

**CITY DWELLERS' PERCEPTION ON URBAN ENVIRONMENTAL ISSUES IN
BARDDHAMAN MUNICIPALITY**

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Abstract

The main focus of the paper is to evaluate the impacts of environmental issues upon the urban city dwellers in Barddhaman. This paper is based on the empirical survey done with the help of qualitative data, collected from the primary sources. The perception of the individual resident on the management of respective urban centres, if measured, can give an approximate subjective evaluation of the quality of urban governance from the residents' own perspective. They provide not only a phenomenal experience but a directive for action also, and can be used as guidelines for strategy formulation for future urban planning.

Key words: Urbanization, Environmental issues, Urban governance, Peoples' perception

Introduction

The urban environment is a complex mixture of natural elements and the built environment. Any town's built environment includes its aesthetic and historical heritage. Here, physical environment is modified for human habitation and actions. The quality of urban environment is influenced by its geographical location; the scale and nature of human activities; the waste, emissions and ecological disruptions that local people cause with competence and accountability of the elected institutions. The urban environment is also influenced by the social and cultural components of the residents such as the values, behaviour, beliefs, knowledge, traits, laws, traditions etc.

The perception of the living environment by inhabitants is one of the important dimensions to be considered in town planning and administration, as it reflects the residents' reaction to the living environment. It is necessary to understand the residents' feelings about their residential environment. However the 'perception' is subjective and does not necessarily and always reflect the objective reality (Kulkarni, 1984). The perception about their living environment is influenced by a number of factors such as age, gender, marital status, family structure, economic status, levels of education, location of houses, occupation, duration of stay etc. in the present environment. It becomes inevitable to the decision makers or town planners to standardise the living urban environment in terms of certain attributes for making it comparable with the respondents' perceived environment.

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Study Area

Barddhaman is one of the oldest towns of West Bengal, older even than Kolkata. It's name is frequently mentioned in the old literatures also. Now, it is an important town of South Bengal in view of economy and communication system of the state. Being located on the north bank of the Damodar River (23⁰14' N and 87⁰ 51' E), the town was a nodal point from the very early period and was a centre of administration in the period of mediaeval India. The local self-government of the town in the form of Barddhaman Municipality was established in 1865, when the Municipality covered an area of 8.4 square mile. Now, the Municipality covers an area of 23.04 square kilometres with a population of 3,14,265 distributed in 35 wards (Census 2011).

Objectives

The aims of this research are to develop an empirically-based assessment about recent environmental issues due to rapid urbanization in Barddhaman Municipal Areas.

This paper has been designed to achieve the following objectives:

- To trace the physical as well as social environmental issues encountered by the inhabitants due to rapid urbanization and industrialization;
- To analyze the social and cultural status as well as behavioural patterns of the urban residents of the study area;
- To evaluate the level of awareness of the city dwellers regarding issues related to urbanization as well as industrialization;
- To assess peoples' perception on matters relating to environmental problems.

Methodology

This micro level empirical study is based on both primary as well as secondary data sources. Primary data have been collected through structured and in-depth interviews based on questionnaire containing pre-mediated questions. Apart from the primary data, the present study considers secondary data obtained from the Office of West Bengal Pollution Control Board. Four wards based on the availability of different infrastructure, industrial clustering, concentration of Slum dwellers etc. have been selected in Barddhaman Municipality. These are as follows:

- Central Business District with good infrastructure – Ward No. 09
- Peripheral Residential ward with average infrastructure - Ward no. 26
- Industrial Landscape dominated ward –Ward No. 22
- Slum dominated ward –Ward No.04

The selection of the respondents was made from the voters' list by random sampling. The survey has been carried out in four different municipal wards selecting 50 from each ward making a total of 200 respondents. For finding out the perception of city dwellers about urban environment, a

Likert-type scale has been used and divided the respondents in the relevant cases into three categories, i.e. high, medium, low marked on the basis of the scores obtained by them.

City Dwellers' perception regarding Environmental Change

Recently urbanization and the ever increasing population in most of the urban centres has resulted drastic changes in the existing land use pattern in and around those centres, ultimately affecting the urban environment. Ecologically, a city can be considered as a built landscape of the biosphere, often referred to as a techno-ecosystem, which is highly energy intensive in nature. Due to poor maintenance strategy, these urban centres face various problems related to environmental pollution, housing, transport system, health infrastructure and other civic amenities. Though information about the existing problems of urban environment for proper environmental management can be obtained from a variety of sources, it is equally important to consult the residents too, for their perception about the same.

The perception of the urban inhabitants regarding their living environment, their attitude towards the role of the urban governance and also public involvement and participation in governance activity all are very much helpful in developing a diverse and adoptable strategy for sustainable urban environment management. The importance of broad public participation in decision-making with regard to sustainable development of environment is now being recognized in many developed as well as developing countries. The engagement of the local voice within the agenda setting may develop policy makers' ability to improve the quality of life of the local residents (White and Hunter, 2005). Various socio-economic characteristics, like occupation, education, age group, residential location, residence type, fertility ratio, migration characteristics etc. exert some influence on the varied perception for a common environment. Over the years, enormous growth of population along with changing structure of urban economy and infrastructure has resulted in a continuous alteration in the land use pattern of the town. In turn, land use change coupled with other factors like vehicular growth, unchecked migration, illegal construction, diverse socio-cultural disparities, increasing use of material and energy resources, different criminal activities have significantly affected the urban environment and status of urban infrastructure in the town.

This study is an attempt to explore the perception of city dwellers on different aspects of urban environment in Barddhaman municipal area and to draw a comparative picture regarding the perceived problems associated with the urban environment and infrastructure, among the inhabitants in different residential areas of the town. Further, this paper also aims at exploring the socio-economic correlates of the existing perception differentials regarding the state of urban environment, among the urbanites.

Table 1: Percentage distribution of respondents against selected background characteristics

Sl. No	Variable/ Category	Percentage
1	Age of the respondent 18 to 34 Years 35 to 54 Years 55 to 75 Years	30.00 40.00 30.00
2	Educational Level Illiterate Primary education Secondary education Graduates Others	09.00 25.00 11.00 37.00 18.00
3	Migration Status Migrants Native	52.00 48.00

Background Characteristics of the Respondents

The background characteristics of the interviewed residents are shown in table 1. The total sample size for the study was 200, out of which 30.00 percent each were of age groups 18 - 34 years and 55 – 75 years. The majority of the population (40.00 percent) was in between 35 years and 54 years of age. As far as educational level was concerned, the respondents were divided in to five categories: Illiterate, Primary education, Madhyamik education, Graduates and Others. It was found that about 09.00 percent of the sample was illiterate, while 25.00 percent of respondents had poor educational level. In this study, migrants outnumbered the natives marginally. Almost 40.00 percent of the samples residents had their own house either legal or illegal as in the case of few slum dwellers.

Results of perception study in Barddhaman Municipality

Environmental Problems

As regard to various environmental problems, air pollution was perceived to be a greater problem in comparison to other types of pollution in this town. While only 10.50 percent respondent perceived the air pollution level in the town to be low, as high as 56.00 percent and 31.00 percent had similar opinion about water pollution and noise pollution respectively. Almost 90.00 percent of the respondents considered that the level of solid waste pollution in the town was at medium or high level. Though air pollution and solid waste pollution were being perceived as two major

environmental concerns in Bardhaman municipality, more than 25.00 percent of the respondents were also of the opinion that noise level was in a critical stage in the town. However, the biggest problem, which was considered as an alarming one with respect to any one of the above-mentioned problems, was mosquito prevalence. About 77.00 percent of the respondents perceived mosquito prevalence to be the vital problem for the town. Beside these five indicators used for this analysis, another crucial element was found to be water logging. In fact, the study revealed that as high as 46.00 percent of the respondents perceived the problem of water logging in the town to be at a moderate and 23.50 percent perceived at a high level.

Table 2: Percentage of respondents against perceived categories of various environmental problems in Bardhaman Municipality

Sl. No.	Environmental Problems	Percentage of respondents		
		Low	Medium	High
1	Air Pollution	10.50	62.50	27.00
2	Water Pollution	56.00	32.50	11.50
3	Noise Pollution	31.00	42.50	26.50
4	Solid Waste Pollution	08.50	37.00	54.50
5	Water Logging	30.50	46.00	23.50
6	Mosquito Prevalence	08.50	14.50	77.00

Source: Field survey Conducted by Author, 2013-14

Transportation Problems

Over dependence of personal vehicles for different activities has become a norm in many of the urban dwellers in Bardhaman town. This particular tendency must have been able to reduce the requirement of public transport system in Bardhaman and that was the reason why 22.50 percent of the respondents did not think inadequacy of public transportation facility as a major problem in the city. Another finding noticed in the study was related to road quality of this town. As portrayed in Table 3, only 33.50 percent respondents perceived narrow and congested road to be a big problem in this town. However, problem of parking facility and traffic jam were expected to affect the city dwellers' perception about road transport negatively. The biggest problem related to transportation system in the town was found to be parking and 65.00 percent of the respondent perceived parking problem in the town to be at very high level, seeking urgent attention by the planners. Absence of parking areas for their cars and time loss in the traffic jam might be the reasons behind such a response. Growing problems of traffic jam, congestion and road accident were reported as the other major issues, which had been in a critical state as far as city dwellers' perception in Bardhaman was concerned.

However, surprisingly, most of the respondents of slum areas in Bardhaman town were satisfied with the road transport quality. Affluent residents of the good residential area were least satisfied

with the service. Residents of the industrial area were also not at all happy with the road transportation clearly pointing towards the absence of proper maintenance of roads.

Table 3: Percentage of Respondents against Perceived Categories of Various Transportation Problems in Barddhaman Town

Sl. No.	Transportation Problem	Percentage of respondents		
		Low	High	Very High
1	Inadequate Public Transportation	22.50	17.00	60.50
2	Narrow and Congested Roads	30.00	36.50	33.50
3	Traffic Jam	07.50	24.00	68.50
4	Parking Problem	15.00	20.00	65.00
5	Road Accident	27.50	35.50	37.00

Source: Field survey Conducted by Author, 2013-14

Civic Amenities

Though it is expected that, there would be variation in the provision of civic amenities in different parts of the town, an overall statistics, as represented in Table 4, suggests that number of people feeling satisfied with the services has been more than that, who are not satisfied. Among different civic amenities in the city, electric supply and water supply were the two with which the city dwellers were mostly satisfied. About 87.00 percent of the respondents were satisfied with the electricity supply and 74.50 percent of respondents felt satisfied with supply of drinking water in Barddhaman town. Garbage disposal, Streetlight provision and maintenance, and quality of parks were considered to be vital issue and about half of the sample respondents express their moderate satisfaction with all these services. However, the biggest problem of the city, as perceived by the residents was drainage system, with which as high as 47.50 percent of the respondents were not at all satisfied.

Table 4: Percentage distribution of respondents feeling satisfied with civic amenities in Barddhaman Municipality

Sl. No.	Civic Amenities	Percentage of Respondent
1	Drinking water supply	74.5
2	Electric Supply	87
3	Garbage Collection	50
4	Street Light	52.5
5	Drainage System	52.5
6	Park Quality	51

Source: Field Survey by Author, 2013-14

However, there had been a wide disparity in perceived service provisions between slum and non-slum households. While all the residents from good residential areas were highly satisfied with the civic facilities of the town, not a single respondent was of similar opinion in the slum. Similar observations were also made with respect to educational level and income source. Daily wage earners, who were supposed to be staying mostly in the slums, were less satisfied with the services in comparison to the rest of the respondents.

Conclusion

It is well known that for achieving better quality of life, city development must match with the growth of city population and its requirement. Therefore, availability of infrastructure is a very important issue and equally important is the peoples' perception regarding the process of developmental activities, as perception decides the level of use of available amenities and reflects the level of satisfaction too. From this analysis, as far as city dwellers perception was concerned, a few emerging issues of concern came out, in which the city seemed to be at a critical stage. Excessive transportation problem, lack of sufficient electric supply, unavailability of basic infrastructure such as sewerage and drainage system, poor collection and disposal of urban wastes are notable. In case of slum dwellers, the situation is more pathetic. Therefore, with the expansion of urban area and its population, there is a need to increase the infrastructural facilities in terms of transport and communication, water supply, sanitation etc. so that it could cope with the increasing requirement of the urban population. Immediate actions by the Barddhaman Municipal Authority and Barddhaman Development Authority (BDA) are to be taken for sustainable 'eco-city' development and to facilitate the requirements of the urban inhabitants in Barddhaman town.

References

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