



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Physical And Social Infrastructure Of Bankura Municipal Corporation - A Geographical Analysis

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Abstract- Bankura city serves as both the district's the head office town and headquarters. It is situated in the center of the bankura, the region's heart. This is also well connected to other parts of Bankura. This region is controlled by the municipality. This area's physical, social, and other infrastructure is well advanced. Bankura city has developed in many ways as it has grown. The region is well connected by rail and road, making it convenient for residents to travel to other cities, notably Kolkata. There are 189 schools, which include high school, primary school, ICDS school, and junior high. The literacy rate is 78.50 percent (according to on the 2011 census). Furthermore, the healthcare facilities are incredibly modern. Patients from various parts of Bankura district come here for better treatment. Other recreational amenities in the area are similarly well-developed. There are three public libraries, five parks, and nine marketplaces. This region has a high level of physical and social infrastructure development.

Keywords –Bankura Municipal Corporation, Physical Infrastructure, Social Infrastructure, Other Infrastructure.

Introduction- As the human population increases, people start migrating from one place to another. Generally, this type of migration is more from rural to urban areas. Due to this, the rural population continues to decline, and people migrate to cities for various job opportunities and other facilities. So the population of the city gradually increased, and thus a city town and municipality area were formed.

In simpler words, urbanization can be defined as “a process that reveals itself through temporal, spatial, and sectoral changes in the demographic, social, economic, technological, and environmental aspects of life in a given society. Urbanization is a progressive concentration of population in an urban unit (Kingsley Davis, 1965).

In order to have a better understanding of the urbanization process in India, it would be appropriate to examine which settlements are treated as urban by the Census of India. There is no standard definition of urban; it varies from country to country (United Nations 2009).

India's urban areas are defined on the basis of two criteria. First, the state government grants municipal status—corporation, municipal council, notified town area committee, nagar panchayat, etc.—to a settlement. According settlements are known as statutory or municipal towns in the census definition of urban areas.

Second, if a settlement does not have an urban civic status, but satisfies demographic and economic criteria, like a population of more than 5,000, a density of 400 persons per square kilometer, and a 75% male workforce in the non-agricultural sector, it can be declared urban. India experiences the most characteristic features of urbanization among developing countries. According to the 2011 Census, urbanization in India has increased at a faster rate than expected. This is an overturn of the declining trend of the level of urbanization as observed during the 1980s and 1990s.

Another important aspect is that, for the first time since independence, the absolute increase in the urban population was higher than that in the rural population. This can be attributed to the many-fold increase in the number of towns and also the concentration of population residing in urban areas.

The number of urban agglomerations and towns has grown from 1827 in 1901 to 7935 in 2011; while, the total population in urban areas has increased from 2.58 crores in 1901 to 37.71 crores in 2011. This data clearly shows that India is experiencing a gradual increase in urbanization trends. The following sections discuss the trends of urbanization that India is experiencing. But before that, one needs to understand the concept of urbanization and urban areas as discussed in the next section.

India's urban areas are defined on the basis of the state government's grants of municipal status (corporation, municipal council, notified town area committee, nagar panchayat, etc.). Urban administration is also known as municipal governance. It takes care of all the duties that seek the comfortability of people living in urban areas. The first urban administration started in Madras in 1687. Later in 1726, the Calcutta municipal corporation and the Bombay municipal corporation were formed. As of now, the BMC is the largest municipal corporation in India.

The structure of urban administration, or multiple governance, may consist of departments and people. The Municipal Corporation is the largest and topmost local body in urban administration. If the city contains more than three lakh people, then the state government will create a municipal corporation for that city and give authority to look after the city. The people of that particular area may reach out to this municipal corporation for any kind of query related to that area.

Municipal corporations serve larger urban areas, Municipal governments are autonomous authorities that are elected directly by the people. They are responsible for a number of tasks, including:

Water management, road construction, Town planning, development planning for socio-economic growth, Providing good healthcare, Maintaining cleanliness, ensuring good sanitation in public places, Education department, electricity department, sewage disposal undertaking and the Housing Board.

Municipal corporations carry out their functions through well-organized divisions or departments. These departments include: the water supply and sewage disposal undertaking, the housing board, the education department, and the electricity department.

In 1865, the Bankura Municipal Corporation came into existence. Its total area is 19.06 square kilometers. The Bankura Municipal Area is geographically significant. Various roads and railways connect it with other cities and districts. Durgapur City is located just 35 kilometers from Bankura City. Which is known as a major industrial city in West Bengal, India.

There are 29807 households in Bankura City, and 23 wards make up the town.

As per the 2011 census in India, Bankura has a population of 137386, of which 69843 are males and 67543 are females.

Bankura municipality is a subdivision of West Bengal's Bankura district. The Bankura municipality and eight community development blocks comprise it.

The municipality has several goals, including:

1. Enforcing restrictions on building activity on either side of the road.
2. Developing residential sites outside existing settlements.
3. Removing encroachments on public roads.
4. Improving household and population sectors such as personal health hygiene , socioeconomic condition, and education.

Objectives-

1. To study the Physical infrastructure, like Road network.
2. To study the Water supply related fact.
3. To study the Waste management treatment system and the current situation.
4. To study the Sewerage and sanitation systems.
5. To study Different social infrastructure and their current situation.
6. To study the Medical and Educational features in the study area.

Methodology-

We need to gather various kinds of information about the location. We have gathered the majority of the data we have needed for this project. The methods are both qualitative and quantitative applied in this survey.

1. There are different types of books and related journals.
2. Different types of websites.
3. The office of the Bankura Municipality.
4. Bankura District Statistical Handbook

Their research, statistical analysis, and explanation followed the collection of data from the aforementioned sources. Over the years, we have occasionally compared one topic to another.

Location of the study area- Bankura Municipality is located in the heart of Bankura district. This area is known as the "Rarh" region. A large portion of the Medinipur area falls under this division. Bankura town may be found at these coordinates: 87°3'36" North Latitude and 23°14'24" East Longitude. Located in the heart of Bankura district, it serves as the district headquarters. Burdwan is to the district's northeast and north. To the southwest lies Medinipur, and to the southeast is Hooghly District. Situated in the Purulia region. The Damodar River, which divides the Burdwan and Bankura districts, is a well-known feature of the area. The River Damodar borders this area to the north.

Infrastructure

The term "infrastructure" was originally introduced in the late 1880s, originating in French. It is formed from the combination of the prefix "infra-," meaning underneath, and the word "structure," referring to a building or construction. Infrastructure refers to the underlying framework that supports the development and functioning of an economy.

Infrastructure encompasses a diverse range of systems and structures that necessitate physical components, such as the electrical grid spanning a city, state, or country.

Various types of infrastructure are critical for BMC development. The infrastructure that has contributed to the development of the BMC region is as follows:

Physical infrastructure, Social infrastructure, Recreational and cultural facilities and other facilities

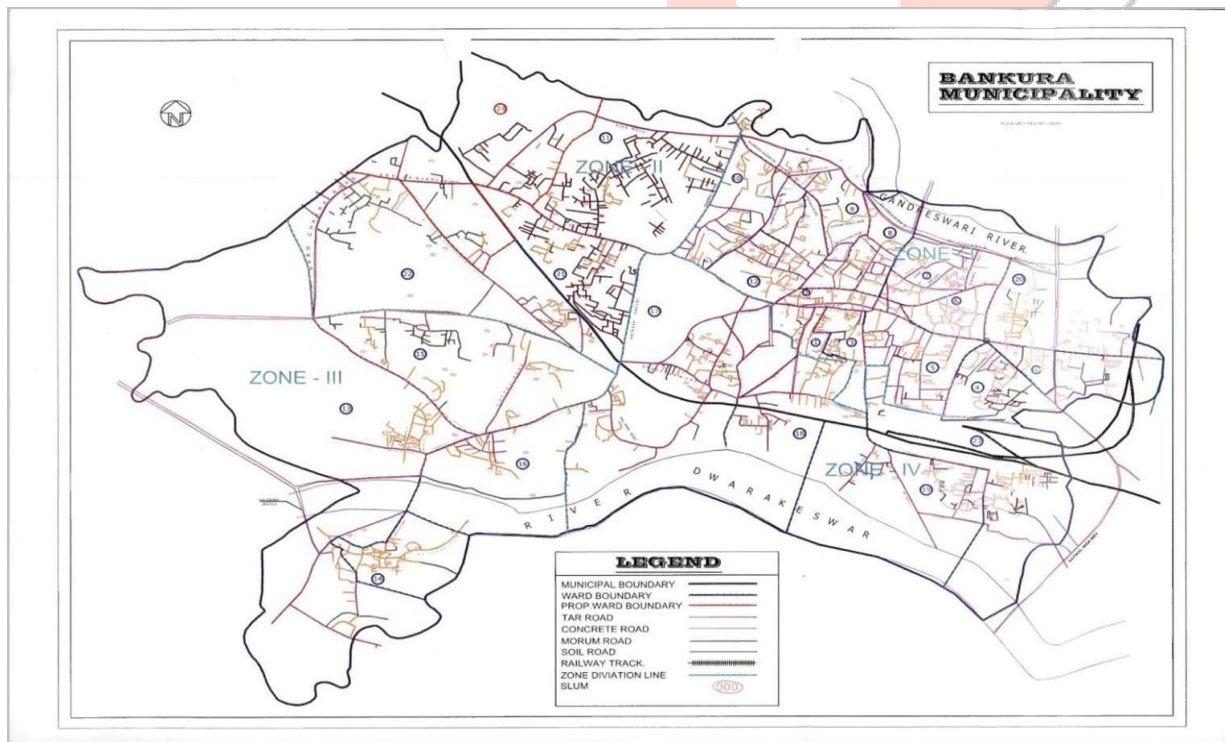
Physical infrastructure- Physical infrastructure is the main driving force behind a nation's economic advancement. Additionally, it functions as a municipal corporation. It ensures the efficient operation of the economy. Physical infrastructure plays a vital role in facilitating a nation's economic progress. It has the potential to revolutionize a country's economy by facilitating manufacturing and distribution processes.

Examples of physical infrastructure include: roads, public transportation, water supply, etc.

Physical infrastructure of BMC

Important physical infrastructures of BMC are-

- 1. Roads-** Roads are very important for the development of any region. Roads are a significant component of physical infrastructure. According to BMC data, the total road length is 257 km. From 2017 to 2024, the construction of 318 kilometers of roads took place. Out of which, 40 percent of the roads have been repaired, and the remaining 60 percent have been newly constructed. On the other hand, in 2021, the highest number of roads will have been constructed.



Source- Bankura Municipality office

According to a data of BMC, the total amount of metalled road is 105.85 km, and the amount of non metalled road is 141.15 km. Out of 23 wards of BMC, none of the wards have completed this road. This implies that not all wards have undergone road expansion. Many wards still lack paved roads.

- 2. Water Supply--** It is essential for every city to have water connections for drinking water and other purposes. Data from the BMC region shows that water connection was given highest in 2014 to On the other hand, the amount of water connection from 2017 to 2018 was the lowest.

Its important facts are:

1. Number of water treatment plants: nil
2. Number of deep tube wells: nil
3. Number of hand tubewells: 950
4. Number of street stand posts: 3000
5. length of the water pipeline: 170 km
6. Number of underground reservoirs: 5
7. Number of overhead reservoir- 7
8. Number of wards fully covered by the water supply pipeline: 24
9. Number of houses connected to the water supply network-14024

- 3. Street light--** Street lights are very important in the development of any city. Due to the convenience of street lights, there are considerable benefits in the city's business, work, education, etc. Street lights also play an important role in BMC area development. Moreover, its role is quite important in the beautification of the city. Its important facts are—

1. Number of light post-8000
2. Number of high mast like post- 6
3. Number of Trident light post- 57
4. Number of other ornamental light post- 1
5. Number of wards covered with light post-23 wards

- 4. Waste management--** waste management is the process of managing waste from its source to its final destination, including collection, transportation, processing, recycling, and disposal.

The urban solid waste problems are growing exponentially in the cities and urban centers of this country. This detailed project report on the on the solid waste management system for the BMC has been prepared for improvement of the present solid waste management system of the town and also for proper surveillance and sustainability of the system.

Some important information about solid waste management project-

1. Domestic Waste- 37.78 metric ton
2. Market Waste- 21.00 metric ton
3. Agriculture Waste- 0.50 metric ton
4. Clinical Waste- 1.83 metric ton

Source -- Bankura Municipal Corporation

From the above information, we know about the production of different types of waste in the city.

The total quantity of Waste generated per day in BMC-

1. Domestic Areas- 37781 kg
2. Wholesale/Daily Market- 21000 kg
3. Agriculture Area-500 kg
4. Railway Station- 500 kg
5. Bus Stand -100 kg
6. Street Sweepings- 500kg
7. Drain Cleanings-300 kg
8. Cess Pool- 600 kg
9. Clinical Waste- 1830 kg

The total quantity of biodegradable and non-biodegradable waste-

1. Total biodegradable Waste- 40569 kg/ day
2. Total Non Biodegradable Waste- 22542 kg/ day

Source --Bankura Municipality office

- 5. Sewerage and Sanitation** - Drainage system is used to drain the dirty water and rainwater from the house. The total length of drains in the BMC region is 513.17 km, out of which the length of the Kutchra drain is 211 km and the length of the Pucca drain is 126.17 km.

In the case of sewerage and sanitation, the information available is-

1. Number of sanitary latrine constructed - 30
2. Number of family provided with sanitary latrine under ILCS+ IHSDP(together)-1320
3. Number of community latrine - 16

The flooding water drain in the slums will channel the water into the primary drainage system of the town, which eventually flows to the outfall point located around 1 km away. At the outfall point, there is a sump to collect the water before it is discharged.

Social Infrastructure Of BMC

Social infrastructure is a collection of facilities, spaces, services, and networks that support a community's quality of life and well-being. It includes the organizations, places, and spaces that enable communities to create social connections.

There are different types of social infrastructure is Education system, Medical facilities, Cultural facilities etc.

1. **Education system** - BMC area is quite advanced in terms of educational facilities. Students from surrounding areas come here to study. The literacy rate of BMC region is 78.50 % (2011 census), out of which the number of males is 58178 and the number of females is 49679.

1. Number of Higher Secondary School (Municipal)- 1

2 Number of Higher Secondary School (others)- 15

3. Number of secondary schools (others)- 4

4. Number of primary schools (Municipal)- 4

5. Number of primary school (others)- 81

6. Number of ICDS centre- 83

7. Number of Junior High School- 1

BMC region is divided into seven educational clusters. In order to easily control various aspects related to education, these are-

Cluster Wise Schools In BMC

There are total seven school clusters in BMC region ward wise. Their names are given below-

Ward No	Cluster Name
1. 1,2,17,18	Gopinathpur PS
2. 11, 15, 21	Kendua Girls H.S
3. 13, 14, 16, 22	Lokepur HS
4. 3, 5, 19, 23	S.S. Pal Hs. Crc
5. 4, 6, 7, 20	Indira PS.
6. 8, 9, 10, 12	Municipal HS.
7. Bankura Sadar (e)	

Source - Bankura Municipality

CLUSTERWISE SCHOOL FACILITIES

CLUSTER NAME	GOPINATHPUR CLUSTER	KENDUA GIRLS H.S. CLUSTER	LOKEPUR H.S. CLUSTER	S.S.PAL H.S. Crc CLUSTER	INDIRA P.S. CLUSTER	MUNICIPAL H.S. CLUSTER	SADAR (e) CLUSTER	Total
Male teachers. --	39	15	69	54	87	104	4	372
Female teachers. --	48	110	73	85	57	106	3	482
School type. Co-ed—	1	8	23	19	17	22	1	108
Boys –	1		1	0	1	2	0	5
Classroom --	83	87	102	83	103	137	7	602
Computer aided learning. Yes--	1		2	0	0	4	0	6
No--	19	13	23	20	18	23	1	117
Library Yes--	15	10	21	17	18	23	1	105
No--	4	3	4	3	0	4	0	18

SOURCE—Municipality Office

List of Wards in BMC with Literacy Rate

Ward	Literacy
Bankura (M) WARD NO.-0001	86.85%
Bankura (M) WARD NO.-0002	87.13%
Bankura (M) WARD NO.-0003	81.41%
Bankura (M) WARD NO.-0004	71.46%
Bankura (M) WARD NO.-0005	82.62%
Bankura (M) WARD NO.-0006	78.22%
Bankura (M) WARD NO.-0007	76.64%
Bankura (M) WARD NO.-0008	81.5%
Bankura (M) WARD NO.-0009	80.18%
Bankura (M) WARD NO.-0010	86.12%
Bankura (M) WARD NO.-0011	87.78%
Bankura (M) WARD NO.-0012	75.65%
Bankura (M) WARD NO.-0013	79.87%
Bankura (M) WARD NO.-0014	83.03%
Bankura (M) WARD NO.-0015	76.4%
Bankura (M) WARD NO.-0016	76.08%
Bankura (M) WARD NO.-0017	78.76%
Bankura (M) WARD NO.-0018	80.26%
Bankura (M) WARD NO.-0019	57.69%
Bankura (M) WARD NO.-0020	76.49%
Bankura (M) WARD NO.-0021	84.19%

Ward	Literacy
Bankura (M) WARD NO.-0022	86.3%
Bankura (M) WARD NO.-0023	65%

2. Medical Facilities- The most important facility of social infrastructure is the medical facility, which has a direct impact on people. The medical facilities provided in BMC area are—

1. No. of Hospital (Govt. + Others)-1
2. No. of Municipal Maternity Home-Nil
3. No. of Regional Diagnostic Centre-1
4. No. of Extended Specialist Out Patient Department-2
5. No. of Municipal Health Sub-Centre-6
6. No. of Municipal Health Administrative Unit -1
7. No. of Municipal Dispensaries-7
8. No. of Municipal Ambulances-2
9. No. of Hearse Car-1

3. Other Infrastructure of BMC

Apart from physical and social infrastructure, there are various other types of infrastructure that have helped the BMC area in development. These infrastructures include-

1. Public library-3
2. Free Reading Room-3
3. Stadium -1
4. Park -5
5. Playground -2
6. Community Hall-2
7. Market -9
8. Burning Ghat-7
9. Bus Terminus-1
10. Guest House-1

Conclusion- Although the physical, social and other infrastructure of the BMC region is quite advanced as compared to other cities of Bankura district, there are deficiencies in some areas. Among them, roads, drainage systems, sanitation, and waste management are important.

There are many places in the BMC area where paved roads are lacking. On the other hand, many places become submerged due to a lack of drainage systems during monsoons.

A major problem in the education system is that most of the schools here lack computer aided learning. Moreover, the teacher-student ratio is not correct. There is also a considerable deficiency in medical facilities. Where the number of beds and the number of ambulances are very low.

Moreover, among other infrastructure, the number of public libraries, stadiums, playgrounds, and guest houses is not enough. If all these problems can be solved, the living conditions of the people in the region can be significantly improved, and the environmental aspect will also be improved.

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