shifting here and there. These huts are covered with cloths, cement sheet or plain metal sheet. 5.47% of the houses found in this slum are of this type.

Table 8. Nature of House

	Pucca	Semi-pucca	Kuccha	Thatched hut	Total
No of Respondents	27	30	12	4	73
Percentage	36.98	41.09	16.43	5.47	100%

Source: Authors' Computation

Table 9: Recreational facilities: TV with or without disk

	Mobile		TV		Total
	Yes	No	With disk	Without disk	
No of Respondents	71	2	57	16	73
Percentage	97.26	2.73	78.08	21.91	100%

Recreational facilities: TV with or without disk

Variable X⁸ has been used to show the recreational facilities like TV and Mobile. Almost all families are having both TV and Mobile. Very few Families are not having TV in their home but they have Mobile. 97.26% of people are having both TV and Mobiles. Remaining 2.73% of people are having only mobiles and they are not having TV in their home. Out of 73 families 78.08% of families are having TVs with disk and 21.91% are watching TV without disk (Table 9).

Table 10: Ownership of vehicle

	Bicycle	Two wheeler	Auto rickshaw/ Four wheeler	Nil	Total
No of Respondents	11	33	14	15	73
Percentage	15.06	45.20	19.17	20.54	100%

Ownership of vehicle

This variable is shown by X⁹. In present study, 45.20% of the slum dwellers are having two wheelers and around 19.17% of them are having four wheelers and some other people who are self employed have their own auto rickshaws. People with low income are not having any vehicle. They have only bicycle in their houses as they are earning very low income and their percentage is 15.06. Very poor people are not having any vehicles in their houses. Thus, they simply walk to their work places or use Government or private transport. 20.54% of peoples belong to this category (Table 10&Fig.8).

Sanitary latrine

This variable is shown by X¹⁰. In the region, thanks to Government schemes, almost all people are using toilets. There are both public and private toilets, 94.52% of people are

using toilets. People with own houses are using their own toilets. But people who are in rented houses are using either common toilets or public toilets. Only 5.47% of people do not have toilet facility in their house so they are using public toilets.

Drinking water facility

Drinking water facility is shown by variable X^{11} . As far as to drinking water facility is concerned it is quite good in this area. But in summer season scarcity water is the main problem. Municipal Corporation of Belagavi city is providing water to the slum. 76.71% of people told that they are getting water twice in a week. Remaining 23.28% of people told that they are getting water once in two days. (Table 11&Fig.10)

Energy for cooking food

Variable X^{12} shows the energy for cooking food in the slum. Most of the people in the slum are dependent on the LPG because of the non-availability of fire wood and kerosene. 90.14% of people are using LPG for cooking food. Only 5.47% of people are using kerosene which is given by Government shops. Very least number of people i.e 4.10% of people are using fire wood. (Table 12&Fig.11)

Table 11: Drinking water facility

	Once in two days	Twice in a week	Total
No of Respondents	17	56	73
Percentage	23.28	76.71	100%

Table 12: Energy for cooking food

	Fire wood	Kerosene	LPG Gas	Total
No of Respondents	3	4	66	73
Percentage	4.10	5.47	90.41	100%

Source: Authors' Computation

Annual Expenditure on cloth

Expenditure on cloth every year is shown by the variable X^{13} . In this slum both lower middle class and poor people are living. However, their income and status are different. Thus, they are spending money for buying cloth per year which is directly dependent on their income. 46.57% of people are spending above 3 thousand rupees for buying cloth every year and 12.32% of people are spending 2000 to 3000 rupees. 24.65% Poor people are spending 1000-2000 rupees and very poor people i.e 16.43% of the respondents are spending less than Rs 1000 for buying cloth, one of the basic necessities of man. (Table 13&Fig.12)

Annual Income of Family

Variable X^{14} Shows income of the family per annum. In the slum many people are self employed. However, they earning very low income and very least number people are in Government job or working in industries. Most of them are daily wages labourers and they are earning getting very low wages. 5.47% of the people are earning above Rs 50,000 per annum and 8.24% of the dwellers are earning Rs 45,000 per annum (Table 14&Fig.13). Some construction workers, vegetable vendors etc. whose percentage is 15.06 earning Rs

35,000 and 26.02% of the dwellers are earning Rs 25,000 per annum. 45.20% of the respondents are earning below Rs 15,000 per annum, they form the group of very poor people. Thus, percentage of poor people is very high in the study area.

Table 13. Annual Expenditure on cloth

	<1000	1000-2000	2000-3000	>3000	Total
No of Respondents	12	18	9	34	73
Percentage	16.43	24.65	12.32	46.57	100%

Table 14. Annual Income of Family

	>Rs.15,000	Rs.25000	Rs.35000	Rs.45000	< Rs.50,000	Total
No of Respondents	33	19	11	6	4	73
Percentage	45.20	26.02	15.06	8.24	5.47	100%

Level of quality of life

To find out different levels in quality of life of the slum dwellers quantitative analysis has been done. Where aggregates of all the variables have been taken and composite score has been derived by adding up the total of all the variables. Thereafter, \bar{x} value or mean value of composite scale is calculated. Composite scores of 73 families come to 2138 and the mean value is 29.28 deviations from the mean value of each family have been taken. This gives both positive and negative deviations (Table 15).

To find SD value $SD = \frac{\sqrt{\sum x - \bar{x}^2}}{N}$ formula is applied.

The square value gives a total of 884.35 The SD value is 3.47. The SD value is tested and the levels of quality of life under deviation are grouped and four level of quality of life have been achieved. They are as follows.

Table 16. Level of quality of life

Level	S.D. Value	Total No. of Families	No of Families
High	32.72 36.19	14	4,10,14,18,22,26,27,28,31,33,62,63,66,69
Moderate	29.28 32.72	24	3,5,6,8,11,15,16,17,19,20,21,23,25,29,30,32,38,39,52,65,68,70,71,73
Low	25.81 29.28	26	1,2,7,9,13,34,35,36,41,42,43,44,45,46,47,48,50,54,55,57,58,59,60,64,67,72
Very low	22.34 25.81	9	12,24,37,40,49,51,53,56,61

High level

Out of total 73 families only 14 families are enjoying high quality of life. These families have pucca houses, drinking water facilities, good sanitary, compared to other families of the slum. With high income these families are able to buy two or three wheelers and spending more on buying cloth etc. Majority of these families are nucleated families. Literacy rate of these families is also high.

Moderate Level

24 families are enjoying moderate quality of life. Statistical value for these families ranges between SD 29.28-34.65. These families also have better standard of living compared to the other low level families. They live in Pucca, Semi pucca houses and these people are also have facilities like TV with disk, two wheelers etc. Average, income of these families ranges between Rs.35000 to 45000. Large number of families is found in this group with higher SD value. It is mainly because most of the slum people have facilities like Mobile and Toilets etc.

Low Level

The highest number of families' i.e 26 is found in this category whose statistical value is between SD 25.81-29.28. These families have low level of quality of life. Most of the family members are illiterates and doing petty jobs. These people don't have even basic necessities of life and live in kuchcha houses as their income is very low (Table 16).

Very Low Level

The families whose statistical value is between SD 22.34-25.81 are in this category. Altogether 9 families are in this category which indicates very poor quality of life. These are the true reflectors of quality of life found in the slums. Although, their earning is very low they spend much of it on liquor. These families have neither own houses nor vehicles of their own.

Conclusion

Slums are not only originating and developing in unhygienic places but also creating new filthy areas. Quality of life in the slums is very low as there is scarcity of even basic amenities. There is a tendency among slum dwellers to settle near work place to save energy, time and money. Uncontrolled migration towards the Belagavi city is leading to congestion, overcrowding and the problem of waste disposal. All these are not only polluting the city environment but also creating lot of health hazards. Along with slum people, other people are also affected by these hazards. Thus, there is an urgent need to improve the condition of slums by strict enforcement of rules and regulations. If new employment opportunities are created in rural areas migration can be reduced. By educating the slum dwellers particularly women, quality of life can be improved. Although, it is impossible to remove slums completely, they can be protected from further deterioration by coordinated planning. In the study region, the slum clearance board is working for development of slums. Along with this addition of Belagavi city in the plan of Smart cities has given new lease to slum development programmes and rehabilitation of slums.

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