



Research Paper

Assessment of the Municipal Services – Micro Level Study on Konnagar Municipality, West Bengal India

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ABSTRACT; *Urbanization is a process of transformation from traditional rural land oriented economy to modern industrial one. Urban growth is the result of population explosion involving rural-urban and urban to urban migration. In fact urban growth is the consequence of not only urban pull but rural push also. Urbanization is taking place at a very fast pace in India. As per the census of 2011, out of the 121 core Indians, 83.3 core stay in rural areas while 37.7 core of the people live in urban areas. Number of Metropolitan cities in India in 2001 was 35, and in 2011 it was raise up to 53. According to an estimation given in UN State of the World Population Report, 2007, within the year 2030, 40.76% of country's population is expected to reside in urban areas. As per census of India (2011) there are 29 class I cities and urban agglomeration in west Bengal having population of more than 10lakh. As per World Bank Report on India, along with China, Indonesia, Nigeria, and the United States, will lead the world's urban population surge by 2050. As the urban population and their incomes increases, demand for every key service such as food, water, transportation, sewage, housing will increase five- to sevenfold in cities of every size and type. Governing of the city requires ideal growth and compact development. But unplanned urban development and haphazard expansion of cities create some problems. Due to unplanned urbanization, India is facing too much problem such as unemployment, Housing, scarcity of drinking water and food, power supply, high rates of pollution and crime, improper sanitation, decreasing standard of living in urban areas. Urban poverty alleviation is a burning issue now even under JNNURM project. Some policies have to be taken into consideration to minimize the impact of over urbanization without proper infrastructure. This endeavour addresses various complex urban issues and citizens response on the availability and accessibility of municipal services for a sustainable livelihood.*

KEYWORDS: URBAN GROWTH, LPG, INCLUSIVE GROWTH, URBAN GOVERNANCE, SUSTAINABILITY

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I. INTRODUCTION:

Developing countries like India is characterized by unplanned haphazard urbanisation, which has created problems regarding availability and supply of basic services among urban population and sometimes a section of population of urban area deprives from some important services which are also called as basic services. The importance of these basic services (namely pure and safe drinking water, garbage disposal, proper sewage system, sufficient street light, good road, presence of sufficient dustbins, health) are to lead a decent urban life .The rapid migration from rural area to urban and huge suburbanization has made the situation more difficult for the Urban Local Bodies (ULBs) to accommodate the extra population and serve them the basic services equally. This situation cannot be improved unless there is a restriction for settling down of migrating population within the city or there will be a comprehensive development plan for future for these urban areas.

Urban centres in India present a grim picture regarding the availability of basic services. At the aggregate level although nearly 91% of the urban population is reported to have access to safe drinking water supply, there are severe deficiencies with regard to quantity of water available to urban residents (CSO 2004).A recent survey conducted by the NIPFP show that in a sizeable number of urban centres, the availability of water is even less than 100 litres of water per capita per day (NIPFP 2000).In case of sanitation ,although nearly 50% of the urban population is covered with sanitation services, only 28% of the urban households are connected to the public sewage system. Further, whereas approximately 300 urban centres have a sewerage system, only 70 of them have sewage treatment facilities. The position with respect to the collection and disposal of garbage is worse. The coverage is low as nearly 30-40 % of garbage is left on the city street uncollected daily (IIR, 2001).

The role of urban governance assumed significance in this context. The Urban Local Bodies will have to frame a comprehensive development plan in which problem areas will be identified by which problem, areas can be identified and strategies can be taken accordingly. This seems to be present trend in urban planning. So, the researcher has selected the theme in this context.

Recent Trends of Urbanisation in India:

The increasing trend of population throughout the world has made the topic “Urbanization” more blazing now-a-days. Harold Carter recounts “The most conspicuous feature of today’s accelerated world population growth is its even greater rapidity of Urbanization.” The process “urbanization” in India, has started to accelerate after independence by the introduction of mixed economy system in the country. In terms of urbanization level, India is one of the least urbanized countries in the world. But if the size of the population is considered, India has the second largest urban population in the world (37.7crore) in 2011. Moreover, about two-thirds of the urban population in India lives in urban agglomeration having a population more than a million. Overall size of urban population is still below one third levels of the total 1.2 billion people in the country in 2011, but the growth of urban population has been quite high in the last two decades which was 31.5% in 1991-2001 and 31.8% in 2001-2011. For the first time since independence the absolute increase in population living in urban areas is more than that in rural areas.

Slum Scenario in India: In India, Urbanization process not only considered as the index of development, but haphazard and unplanned developments are the key factors of slum development. As per 2001 census, 40.6 million people are living in slums in 606 cities or towns. According to 2011 Census, 65.49 million people living in slums of 2613 cities/towns. In West Bengal, among the **129** statutory towns, the number of Slum reported towns are **122**. In **2001**, the slum population of West Bengal was **3,822,309**. In **2011**, the figure reached at **6,418,594**. The Slum population increased by **40%**.

Rationale of the Study:

Mathur, M.P. (2007) reviewed the norms and standards of basic services. The analysis shows that a variety of norms and standards are available for basic infrastructure and to suggest the measures to bridge the gap and improve the level of basic municipal services in the country. This analysis also shows that the norms and standards have become outdated in view of prevailing situation scenario. **Dasgupta, A. et. al (2008)** wanted to study the ward wise infrastructural development in the context of urban facility. The author has attempted the locational analysis of disparity of facility-utility condition and the degree of inequality in facility-utility services. Such studies help to identify the imbalances due to concentration of Facility-Utility Services in Posh localities. **Akhter, MD.S, et. al (2009)** measured the quality of services as assessed by the citizens. The research is based on primary data obtained by observation and questionnaire survey. The objective of the questionnaire was to measure the satisfaction level, to the extent of services offered by Dhaka City Corporation (DCC). **Rahaman K.R. (2009)** explored the existing public services provision in the study areas and to identify the deficiency of services of the study areas. The study is based on secondary data collected from Khulna City Corporation in Dhaka, Bangladesh and different reports conducted by Urban and Rural Planning discipline (1999) and Khulna City Corporation. The block wise analysis shows that the existing planning efforts could not produce satisfactory results in terms of balance development of different parts of metropolitan area. **Moinuddin G (2010)** tried to assess the present status of services provisioning and its mechanism and to explore the problem areas. **Samanta G (2013)** tried to identify the changing pattern of governance due to institutional reforms and their impact on urban basic services. The study shows that there are huge inequalities of the basic services. The services of health and sanitation are grossly insufficient to cater the increasing demand of the city people. The whole ranges in reforms of urban governance have not been able to improve the delivery and access to basic services. (Halder, September, 2014) Stated how the LP makes direct and negative impact on urban Infrastructure as well as public services which ultimately deteriorate the living standards of city dwellers. He also made some suggestion how the state and central Gov authority allocate funds, policies, for a balance development and role of ULBS in such initiatives. (Gupta, August, 2015) Highlights the solid waste management, one of major environmental issues in India. She also discusses the nature, cause of increase and proposes the mitigational strategy to prepare more efficient plans and policy. (Mustafijur rahaman, december, 2018) In his article shows how the marginalised economically backward peoples are affected with various types of health problems. He states that slums people are much deprived in his section. He also draws some solutions on behind the problems related to health infrastructural facilities in his research arena.

Study Area: - Konnagar has a rich old history dating back to 15th century. Mention of Konnagar was found in ancient as well as modern literature. It has many institutions of pride & heritage e.g Konnagar High School (established in 1854), Konnagar Hindu Girls’ High School (established in 1860), Konnagar Public Library & Free Reading Room (established in 1858), Brambho Samaj (established in 1879) & some others like this,

founded by a great man, Sri Shibchandra Dev, a product of the Young Bengal. With his tireless effort Konnagar post office was established and also Konnagar Railway Station. Konnagar is proud of the fact that it is the ancestral abode of Rishi Aurobindo. At the time of independence, Konnagar was a thinly populated urban town/village. After independence due to the surge of displaced person from East Pakistan its population increased time to time. The present population is 76,172 as on 2011. It is to note that the total households are 14818. Out of which, division male and female are 38,753 and 37399 respectively.

Konnagar is one of the important municipalities in Hugli district is well connected with Kolkata proper. 85% to 90% area is converted into built up space and only 5-7% area is open space of this municipality. Konnagar is a Municipality city in district of Hugli, West Bengal. The Konnagar city is divided into 19 wards for which elections are held every 5 years. The Konnagar Municipality has population of 76,172 of which 38,653 are males while 37,519 are females as per report released by Census India 2011. Population of Children with age of 0-6 is 5815 which is 7.63 % of total population of Konnagar (M). In Konnagar Municipality, Female Sex Ratio is of 971 against state average of 950. Moreover Child Sex Ratio in Konnagar is around 946 compared to West Bengal state average of 956. Literacy rate of Konnagar city is 90.84 % higher than state average of 76.26 %. In Konnagar, Male literacy is around 93.59 % while female literacy rate is 88.01 %. Konnagar Municipality has total administration over 19,796 houses to which it supplies basic amenities like water and sewerage. It is also authorize to build roads within Municipality limits and impose taxes on properties coming under its jurisdiction.

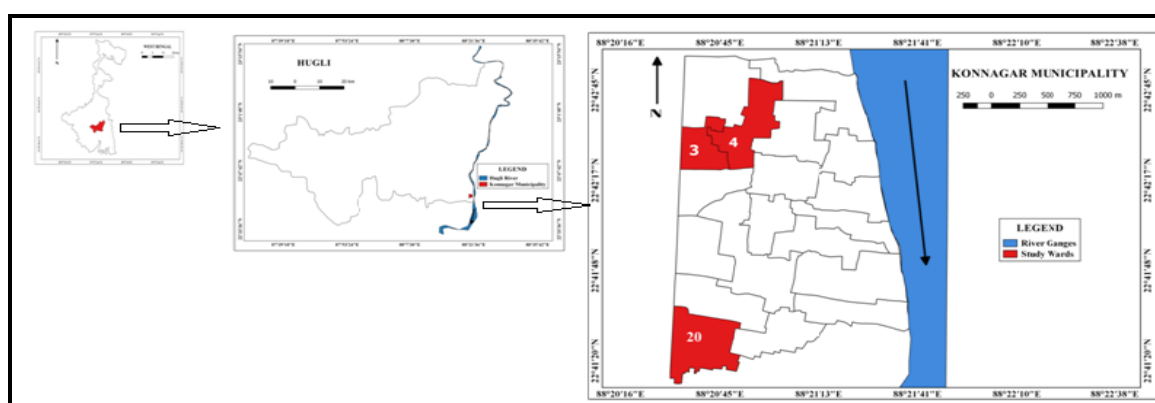


Fig: 1... Location Map

Source: prepared by author

Objectives of the Study:

The objectives of the study are:-

- To assess the accessibility and availability of seven basic services among the slum and non-slum households of the selected three wards in the study area.
- Citizens' experience in receiving Municipal services.
- Citizens' information with regard to municipal services.
- Local Government approach to citizen participation in decision making.
- To suggest the measures for improvement of basic services in those wards.
- Recommend a sustainable approach to reduce the slum problem.

II. METHODOLOGY & DATABASE :

The researcher has selected the slum and non slum households of the three wards out of the 20 wards depending on slum **household concentration** and the ratio of Slum and Non slum households in these wards. The ward numbers 3, 4, and 20 represent the highest concentration of slum households among the other wards. On the other hands, by applying the “**Location Quotient**” method, it has been seen that the slum population concentration in these three wards is higher than others. The location quotient values in these wards vary from 2.72 to 3.85, which reveal a higher population concentration in these wards. Both the slum household concentration and slum Population concentration are proved higher. In each ward the researcher has taken 30 households randomly and while selecting the samples, the variations in income and occupation have been taken into consideration. In each ward, these 30 samples have been distributed among slum and non slum households on the basis of their distribution ratio in the specific ward. So the total number of samples has been taken as **30×3=90**. To find out how far the basic services are available to the people, the researcher has conducted a primary household survey through the structured questionnaire. 1. Measuring the performance of municipal services, **TUGI** (The Urban Governance Initiative) index was used. The index is a percentage ratio of the total points given by the municipality divided by maximum score possible. In the point system, four is awarded for

VERY GOOD While the BAD, one is awarded and intermediate scores are three and two for GOOD and MEDIUM. 2. On the other hand, The Service Satisfaction Index (SSI) or The Citizen Satisfaction Index (CSI) has been used to understand the satisfaction level of respondent over Municipal services. The index is percentage ratio of total no. of 4/5 response divided by total no. of household. CSI is simply the percentage of all the CSAT survey responses you receive that are positive. **CSAT (%) = (No. positive responses / Total no. responses) * 100**. For example, if you had 300 positive responses out of 400 total responses your CSAT score would be 75%. $300 / 400 \times 100 = 75\%$. The definition of positive responses depends on the scale being used. In the example of scoring 1 - 5 (1 being bad and 5 being great) any scores above 4 would be included as positive responses. Besides, required Maps, information, literature & some other data are collected from the Municipality offices by questionnaire schedule and personal interview with officials. The maps were prepared by ARC GIS software. After all these scientific data input, tabulation, calculation and analyzing the same the research work was completed

Table: 01...Slum and Non slum household distribution

WARD NO.	TOTAL HOUSEHOLD	NUMBER OF SLUM HOUSEHOLD	NUMBER OF NON SLUM HOUSEHOLDS	PERCENTAGE OF SLUM HOUSEHOLDS	PERCENTAGE OF NON SLUM HOUSEHOLDS	SAMPLE RATIO PER 30 HOUSEHOLDS FOR EACH WARD
1	2302	246	2056	10.69	89.31	
2	644	54	590	8.39	91.61	
3	1161	385	776	33.16	66.84	10:20
4	947	320	627	33.79	66.21	10:20
18	1084	37	1047	3.41	96.59	
19	1297	201	1096	15.50	84.50	
20	1060	495	565	46.70	53.30	14:16

Source: Konnagar Municipality, 2011 and calculated by author

Table: 02...Determination of slum population concentration by Location Quotient Method

WARD NO	TOTAL POPULATION OF THIS WARD	TOTAL SLUM POPULATION OF THIS WARD	TOTAL POPULATION OF KONNAGAR	TOTAL SLUM POPULATION OF KONNAGAR	LOCATION QUOTIENT VALUE
1	9208	984	76152	9240	0.88
2	2523	108			0.35
3	4644	1540			2.72
4	3788	1280			2.78
9	3054	456			1.23
10	4411	332			0.62
15	4070	60			0.12
16	2770	120			0.18
17	3846	120			0.26
18	5679	148			0.21
19	5258	804			1.26
20	4242	1980			3.85

Source: Konnagar Municipality, 2011 and calculated by author.

III. RESULT AND DISCUSSION:-

Methodology 1:

Comparison of Urban Basic Services among the Non slum and Slum Sector of Study Wards (Based on The Urban Governance Initiative (TUGI) index and Satisfaction Index):

Municipality's Perspective: It is important to know the quality of services provided, whether they are being implemented or not and the types of problems are being faced to implement those services from the citizens. The data given by the municipality “ were analyzed both quantitatively and qualitatively. In measuring the performance of services **TUGI** (The Urban Governance Initiative) index was used. The index is a percentage ratio of the total points given by the municipality divided by maximum score possible. In the point system, four is awarded for VERY GOOD While the BAD, one is awarded and intermediate scores are three and two for

GOOD and MEDIUM respectively. Following mathematical expression shows how the TUGI index is determined.”(Akther, M. S., Islam, I., & Hassan, M. M. U. (2009))

$$\text{TUGI Index} = \left\{ \frac{\sum (li \cdot n)}{4 \cdot n} \right\} \times 100$$

Where, li is the scale value of service , ‘ n ’ is the total number of respondent

Table: 03...Interpretation of TUGI Index Value

VALUE	INDICATOR
>80%	VERY GOOD
60%-80%	GOOD
40%-60%	MEDIUM
<40%	BAD

The satisfaction index is used to promote accountability, transparency and participatory governance. Here satisfaction index is used for delivery of health services by the municipality and ward committee.

$$\text{Satisfaction Index} = \frac{\text{Number of satisfied person} - \text{Number of dissatisfied person}}{n}$$

Where, Sat = no. of satisfied person. Dissat=no. of dissatisfied person. n = Total number of households

Table: 04...Interpretation of Satisfaction Index Value

INDICATOR	SATISFACTION LEVEL
0.5	HIGHLY SATISFIED
0.5-0	SATISFIED
0- (-0.5)	AVAERAGE
< -0.5	DISSATISFIED

Interpretation of TUGI and Satisfaction Index Results: The analysis by TUGI Index and Satisfaction Index shows that there is a little difference among the availability and accessibility of the different basic services in the three selected wards of Konnagar Municipality.

a. Drinking Water: As per the TUGI analysis, it shows that there is much difference in case availability and accessibility of drinking water among the Non slum and Slum sector of these three selected wards. In maximum cases the percentage of supplying fresh drinking water is less in slum (on an average of 64%),where as this rate is high in non slum sector(on an average 79%).This is due to the insanitary condition of the slums, which made a barrier in development.

Table: 05...Comparison of drinking water facility among Non slum and Slum sectors by TUGI Index

DRINKING WATER FACILITY								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS
NON SLUM	81%	VERY GOOD	NON SLUM	71%	GOOD	NON SLUM	83%	VERY GOOD
SLUM	58%	MEDIUM	SLUM	68%	GOOD	SLUM	66%	GOOD

b. Garbage Cleaning:- In case of garbage cleaning operation the disparity is almost same in nonslum and slum sector.TUGI Index shows the non slum sector enjoys almost 68%(on an average) of facility, the slum sector gets 55% of facility. The main reason behind this disparity is lack of discipline among slum dwellers, they through garbage here and there, the garbage collecting van cannot enter into the slum due to insanitary condition of slums.

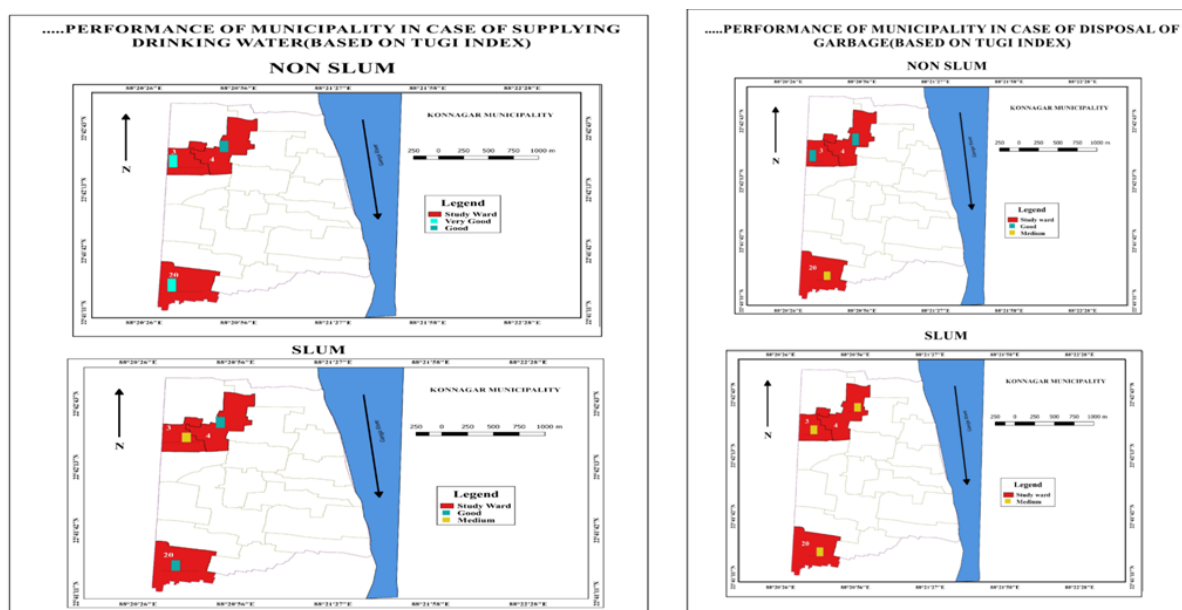


Fig:2

Source: Survey 2018

Table.:06...Comparison of Garbage Disposal facility among Non slum and Slum sectors by TUGI Index

GARBAGE DISPOSAL								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS
NON SLUM	75%	GOOD	NON SLUM	69%	GOOD	NON SLUM	55%	MEDIUM
SLUM	58%	MEDIUM	SLUM	55%	MEDIUM	SLUM	57%	MEDIUM

c. **Drainage and Sewerage:-** One of the most important basic amenity in a municipal area is drainage system. In case of drainage system, these three wards experience medium condition, especially the condition of slum areas are worsened. Most of the drains are not cleaned regularly, the size of the drains are small. So the water clogging problem is become a matter of concern in monsoon season. The TUGI analysis shows an average (57%) condition is in the slums.

Table.:07...Comparison of Drainage and Sewerage Condition among Non slum and Slum sectors by TUGI Index

DRAINAGE AND SEWERAGE								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS
NON SLUM	55%	MEDIUM	NON SLUM	58%	MEDIUM	NON SLUM	53%	MEDIUM
SLUM	63%	GOOD	SLUM	65%	GOOD	SLUM	46%	MEDIUM

d. **Street Light:-** The status of street light is quite good in these three wards as per TUGI analysis. The proper maintenance, enough amount of lights make this service accountable to the people. 69-75% area is covered by lights as TUGI Index shown.

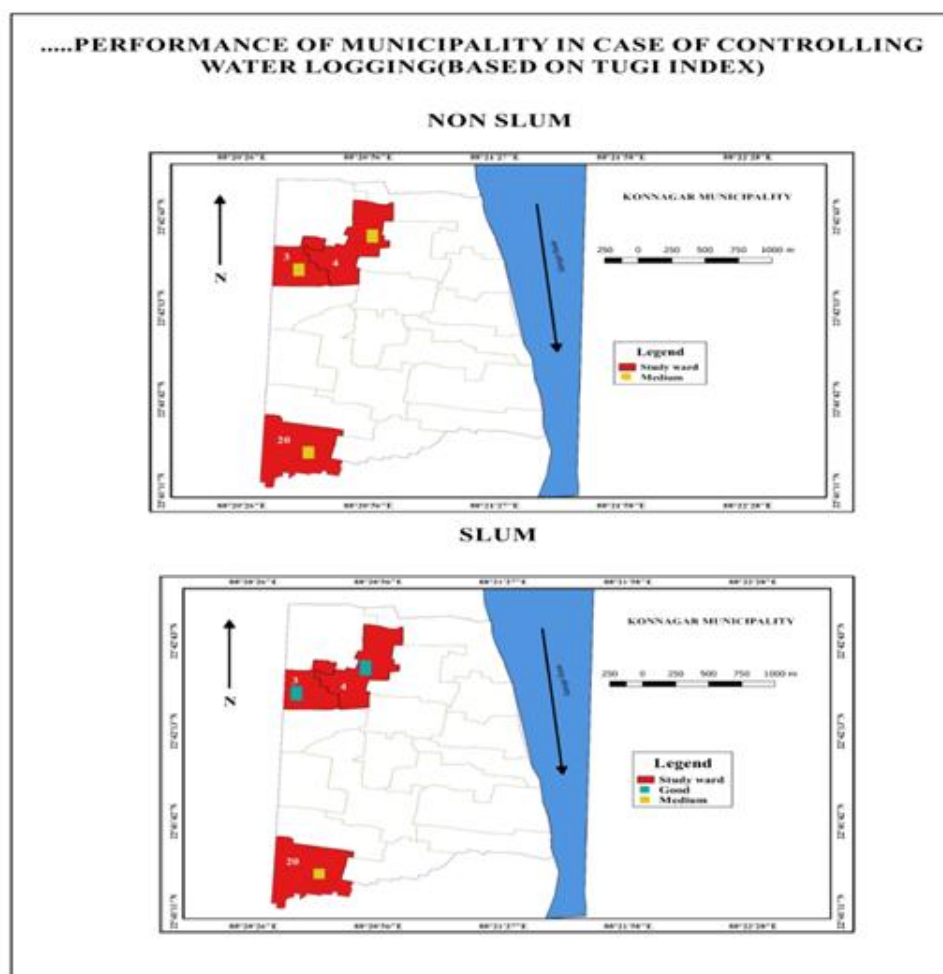


Fig:3

Source; Survey 2018

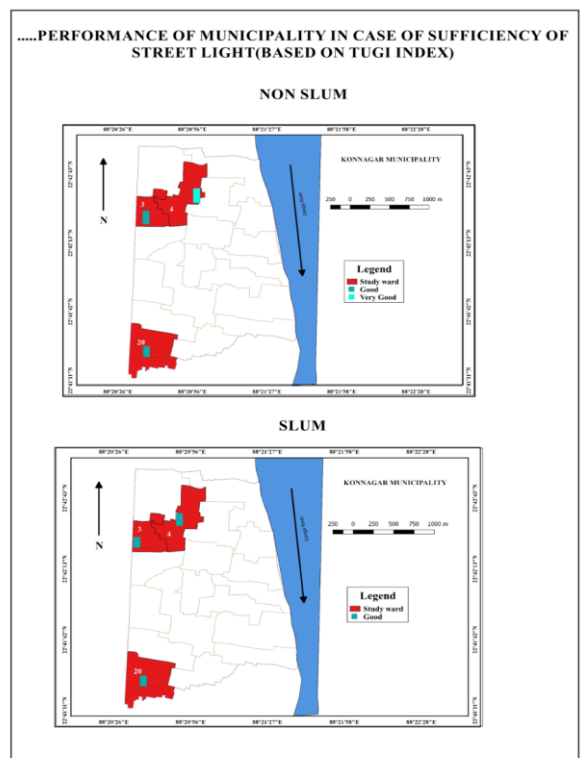
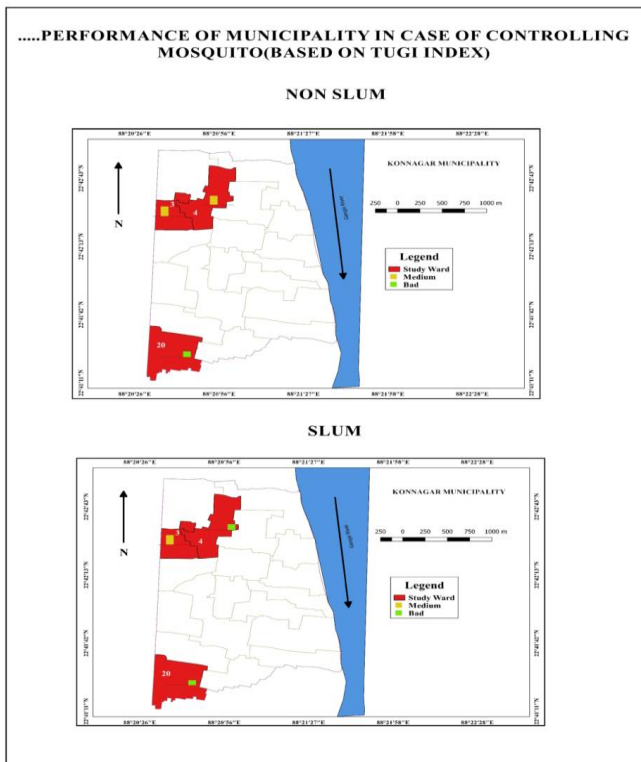
Table.:08...Comparison of Street Light facility among Non slum and Slum sectors by TUGI Index

STREET LIGHT								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS
NON SLUM	78%	GOOD	NON SLUM	83%	VERY GOOD	NON SLUM	63%	GOOD
SLUM	60%	GOOD	SLUM	70%	GOOD	SLUM	61%	GOOD

e .Mosquito Control:- One of most important services is to control the mosquito. The TUGI Index represents a diverse picture of the non slum and slum sector. In maximum portions of these wards are fallen into “Bad” category. The condition is more pathetic in slum areas. They got only 39% of facility according to the TUGI score. The municipality is trying to fix the problem.

Table.:09.....Comparison of Mosquito Control facility among Non slum and Slum sectors by TUGI Index

MOSQUITO CONTROL								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS
NON SLUM	56%	MEDIUM	NON SLUM	51%	MEDIUM	NON SLUM	33%	BAD
SLUM	55%	MEDIUM	SLUM	33%	BAD	SLUM	29%	BAD



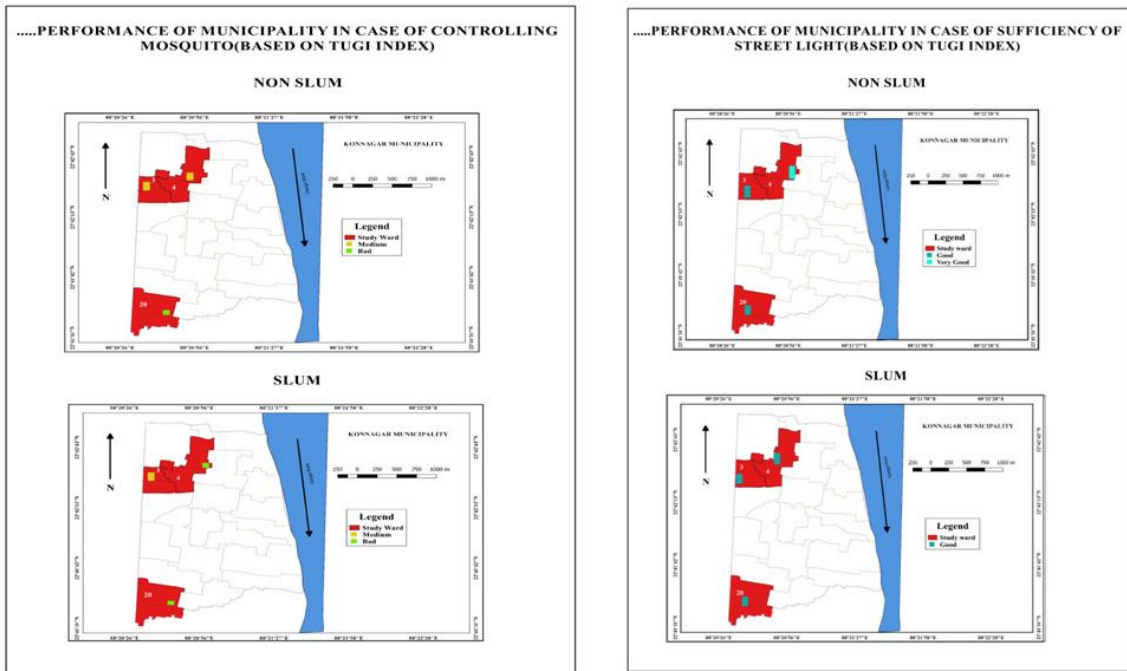
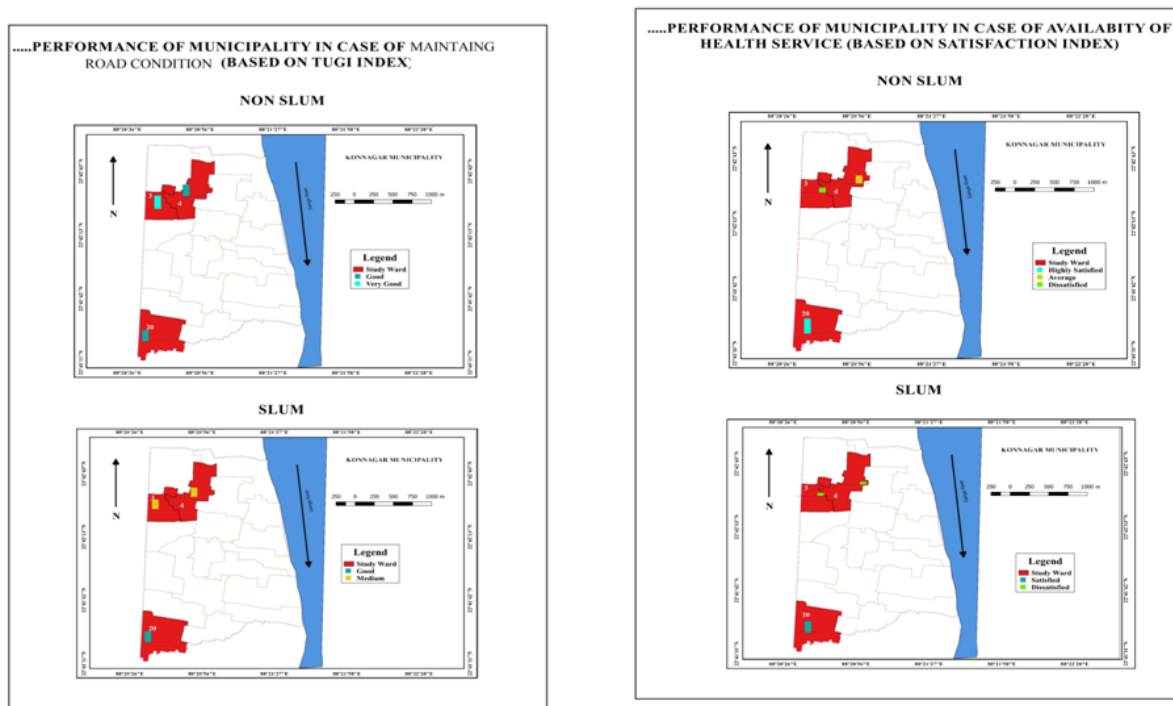


Fig: 4&5
Source: Survey 2018

Table.:10.....Comparison of Road Condition among Non slum and Slum sectors by TUGI In

ROAD QUALITY								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS	SECTOR	TUGI INDEX SCORE	STATUS
NON SLUM	81%	VERY GOOD	NON SLUM	70%	GOOD	NON SLUM	69%	GOOD
SLUM	58%	MEDIUM	SLUM	58%	MEDIUM	SLUM	68%	GOOD



Fig; 6&7

Source; Survey 2018

Table: 11...Comparison of Health Service facility among Non slum and Slum sectors by Satisfaction Index

HEALTH SERVICE								
WARD NO.3			WARD NO.4			WARD NO.20		
SECTOR	SATISFACTION INDEX SCORE	STATUS	SECTOR	SATISFACTION INDEX SCORE	STATUS	SECTOR	SATISFACTION INDEX SCORE	STATUS
NON SLUM	-0.6	DISSATISFIED	NON SLUM	-0.5	AVERAGE	NON SLUM	1.0	HIGHLY SATISFIED
SLUM	-1.0	DISSATISFIED	SLUM	-1.0	DISSATISFIED	SLUM	0.4	SATISFIED

f. Maintenance of Road Condition:- According to the TUGI Index, the road condition is quite good in this study wards. Almost 74% of roads are in good condition in nonslum sector. On the other hand, in slum sector the figure quite different. In slum sector 61% roads are in well condition.

g. Health Service (Measured by Satisfaction Index):- Health care facility is one of the important sectors. In our study ward there is a wide variation within the Non slum and Slum sector regarding this sector. The Satisfaction index shows that, the non slum sector gets good facility in case of health service, but the slum sector can't able to access the facility due to the unawareness among them. Most of the slum people don't know about the different health schemes, so they are not getting the benefit.

Perception study on availability and accessibility of municipal services in selected wards of Konnagar Municipality (questionnaire method):- After the analysis of the municipal service regarding data given by municipality, a picture is depicted about the status of the services. To check the availability and accessibility of the services, the researcher has conducted a perception survey in these three wards.

Case Study no 1: Ward no.3:-

A. Drinking water:- In this ward, the respondents mainly get water through pipe lines. But as per their opinion, the water facility is not good enough. It is due to the irregular timing of water, damages of pipe lines makes this system problematic.

B. Garbage Cleaning:- The garbage cleaning operation in this ward represents a diverse picture in terms of non slum and slum sector. Household survey shows that there are insufficient numbers of dustbins compared to density of population. People have not been able to access the door to door facility of municipality's garbage cleaning van. They do not have chance to transfer garbage to the van.

C. Drainage and Sewerage:- In this ward, drains are cleaned in a interval of 6 months, which is very lengthy interval. Due to this lengthy interval of cleaning operation, sometimes (in the months of monsoon specially) the citizen faced water logging problem in their locality. The size of the drains in slum area is small. So, during the period of heavy rain, the capacity of water passing through the drains faced problem and as a result they got waterlogged.

D. Street Light:- In Raja Singh Bastee, Chhai Debi Bastee of ward no. 3, the family members of daily workers have faced problems due to inadequacy of light in the interior of their slum areas. So that, the women and children faces maximum problems especially during the rainy season.

E. Mosquito Control:- One of the major problems regarding mosquito in the non slum sector of this ward is the inadequacy of spreading mosquito resisting gas. Most of the people say after the spreading of the gas, it works only 1-2 hours and after that the situation remains same. The drains are also dirty.

F. Road condition:- The road condition in this ward is not very good. As per the respondent, most of roads are damaged, or the upper layer of pitch has removed. This becomes more dangerous during rainy period.

G. Health Service: In ward no. 3 there is no well established health centre but only a clinic available in that area. The only clinic which exists in that area is underprivileged in terms of infrastructure. Maximum people are not satisfied with the service regarding health in that area.

Perception On availability and accessibility of urban basic services in ward no.3

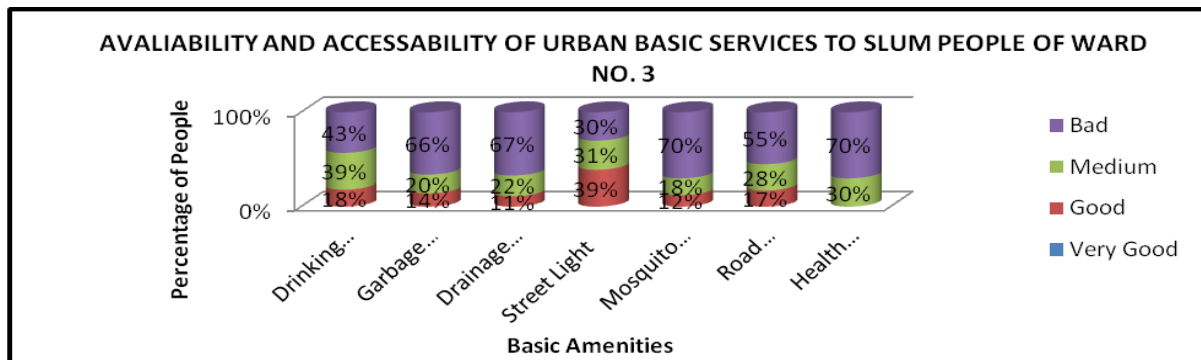
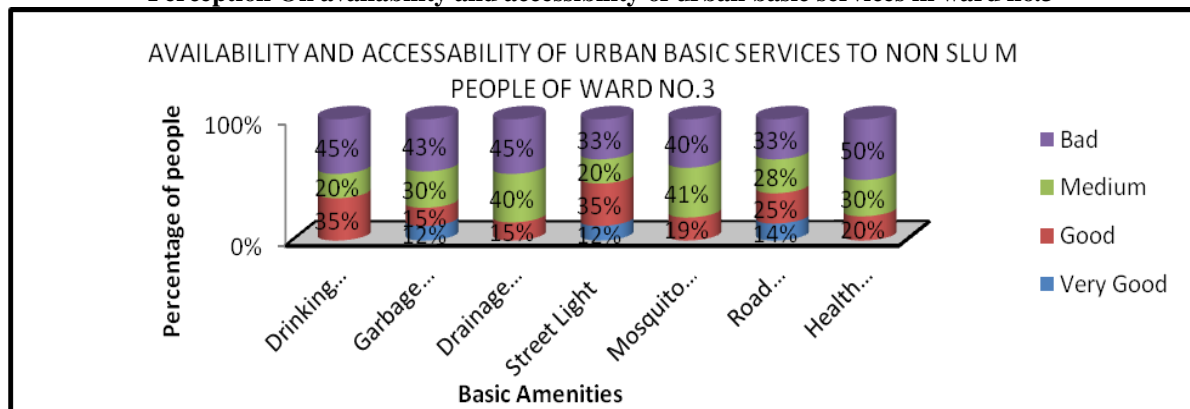


Fig: 8& 9

Source: Primary Survey, 2018

Case Study no 2: Ward no.4:-

A. Drinking water: There is some basic problems faced by the people in this ward. Sometimes they faced low water force. Sometimes due to the leakage of pipelines, the supply of drinking water gets affected. Besides the slum people faces huge problem during summer.

B. Garbage Cleaning: Household survey among the slum residents in this ward shows that door to door garbage collection facility is not available to most of the slum people. Sometimes they have not got the time to shift that garbage to the van, so that they dump those in their locality. This is not a healthy practice.

C. Drainage and Sewerage: Though the drains are cleaned at a interval of 1 month, but during the heavy rain or in monsoon period the drains become over watered. Besides, the width of the drains are less. so the water cannot drained properly.

D. Street Light: - in the interior of the slum, the lights are not high mass with comparison to main roads or non slum area. In C.S Mukherjee Street Slum, the families of daily base workers face problems. in rainy season or stormy weather, due to the long term power cut, they face darkness.

E. Mosquito Control: - One of the major problems regarding mosquito in the Slum sector of this ward is the in adequacy of spreading mosquito resisting gas. Maximum time no steps taken to check the mosquito problem .Also they do not take any other measures to control this problem.

F. Road condition:- Road repairing is very much important, because damage road may cause accidents. in slum sectors of the study ward ,the road quality is quite bad than non slum sectors.

G. Health Service:- The main problem in this area is there is no well established health centre ,by which the people can get the better health facility. Maximum people are not satisfied with the service regarding health in that area.

Perception on availability and accessibility of urban basic services in ward no.4

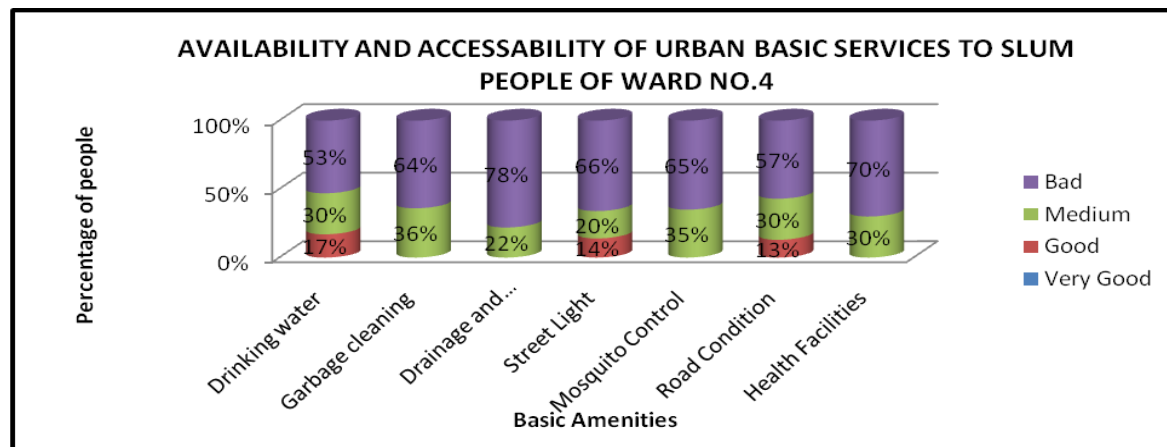
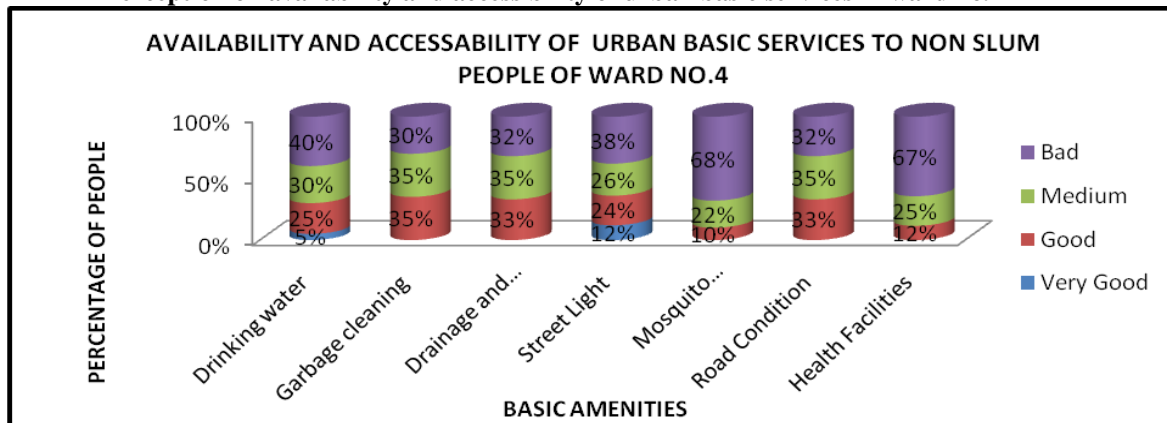


Fig 10& 11
Source: Primary Survey, 2018

Case Study no 3: Ward no.20:-

A. Drinking water: There is an important problem faced by the non slum people during summer months. Sometimes they faced low water force or sometimes they got inadequate water. This problem is also faced by those people who have the private tap in their homes.

B. Garbage Cleaning: Household survey among the residents in this ward shows that there are insufficient numbers of dustbins compared to density of population. Maximum non slum people think that there must be increase the no. of vats.

C. Drainage and Sewerage:- In this ward major problem(s) faced by the non slum people in case of drainage system. Most of the people said that the drains are not cleaned in a regular interval. In some parts of the ward this cleaning process commence at in a interval of 6 months. As a result water logging problem creates in those times.

D. Street Light:- There is a major problems regarding street lights faced by the Kansari Pukur Bustee No. 1 people of this ward. Like the Non slum sector, this problem is in case of maintenance of the street lights. In the slum interior, the lights are not working properly.

E. Mosquito Control: One of the major problems regarding mosquito in the Slum sector of this ward is the inadequacy of spreading mosquito resisting gas. Maximum time no steps are taken to check the mosquito problem. Like the non slum area, drains are not cleaned regularly in this sector. Also they do not take any other measures to control this problem.

F. Road condition:- The interior roads are not maintained properly throughout the year. As a result the roads are not in well condition. So many pot holes are created which increases the tendency of fatal accidents especially during monsoon.

G. Health Service:- Though there is a health centre, but due to less awareness campaign the people cannot get the benefits. Another problem is there is not enough amount of doctors availed in this health centre. So each and every people do not get the facility.

Perception on availability and accessibility of urban basic services in ward no.20

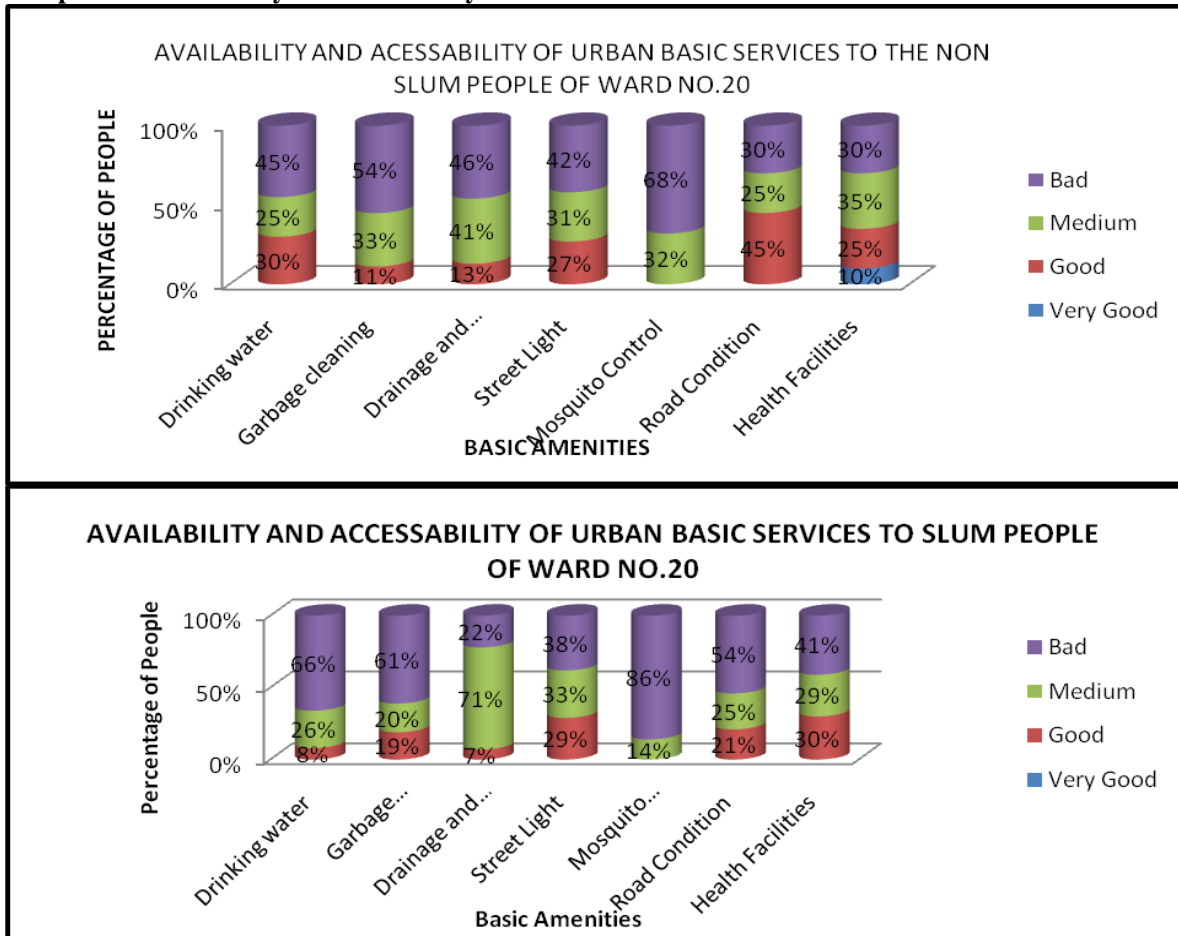


Fig: 12& 13

Source: Primary Survey, 2018

Methodology 2:

To Assess the quality of municipal services a CSAT has been prepared on the basis of 13 municipal services. The citizens' response on these services categorized into 3 basic parameters, bad, moderate, and good. On the basis of their response, these responses clubbed into two parts, satisfied and unsatisfied. By this analysis one can have an idea about the performance of local bodies in different basic needs.

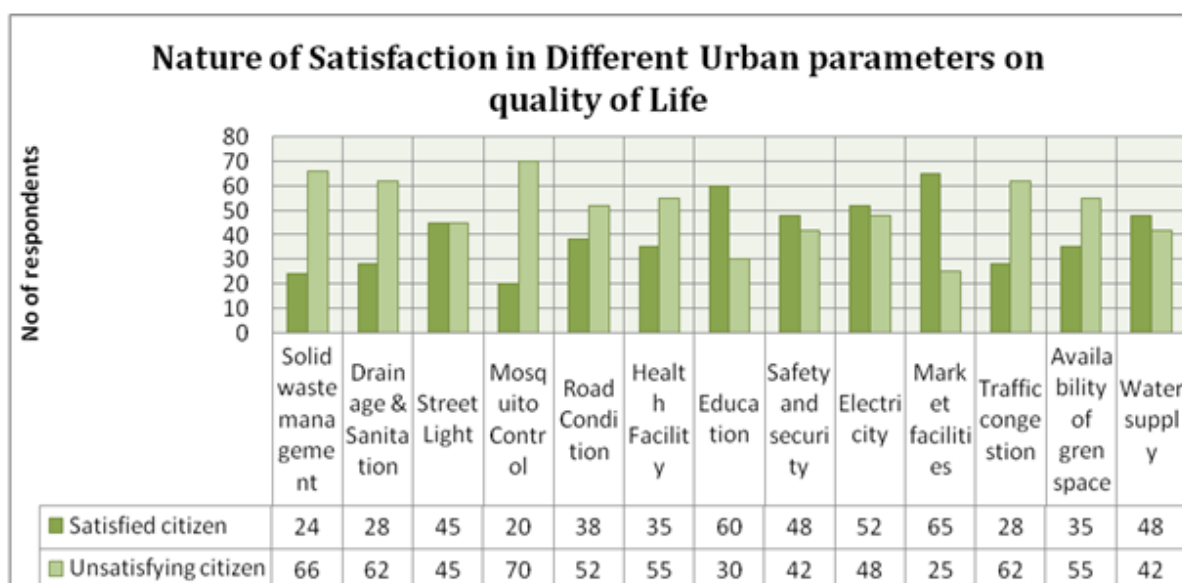


Fig: 14

Source: Primary Survey, 2018

IV. DISCUSSION:

From the above diagram it is quite evident that except the electricity connection, availability of street life, waters supply, citizens response very satisfied on other parameters provided by the ULBs. The educational facility is very good. On the contrary drainage and sanitation condition, solid waste management and traffic congestion are the lower level of satisfaction due to over and unplanned urbanization. Konnagar is now having the major thrust of development in terms of real estate development. Much major branded company trying to set their outlets in this area. Statement of municipal expenses 2015-2016 shows that out of 13 municipalities in Hooghly district Konnagar ranked 12 in terms of expenses in different urban services provided by the ULBs.

V. SUGGESTIONS AND CONCLUSIONS:

After the dense observations, it has been observed that there are differentiation in case of availability and accessibility of these services in study area. However, there is enough scope to improve these services. So, the researcher proposes some mitigation measures along with some strategic suggestion in role of ULBs for the betterment of quality of services.

1. Municipalities should give a higher attention to increase public access and improve information channels with citizens. The Municipality should establish Citizen Information Offices which would improve access to information by all interest groups.
2. Municipalities should enact procedures that regulate documentation of requests and complaints made by citizens. Issuing of Application Acknowledgment Note is a minimum mandatory requirement to be applied.
3. Tariffs for all municipal services should be public. This would contribute directly to prevention of corruption and bribery;
4. Municipalities should select communication tools that proved to be effective in their communication with citizens.
5. Municipalities should conduct frequent internal and external evaluations of services they provide, as a way to increase quality and prevent corruption.
6. Implementation of participatory processes is crucial in bringing citizens closer to their local government.
7. Municipality should adopt an integrated policy for inclusive urban development
8. Implement GIS based urban planning systems for slum identification and management as well as develop a database of slum dwellers, squatting areas, land policy regulating the area, and ownership status in order to prioritize projects.
9. Developing and updating this database will have to be worked out with state and local government bodies.
10. Explore mechanisms for involving public or private sector financial institutions to enlarge the resource base for taking up various slum development programs.

SELECTED REFERENCES:-

- [1]. Akther, M. S., Islam, I., & Hasan, M. M. U. (2009). Evaluation of municipal services in selected wards of Dhaka City Corporation: Citizen's perspective. *Theoretical and empirical researches in urban management*, 4(1S), 133-145.
- [2]. Asif, M., Muneer, T., Kelley, R.: Life cycle assessment: A case study of a dwelling home in Scotland. *Build. Environ.*42(3), 1391–1394 (2007).
- [3]. CIB and UNEP-IETC: Agenda 21 for sustainable construction in developing countries. Technical report Bou/E0204 (2002).
- [4]. Cruz, N.F., Marques, R.C.: Revisiting the determinants of local government performance. *Omega*44,91–103 (2014).
- [5]. Ding, G.K.: Sustainable construction: the role of environmental assessment tools. *J. Environ. Manage.*86(3), 451–464 (2008).
- [6]. Das.P.L. (2018), *Konnagarer Itibritiya, Creation (India)*,Konnagar, 186-87,247-249.
- [7]. Gupta, N. (August, 2015). A view on Current Status of Municipal Solid waste management in India. *Journal of Environmental sciences*.
- [8]. Haapio, A.: Towards sustainable urban communities. *Environ. Impact Assess. Rev.*32(1),165–169 (2012).
- [9]. Halder, S. (September, 2014). Assessment Status of amenities and service delivery in class 1 town in India(case stude of Berhampore town, Murshidabad). *Journal of geography and planning* , 140-149.
- [10]. Horta, I.M., Camanho, A.S., Dias, T.G.: Residential building resource consumption: a comparison of Portuguese municipalities' performance. *Cities*50,54–61 (2016).
- [11]. Kundu, A., & Maitra, S. (1999). Access of urban poor to basic services: an analysis in the changing perspective of urban governance in India. *India: the Challenge of Urban Governance*. National Institute of Public Finance and Policy, New Delhi Google Scholar, 131-161
- [12]. Mathur, M. P., Chandra, R., Singh, S., & Chattopadhyay, B. (2007). Norms and standards of municipal basic services in India. National Institute of Urban Affairs (NIUA) Working Paper, 1-19.
- [13]. Moinuddin, G. (2010). Metropolitan government and improvement potentials of urban basic services governance in Dhaka City, Bangladesh: rhetoric or reality?. *Theoretical and Empirical Researches in Urban Management*, 5(5 (14), 59-81.
- [14]. Mustafijur rahaman, d. N. (december, 2018). An Analysis of Health Infrastructure facilities in Krishnagar Municipality Area, west Bengal. In *Demographic Structure and Social Development*. A K Publication.
- [15]. Paul, S. (2012). Analysis of Micro Level Disparities in Urban Facility-Utility Services: A Study on Barasat City, West Bengal, India. *Journal of Urban and Regional Analysis*, 4(2), 173.
- [16]. Paul, S. (2012). Factors and Dimensions of Inter-Ward Disparities in Urban Facility-Utility Services in Burdwan City, India. *Archives of Applied Science Research*, 4(3), 1376-1388.
- [17]. Paul, S., & Dasgupta, A. (2008). Urban Facility-Utility Mapping of Krishnanagar Municipality–An Appraisal of Ward-wise Infrastructure Development. *Indian Journal of Landscape Systems and Ecological Studies*, 31(2), 91-98
- [18]. Rahaman, K. R., & Salauddin, M. (2009). A spatial analysis on the provision of urban public services and their deficiencies: a study of some selected blocks in Khulna City, Bangladesh. *Theoretical and Empirical Researches in Urban Management*, 4(1S), 120-132.
- [19]. Samanta, G. (2013). Urban governance reforms and basic services in West Bengal. *Challenges of urbanization in 21st Century*, 3, 360-977.
- [20]. Sharma, A., Saxena, A., Sethi, M., Shree, V.: Life cycle assessment of buildings: a review. *Renew. Sustain. Energy Rev.*15, 871–875 (2011)2481.M. Horta et al.imhorta@fe.up.pt Page 13
- [21]. <http://www.bmtpc.org/topics.aspx?mid=281>(Accessed on 28.06.2018)
- [22]. <http://www.konnagarmunicipality.org/Default.aspx?PageID=62> (Accessed on 28.06.2018)
- [23]. https://books.google.co.in/books?id=e2SdBgAAQBAJ&pg=PA320&lpg=PA320&dq=nipfp+report+on+urban+drinking+water+2000&source=bl&ots=2zbZ0139_D&sig=ACfU3U17QCyq15Kh9ubq2x13z15Mujvkw&hl=en&sa=X&ved=2ahUKEwiz6bGH6vfjAhX0juYKHZ6DAFQ4ChDoATANegQICRAB#v=onepage&q=nipfp%20report%20on%20urban%20drinking%20water%202000&f=false (Accessed on 10.08.2019)
- [24]. <https://www.epa.gov/npdes/2004-npdes-cso-report-congress> (Accessed on 28.06.2018)
- [25]. https://www.kmdaonline.org/home/sdswm_sector_info(Accessed on 28.06.2018)
- [26]. https://www.wbdma.gov.in/HTM/MUNI_SWM.htm(Accessed on 28.06.2018)