

*Full Length Research Paper*

# Assessment status of amenities and service delivery in class-I town in India (Case study of Berhampore Town, Murshidabad)

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In recent era, rapid rate of urbanization and population explosion in developing countries like India have its direct and negative impact on existing urban infrastructure as well as public service delivery, which deteriorate the living standard of city dwellers. It is evinced that there is a wide gap between minimum entitlements of the service provisions delivered and the ever increasing demand of stakeholders. This situation is more critical in case of small urban areas and Berhampore Municipal town is no exception. This study seeks to discover an alternative way-out through analyzing the cognitive pattern of stakeholders' response regarding status of urban amenity and service delivery and also the choice of suggestion for improvement. Perception pattern are analyzed through the basic understanding of the people in terms of their choices of suggestions and the parameters are taken as proxy elements as of sign, signal and expressions as to how they are thinking about the status and development of urban amenity and service delivery. The perceptual data are obtained by stratified random sample survey, covering all the wards of Berhampore town, and the collected data are analyzed applying statistical tools. Finally, it is evident that among various criterion garbage management followed by management of drains and sewerage are the preferable performance of Urban Local Body (ULB). On the other hand, among eight suggestions the most popular suggestion are investment and allocation of funds for the development of amenity should be on priority basis or regional demand, followed by increasing plan allocation by state and central government for the urban infrastructural development.

**Key words:** Amenity, service delivery, citizens' perception, Berhampore Town, Urban Local Body (ULB).

## INTRODUCTION

As a consequence of population increase, not only in small and medium towns, but also in mega cities in India, the urban amenities and service delivery system are under severe pressure (Chada, 1988; Gilbert, 1993; Singh

et.al., 2005; Mohanty et.al., 2007). Effective and time-bound delivery of various types of urban amenities or urban public services like water supply and sewerage, urban roads and transport, police and judiciary, general

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administration, fire protection, parks and green belts, environmental improvement of slums and slum dwellers relocation, street lighting, sanitation, primary education, public health etc., are the pre-conditions for ensuring normal civic life of urbanites and promoting their social welfare. Since urban amenities are both tangible and intangible in nature their delivery entails some problems (Heggade, 1992). For the present study tangible urban amenities are concerned with the authenticated information provided by urban authorities. While the intangible are concerned with the satisfactory level of the citizens according their own perception regarding the availability of amenities. It is also worthwhile to mention that, some empirical studies quoted a strong, direct link between economic growth and the presence of amenities, and economic growth ensures development of any micro or macro region (Paul, 1994).

The pattern of urban government in India during the colonial period being entirely responsible for all types of present day urban amenities existed in a town or city. But it may not be acceptable politically at the present stage of political development. Contemporarily it is possible to device a single agency approach to produce and deliver at least the local urban amenities by reorganizing the municipal government and integrating the other machinery of the ULB (water supply and sewerage boards, Construction Industry Training Board (CITB's), metro authorities, medical etc.) with it. Such a revitalized urban government would take care of the efficiency and equity issues of delivery of urban amenities. The higher level governments can provide incentives, loans and grants and devise policy guidelines. This view point has gained attention of the policy-makers and academicians (Heggade, 1992). So this present study being in search of the status of urban amenities and service delivery, future function of ULB in class-I town like Berhampore (Murshidabad), based on the citizens' perception.

## ARTICLE REVIEW

Chada. (1988), made a study on urbanization and provision of amenities in Punjab and in this article he discussed the growth of urban population, land use pattern and urban amenities and the impact of municipal expenditure on urban amenities. Heggade. (1992), made a case study on coproduction approach to urban amenities delivery in Karnataka and he scientifically judge the coproduction approach to urban amenities delivery. Paul. (1994), explored the evidences regarding whether availability of amenities may be considered as a tool of economic development and from the study he concluded that, positively availability of civic amenities is a tool of economic development. Akhtar, (1997), studied the amenity pattern of Hyderabad with the help of remote sensing and Geographic Information System (GIS) as a

tool for urban studies. Rahman and Hardie (2004), worked on subdivision of specific amenities and residential property values. Sekhar et. al. (2005), prepared a report on public services for the peri-urban areas of Bangalore based on citizen's view. Wang et. al. (2006) made a case study on opportunities and challenges of shopping centre development in China. Shaw. (2007), worked on basic amenities in urban India and the analysis was made on state and town level. Carlino. (2008), worked on leisure amenities and urban growth as a beautiful city. On the other hand, Sutton (2008) made case study on urban open space of Msunduzi municipality of South Africa. Bhagat. (2011), worked on urbanization and access to basic amenities in India and he gave detailed information but in broad manner. Ahluwalia. (2011), made a report on Indian urban infrastructure and services and also recommended some path-ways for development.

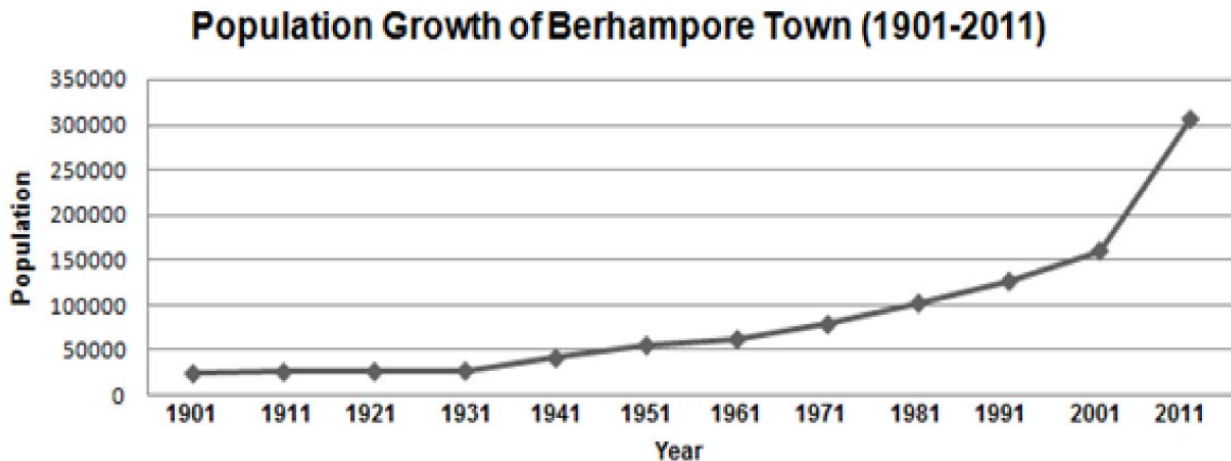
## OBJECTIVES

This study seeks to achieve some specific objectives, which are as follows:

1. To find out the background of class-I town like Berhampore, Murshidabad, West Bengal and India.
2. To analyze the status of urban amenities and service delivery system in Berhampore town.
3. To explore the patterns of citizens' perception for the development of urban amenities and service delivery system.
4. To formulate the ways by which resulting data base are to be used for future regional planning, based on the stake holders' requirement.

## MATERIALS AND METHODOS

The sources of data are primary and secondary together. The sources of secondary data are Census of India, Ministry of Urban Affairs (Govt. of West Bengal), Berhampore Municipality and various books and journals. Before proceeding for this research work various kinds of literatures, journals, books, reports etc. were surveyed for methodological preparation, the research was framed after a pilot survey. A structured questionnaire has been used for field survey to determine the perception and views towards urban amenities and service delivery system of Berhampore town of Murshidabad District. There is also the provision of alternative suggestions. The survey has been conducted in Berhampore town (Murshidabad) on the Nov., 2013 to Feb., 2014. For primary source of database from each ward (covering 23 wards) 10 non-slum household and 5 slum households were interviewed by personal field survey and the total numbers of non-slum and slum respondents are 265 and 86 respectively. The method of selecting individual, purposive stratified sampling method has been applied. And the respondents were ever married and having at least reading and writing ability and earning member of respected household, those who belongs to any three income groups referred by West Bengal Economic Review (Lower income group: ₹ <3500; Middle income group: ₹ 3500-29999; Higher income group: ₹ >30000).



**Figure 1.** Phenomenal population growth in small urban area.

In order to trace the views and perceptions about the sector-wise status of urban amenities and also how individuals have expressed their choices between pair of suggestions for the improvement of the foresaid aspect. In case of assessment status of amenities and service delivery, against 8 selective criterion (health facility, water supply, construction and maintenance of roads, sewerage management, street lighting, traffic control, parks and gardens management, security aspect and town beautification), four parameters have been chosen with different weightage value, that is, *very good* (0.5), *good* (0.3), *not satisfactory* (0.1), *unknown* (0.001). In this regard simple statistical techniques were applied using statistical software (SPSS 10.0). As the researcher adopted the method of paired comparison, it should be noted that the paired comparison provides ordinal data, so it has been converted into interval scale by Composite Standard Method of J.P. Guilford (1954). This technique involves the conversion of frequencies of preferences into a table of proportions which are then transformed into Z matrix by referring the table area under normal curve and this detail is given in Annexure I. The maps were prepared by GIS software. After all these scientific data input, tabulation, calculation and analyzing the same the research work was completed.

### Study area

Berhampore is the District Head Quarter as well as core town of Murshidabad, West Bengal sited at eastern part of India and gaze at as developing urban area under backward region. This town is situated between  $24^{\circ} 38' N$  (latitude) and  $88^{\circ} 16' E$  (longitude). According to Census of India (2011), Berhampore town categorized as class-I Municipal town with an area of  $16.67 \text{ km}^2$  and with an overall population density of 18,332 persons per sq. km. The location of this town is shown on Figure 1.

### What is meant by class-I town?

According to the Census of India (2011), town and cities can broadly be classified into six categories and class-I town refers to the Municipal town or Urban Local Body (ULB) which have the total population of 100,000. The examples of class-I town or Municipal town of West Bengal, other than Berhampore Town, are Asansol, Balurghat, Bangaon, Bankura, Barduwan, Basirhat, Birnagar,

Chakdaha, English Bazar, Haldia, Jalpaiguri, Nabadwip, Raiganj, Santipur etc.

### Background of Berhampore Town

The town is primarily a service town having a population of 305,609 as per 2011 census, with an overall population density of 18,332 persons per sq. km. The decadal growth rate over the last five decades varies from +26.63 (1971) to +90.81 (2011). The detail population growth rate (Figure 2) of this aforesaid town is shown in Table 1. And there is a phenomenal population growth in a small urban center like Berhampore. The town has developed as a commercial center for an agricultural region—flour milling, rice and oil-seed milling and industries including silk weaving, ivory carving and other type of household industries. This town is also renowned for its manufacture of bell-metal and brass utensils, as well as ivory and wood carving. Berhampore is a famous place for tourists in West Bengal. It gets tourists' flow from local and as well as from foreign, being the first Head Quarter of the East India Company and having a long enriched history of the 'Nawabs', Kings, 'zamindars' (ruler) and other European colonial forces such as Dutch, Portuguese, English and French. Now-a-days there is also boom of constructional business—establishment of branches of financial companies, multistoried buildings, apartments, new commercial market areas etc. These are the pull factors for immigrants who are being flourished the town.

### RESULTS

Based on the records of Berhampore Municipality, it can be briefly state about the civic amenities provided by the municipality are, 1.62 sq.km open spaces or play grounds or parks, metalled and unmetalled roads are 950 km., 2,227 km long drains in and around the residential areas, 13 market complexes under the municipality premises, 2 government hospitals and 18 private hospitals, 1 civil district court and 1 criminal district court, 1 district library and 3 village libraries, 1 bus terminus and 1 rail-way station, 3 cinema halls, 2 theaters and 3 community halls.

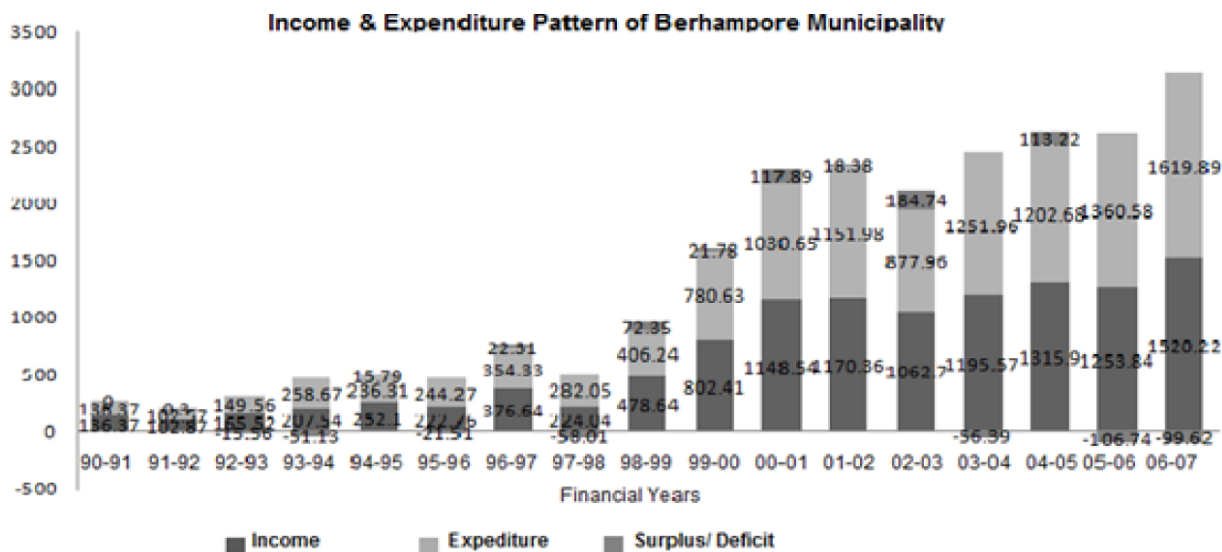


Figure 2. Pattern of income and expenditure of urban local body (ULB), India.

Table 1. Decadal growth rate of urban population in Berhampore town, 1901 to 2011.

Year	Urban Population	Growth Rate	Year	Urban Population	Growth Rate
1901	24397	--	1961	62317	+12.05
1911	26141	+07.16	1971	78909	+26.63
1921	26670	+2.02	1981	102311	+29.66
1931	27403	+2.75	1991	126400	+23.54
1941	41558	+5.65	2001	160163	+26.71
1951	55613	+33.82	2011	305609	+90.81

Source: Census of India, 1901, 2001, 2011; Computed by author.

Berhampore municipal town has 5 primary schools (under Berhampore Municipality), 90 primary schools, 4 upper-primary schools and 26 government-aided high schools (under West Bengal Board), 6 private schools, 3 degree colleges, 6 technical colleges, 1 medical college. Approximately 1,000,025 gallon drinking water supplied everyday by this Berhampore municipality. The concerned municipality uses 14 tractors, 13 tractor-trailors, 16 tripping-trailors, 1 lorry, 7 water tanks, 300 double-wheels borrows, 50 try-cycles, 11 pump machines, 2 cesspool emptiers, 1 night soil tank for garbage management. Among other vehicles used for various purposes by the municipality such as 2 road rollers, 2 ambulances, 1 bire, 1 car, 1 dozer (Berhampore Municipality, 2012; Figure 3).

**Status of urban amenities and service delivery**

For analyzing the status of civic amenities and service

delivery in class-I town, like Berhampore, the feedback of city dwellers gave importance and only positive response taken under consideration. Table 2, revealed the fact that the performance and infrastructure of Berhampore Municipality regarding specifically in criterion 5 and 4 (garbage management and management of drains/ sewerage) scored well in comparison to other criterions, that is, 47.50 and 42.35 respectively. In other words, garbage management and management of drains or sewerage were well in comparison to other amenities and service delivery in Berhampore town. The other kinds of amenities and service delivery, which were moderately good in quality, followed by the previous were health facility (36.50), construction and maintenance of city roads (26.80), street lightening (25.90). On the other hand, the criterion 9 and 7 (security aspect and traffic control) scored very poor, that is 11.10 and 10.05 respectively. On the other hand it may not be wrong to point out that, drinking water supply; town beautification, traffic control, construction and maintenance of parks and gardens were

### Relation between Expenditure of ULB and Satisfaction Level of Citizens:

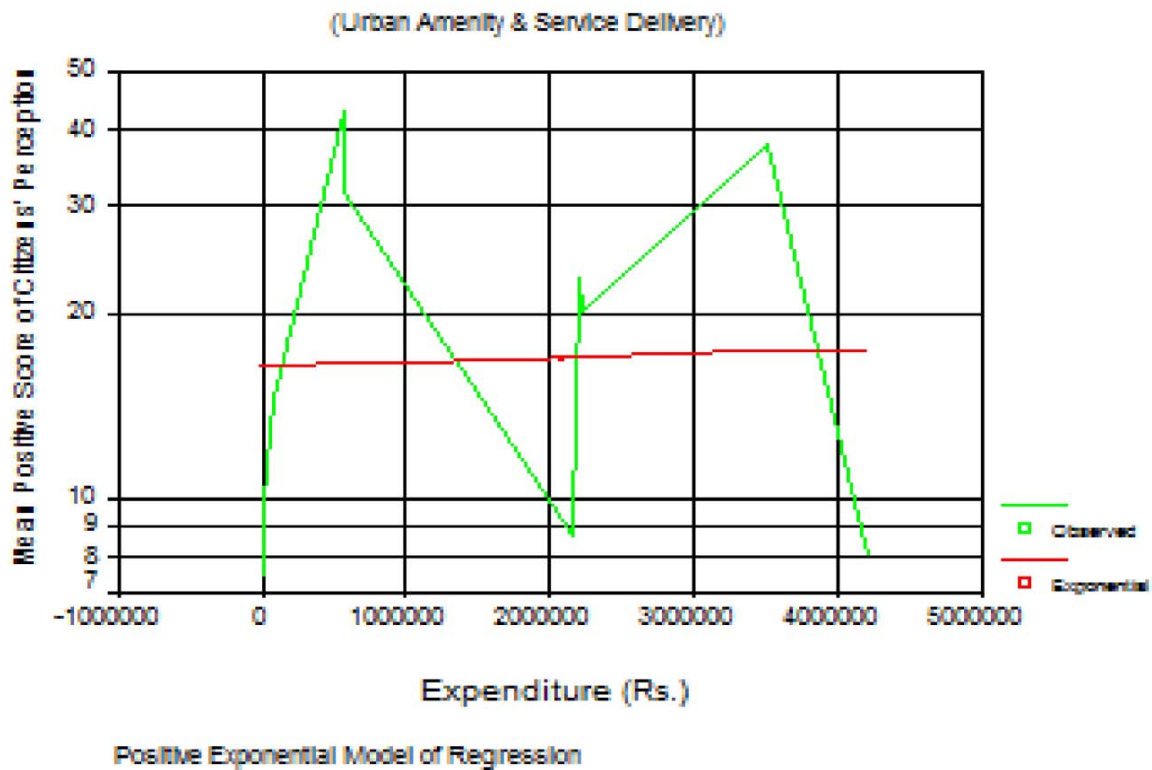


Figure 3. Perception of citizen regarding performance of ULB.

among weak performances made by Berhampore Municipality. So it can be said, in accordance of the attitude of the citizens, that the overall status of urban amenities and service delivery of this town was good (34.35), but not highly appreciable.

#### Choice of citizens' suggestions regarding amenities and service delivery

Very recently, the views or suggestions of stake holders regarding the solution problems at grass-root level become relevant as well as vital to social scientists, planners, and administrator globally. So the attitudes of citizens of Berhampore town towards choice between pair of suggestions, that is between suggestion one and two or two and four and so on, had been analyzed. A perusal of Table 3 showed that 274 respondents preferred the suggestion in serial number four that is "fixation of user charges to recover the operation and maintenance" to the suggestion serial number three which stated that "provision of monitoring system in case of infrastructural development as well as service delivery through the active participation of stakeholders". On the other hand,

259 respondents preferred the suggestion number two which stated that "involvement of the private sectors, Non-governmental organizations (NGO's) used group in the urban service through management contact under the exclusive purview of the public sector to improve urban service delivery" to the suggestion serial number six, that is "increasing plan allocation by state and central Govt. for the urban infrastructural development through a programme or Integrated Urban Infrastructural Development". In the same way it can be said that, 231 citizens preferred suggestion number six to suggestion number three. Again, 219 citizens preferred suggestion number three to suggestion number six and 170 citizens preferred suggestion number seven to suggestion number three. After that, 152 and 128 inhabitants of Berhampore town respectively preferred the suggestion number one to suggestion number six and suggestion number five to suggestion number six. The figure in case of suggestion eight to suggestion five was 91. A close examination of the response pattern of the citizens between suggestion number four to remaining seven suggestions were 271, 137, 115, 70, 56, 30 respondents preferred suggestion number five, six, two, one, eight, and seven respectively, for the development of amenities as well as service

**Table 2.** Status of urban amenity according to citizens' perception.

Se. No.	Criterion	Score				Positive response (mean) (std.dev.)
		Very good	Good	Not satisfactory	Unknown	
1	Health facility	26.5 (53)	46.5 (155)	9.7 (97)	0.046 (46)	36.50 (14.14)
2	Water supply	6.5 (13)	25.8 (86)	17.2 (172)	0.080 (80)	16.15 (13.65)
3	Construction and maintenance of roads	12.5 (25)	41.1 (137)	15.0 (150)	0.039 (39)	26.80 (20.22)
4	Management of drains and sewage	31.0 (62)	53.7 (179)	7.9 (79)	0.031 (31)	42.35 (16.05)
5	Garbage management	38.0 (76)	57.0 (190)	5.8 (58)	0.027 (27)	47.50 (13.44)
6	Street lightening	8.0 (16)	43.8 (146)	13.4 (134)	0.055 (55)	25.90 (25.31)
7	Traffic control	3.0 (6)	17.1 (57)	23.9 (239)	0.049 (49)	10.05 (9.97)
8	Construction and maintenance of parks and gardens	14.0 (28)	23.1 (77)	17.9 (179)	0.067 (67)	18.55 (6.43)
9	Security aspect	6.0 (12)	16.2 (54)	18.9 (189)	0.096 (96)	11.10 (7.21)
10	Town beautification	5.0 (10)	19.2 (64)	17.9 (179)	0.098 (98)	12.10 (10.04)
	<b>Grand Mean</b>	15.05	34.35	14.76	0.058	
	<b>Standard Deviation</b>	12.34	15.73	5.59	0.025	

Source: Primary data, *parenthesis shows the number of respondents*

delivery in Berhampore township. On the other hand, the number of respondents preferred suggestion number two to suggestions in serial number four; five, seven, three, eight and one were 118, 100, 82, 63, 39 and 18 respectively. In this way, from the Table 3 it can be realized in detail about the suggestion which was more important to the citizens as compared to other suggestions. But, this description did unable to clarify the picture about the most popular suggestion for the development of urban amenity and service delivery system in the study area properly. Table 4, provides the clear and scientific picture about the most popular suggestion.

### Ordering of preferences of suggestion

It is essential to derive most popular suggestion among other minor suggestions for further improvement of urban amenities and service delivery system in class-I town, like Berhampore. The total numbers of preferences for each of the eight suggestions had been taken into consideration in order of their preferences and finally the most popular

suggestion had been derived. After scientific calculation the ordering of preferences of the eight suggestions (Table 5) are as follows:

1. Most of the respondent suggested that the development of existing condition of urban amenity and service delivery in Berhampore town can only be possible through investment and allocation of funds for the development of amenity should be on priority basis or regional demand.
2. The second choice preferred by the citizens was increasing plan allocation by state and central government for the urban infrastructural development through a programme or Integrated Urban Infrastructural Development (IUID).
3. The third choice was left to the suggestion that provision of monitoring system in case of infrastructural development as well as service delivery through the active participation of stakeholders.
4. The fourth choice as proposed by the dwellers was fixation of user charges to recover the operation and maintenance especially pipe water uses, garbage creation, street lightening etc.

**Table 3.** Citizens' response to pattern regarding development of urban amenities.

Se. No.	Suggestion	Suggestion							
		1	2	3	4	5	6	7	8
1	Public sectors of ULB have very limited capacity to improve urban amenity and service provision. So it would be better to transfer the foresaid task fully to private sector.	--	61	105	28	101	152	65	26
2	Involvement of the private sectors, NGO's used group in the urban service through management contact under the exclusive purview of the public sector to improve urban service delivery.	18	--	63	118	100	259	82	39
3	Provision of monitoring system in case of infrastructural development as well as service delivery through the active participation of stakeholders.	98	57	--	85	198	219	97	63
4	Fixation of user charges to recover the operation and maintenance.	70	115	274	--	271	137	30	56
5	Investment and allocation of funds for the development of amenity should be on priority basis or regional demand.	60	73	94	88	--	128	35	74
6	Increasing plan allocation by state and central Govt. for the urban infrastructural development through a programme or Integrated Urban Infrastructural Development (IUID)	153	119	231	79	198	--	106	82
7	Legislative and institutional reforms to remove the mismatch between range of obligatory functions of municipal bodies and their ability to generate resource.	24	42	170	143	155	103	--	17
8	Provision of allocation of fund for special purpose/cases or zonal demand.	14	25	85	67	91	69	15	--
<b>Total</b>		<b>437</b>	<b>492</b>	<b>1022</b>	<b>608</b>	<b>1114</b>	<b>1067</b>	<b>430</b>	<b>357</b>

Source: Primary data

**Table 4.** Scientific ranking of suggestions for the development of urban amenities and planning

Suggestion	Mp	Zj	Rj	Rank Order
1	0.218	(-) 0.79	0.25	<b>6</b>
2	0.238	(-) 0.62	0.42	<b>5</b>
3	0.426	1.03	2.07	<b>3</b>
4	0.279	(-) 0.26	0.78	<b>4</b>
5	0.459	1.32	2.36	<b>1</b>
6	0.442	1.17	2.21	<b>2</b>
7	0.216	(-) 0.81	0.23	<b>7</b>
8	0.217	(-) 1.04	0.00	<b>8</b>

Source: Computed by author

**Table 5.** Scientific ranking of suggestions for development of urban amenities and planning

Suggestion	Mp	Zj	Rj	Rank order
1	0.299	(-) 0.79	0.25	<b>6</b>
2	0.256	(-) 0.62	0.42	<b>5</b>
3	0.472	1.03	2.07	<b>3</b>
4	0.303	(-) 0.26	0.78	<b>4</b>
5	0.510	1.32	2.36	<b>1</b>
6	0.491	1.17	2.21	<b>2</b>
7	0.230	(-) 0.81	0.23	<b>7</b>
8	0.208	(-) 1.04	0.00	<b>8</b>

Source: Computed by author

5. The fifth choice as proposed by the dwellers of Berhampore township was involvement of the private sectors, NGO's used group in the urban service through

management contact but the public sector have effusive task to improve urban service delivery.

6. The sixth choice as perceived by the citizens was public

sector of ULB have very limited capacity to improve urban amenity and service provision, so it would be better to transfer the foresaid task fully to private sector.

7. The seventh choice as perceived by the citizens was legislative and institutional reforms to remove the mismatch between range of obligatory functions of municipal bodies and their ability to generate resource.

8. The least preferred suggestion was the eighth suggestion in the serial (Table 3), which states that provision of allocation of fund for special purpose or cases or zonal demand.

## RECOMMENDATIONS

1. The grass-root government of urban area at first should evaluate the existed available urban infrastructure and service delivery and discovers the gap at micro-regional scale.

2. The fund allocation for improvement of urban amenities and service delivery system before policy making and implementation should take the views of stake holders who have the real knowledge regarding the problems and possible solutions.

3. The policy makers and planners should explore the ground truth and distributional gaps, regarding the foresaid issue, and the future plans should be made to fulfill the gaps and would be above the reach of socio-political interests.

4. The monitoring system, with active participation of citizens, should also be activate for further improvement of amenities and service delivery system in view of the good quality of urban environment.

## CONCLUSION

At an end, it may be concluded that the existing status and arrangement of urban infrastructure or amenity and provision of public service delivery in India's class-I town like Berhampore are averagely inadequate, over strained and pitiable structured. So there is an urgent need for the reconsideration of remedial measures for the development of service delivery and urban amenities as well. Although there happened to exist diversity on the comments of quality of urban amenity and service delivery system and also on choice of suggestion for further improvement of this existing situation from town to town, but in Berhampore town grossly most of the respondents feel that the status of urban amenity is good but not up to level of satisfaction. And the most negligible performances of foresaid ULB are water supply, traffic control, town beautification etc. After survey it is proved that the most preferable suggestion is further investment and allocation of funds for the development of amenity should be on priority basis or regional demand. On the opposite side,

the least preferable suggestion is provision of allocation of fund for special purpose/cases or zonal demand. Therefore, it is imperative for decision makers and planners to consider stake holders' perception regarding issue related to development of status of urban amenity and service delivery not only as remedial measure but also at the time of policy making.

## Conflict of Interests

The author has not declared any conflict of interests.

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## ANNEXURE - I

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Composite Standard Method propounded by J. P. Guilford (1954). The following steps have been followed in developing interval scale from the paired comparison ordinal data.

i) Column mean have been worked out applying the following formula.

$$M_p = \frac{C + .5nN}{n(N)}$$

Where,

$M_p$  = the mean proportion of columns

$C$  = the total number of choices for a given suggestion

$n$  = number of stimuli

$N$  = number of item in the sample

ii) The  $Z$  values for  $M_p$  are secured from the table giving the area under normal curve. When the  $M_p$  value is less than .5, the  $Z$  values is negative, and for all  $M_p$  values higher than .5 the values are positive.

iii) As the  $Z_j$  values represent an interval scale, zero is an arbitrary value. Hence, one can eliminate negative values by giving the value of zero to the lowest scale value and then adding the absolute value of this lowest scale value to all other scale items. This scale has been shown in  $R_j$  row in the Table 5.

In this way, interval scale has been derived from paired comparison data.

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