

Transforming Bhilwara City of Rajasthan into A Smart City: Analysis of Efforts and Challenges



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Abstract

Change is the law of nature. Development cannot be imagined without bringing about changes in the prevailing systems. Humans in their journey of development, have made various types of discoveries and inventions due to many progressive efforts. To make their lives free from complications and to make it convenient, development-oriented humans have established new cities, which have developed and transformed into metros and megacities. There has been a continuous increase in services in these developing cities and metros with time. In such a situation, for easy supply of basic needs like education, employment, medicine, electricity, water, the rate of immigration from rural areas started increasing in these cities. Due to the rapid immigration, the burden on the resources available there also started increasing rapidly and within no time those cities started facing various types of problems like pollution, disorganized transportation, slums, energy crisis, drinking water crisis, unemployment, inflation, moral decline of the society, became the focal point of crime etc. Under these problems, along with increasing urbanization, with the aim of bringing qualitative improvement in the life of the citizens living in them, a new concept was born which is called 'Smart City'. In the presented research paper, the efforts being made towards transforming Bhilwara city of southern Rajasthan into a smart city and the existing challenges have been analyzed. Hence, primary and secondary data have been used.

Keywords: Smart City, Bhilwara, Urbanization, Infrastructure, Planned Development

Introduction

The meaning of the term 'smart' can be understood as efficiency, well-organized situation and being attractive. In such a situation, the meaning of smart city is that which possesses physically, institutionally, socially and economically strong infrastructure and through the application of smart solutions, they ensure a decent life to their citizens by providing them with a quality, clean and sustainable environment. In order to meet the important needs of the citizens living in these cities and to bring qualitative improvement in their lives, various series of changes are used like capital investment, information technology, town

planning, public-private partnership (PPP) etc.

Smart city is taken as a solution to urban problems in many ways like availability of drinking water, development of health and education facilities, development of public parks, open air Gymnasium, smart toilets, smart roads, public transport system, parking spaces etc. This is the reason why the topic of smart city has been relevant in every era and every civilization according to the then needs and circumstances. Harappa, Mohenjodaro and Kalibanga among the cities of Indus Valley civilization, Pataliputra and Vijayanagar among the cities of ancient India, Jaipur among the pre-independence cities, Chan-

digarh among the post-independence cities and Amaravati among the modern cities represent smart cities. However, the term smart city was officially used by Professor Rudolf Giffinger of Vienna University of Technology, Austria in the year 2007 during his research work 'Assessment of the impacts of the European Union on the quality of urban life' (Information Bulletin, Lok Sabha Secretariat, 2015).

Study Area

Bhilwara city lies in South-east Rajasthan has been chosen for the presented research work. Bhilwara city is located at the intersection points; 25°35' N latitude and 74°64' E longitude (Hydrological Atlas, 2013). River Kothari a tributary of River Banas, flows through the north of the city (Fig: 1.1).

According to the Census-2011, 31 percent of India's population lives in cities and its contribution

to the country's Gross Domestic Product (GDP) is 63 percent (Smart Cities Mission). According to an estimate, by the year 2030, about 40 percent of the country's population will live in cities, while the contribution of this population to the country's GDP will be 75 percent (Fig: 1.2). On the basis of these data, the increasing role of cities in the economic progress of the country can be estimated. The percentage of urban population in total population of Rajasthan is given in the table 1.1 and fig: 1.4. It is estimated that percentage of urban population in Rajasthan will reach at 27.74 % in 2031 (Economic Review, 2023-24). Bhilwara city ranks 7th in Rajasthan in terms of urban population size, after Jaipur, Jodhpur, Kota, Bikaner, Ajmer and Udaipur (Economic Review, 2023-24). However, the projected urban population of Bhilwara city is estimated to reach about 6,23,000 in 2031 (Fig: 1.3) (Bhilwara town population census 2011-24).

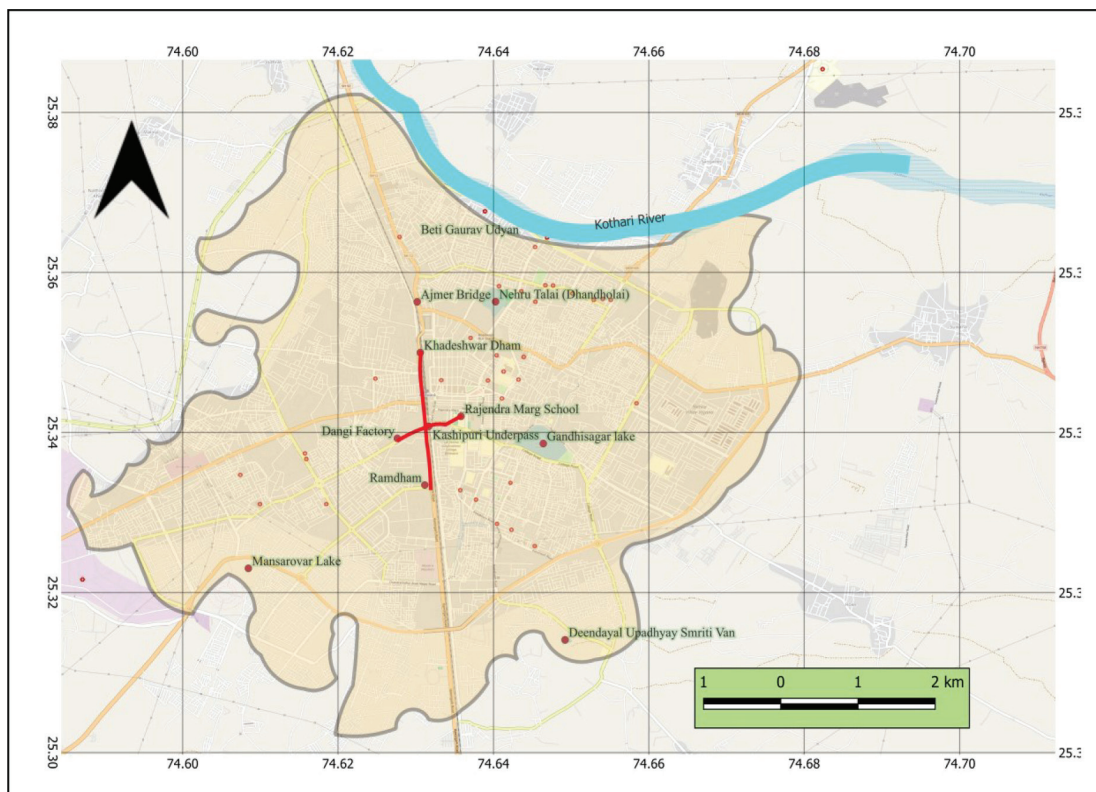


Fig: 1: Bhilwara City Map

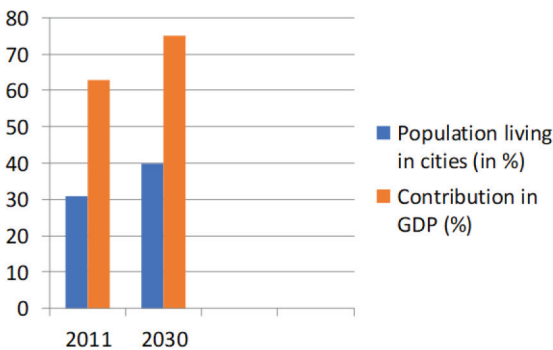


Fig. 2: Population of India living in Cities and its contribution in GDP

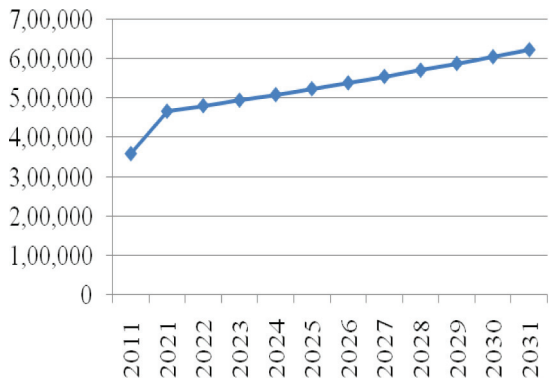


Fig. 3: Projected Urban Population of Bhilwara City (Raj.)

In such circumstances, giving importance to urbanization and planned development of cities, 'Smart City Mission' was started in the entire country on 25 June 2015 by the Ministry of Urban Development, GOI (Smart Cities Mission-2015). Under this program, it was decided to develop 100 selected cities of the country as smart cities. Four cities of Rajasthan namely Jaipur, Ajmer, Kota and Udaipur are also included in these 100 cities (Smart Cities Mission-2015). Although, despite of the high urban population Bhilwara city of Rajasthan has not been selected among these, but due to the efforts of the state government, a 'Mega Action Plan' worth Rs. 250 crores have been made to develop Bhilwara a smart city (Bhilwara Patrika-2022). Under this plan, it has been decided to lay underground power lines in old Bhilwara city, widening of Ajmer bridge, expansion and beautification of Gangapur intersection and jail intersection, ex-

pansion of Kashipuri underpass, beautification of Gandhisagar reservoir, Chamunda Mata temple and Harni Mahadev temple.

Infrastructure Available in Bhilwara City

Bhilwara is an economically prosperous city, possesses quality educational institutions, advanced hospitals, developed markets, shopping malls, modern cinemas, picturesque gardens, delightful lakes, hotels, cafes etc. In such a situation, many businessmen and common people from nearby districts, especially Chittorgarh, Neemuch (MP), Kekri, Shahpura, Tonk, Rajsamand etc. come here to get the benefits of the available services.

Airways

An airstrip named 'Hamirgarh Airstrip' is situated at the intersection point of 25° 08' North Latitude and 74° 36' East Longitude in Hamirgarh sub-division, at a distance of 20 km in the southward from Bhilwara city, whose runway is of 6000×100 square feet area (Rajasthan Civil Aviation Policy-2018). Taking a positive step towards upgrading this airstrip, Rajasthan government has recently allocated a budget of Rs. 5 lakhs for the development of facilities and its renovation (Rajasthan Sujas 2022).

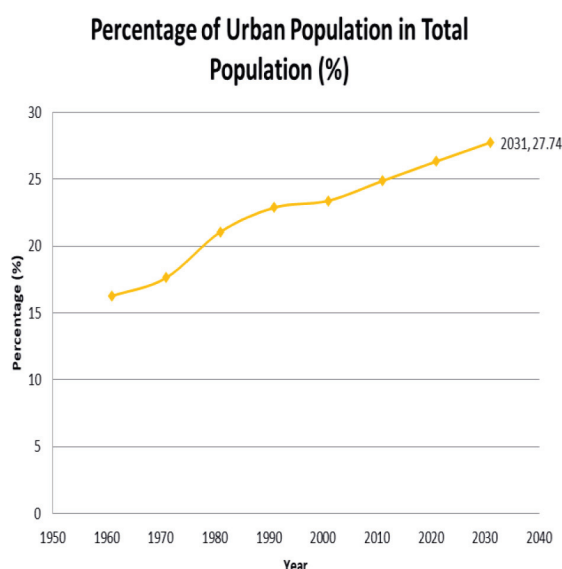
Railways

Bhilwara Railway Station, comes under the North-Western Railway Zone and Ajmer Division, is directly connected to important cities like Mumbai, Hyderabad, Kanpur, Lucknow, Prayagraj, Haridwar, Kolkata, Delhi etc. through rail routes. After the electrification of the railway route passing through the district, now highspeed trains have also started coming here, the most prominent of which is 'Vande Bharat'.

In view of the increasing movement of passengers and large number of stoppages of trains, the number of platforms at Bhilwara Railway Station has been increased from 01 to 05 and in addition to the eastern entrance gate, western entrance gate has also been built. The railway station administration has installed escalator to provide smooth upward and downward movement facilities to the passengers, especially the elderly and disabled.

Table 1: Percentage of Urban Population in Total Population of Rajasthan

Years	Percentage (%)
1961	16.28
1971	17.63
1981	21.05
1991	22.88
2001	23.39
2011	24.87
2021	26.33
2031	27.74

**Fig: 4: Percentage of Urban Population in Total Population****Bus and Other Services**

The country's high speed national highway 'The Golden Quadrilateral' passes near Bhilwara city (NH-48). For convenient transportation of passengers in Bhilwara city, bus service of Rajasthan State Road Transport Corporation (RSRTC) is available in various categories like Volvo, Gold Line (AC Deluxe), Star Line, Blue Line etc (RSRTC employee, 2022). These buses directly connect Bhilwara city with almost all the districts of the state. Private intra-city cab service has also been made available now for the city residents.

Hotels, Restaurants and Resorts

Bhilwara city holds a wide range of hotels, restaurants and resorts with excellent food and accommodation facilities, which include Alaska Resort, Kanchi Resort, Nandini Resort, Palm Resort, Hotel Delights, White Season, Shree Lok, Hollyhock, Tulip, Unique etc.

Sanitation and Health

Door-to-door garbage collection is being done by the Municipal Council under the Swachh Bharat Abhiyan. With the aim of freeing the city from clogged and foul-smelling drains, they have been connected to the sewage lines being laid by the Rajasthan Urban Infrastructure Development Project (RUIDP). According to the report of the Government of India, in the Cleanliness Survey-2023, Bhilwara has been ranked 328th at the national level and 15th at the state level (Bhilwara Bhaskar-2024). Although this is not a praiseworthy position, it can definitely be taken as an important motivating factor by the local administration to intensify its efforts.

Under health services, Bhilwara district has optimum number of government and private hospitals as per the population. Apart from this, a medical college is also established in the district.

Planned Development of Bhilwara City

Due to increasing immigration in past decade, there has been a huge increase in the population of Bhilwara city. According to a data released by the Municipal Council, Bhilwara, the estimated population of Bhilwara city in the year 2024 will be 509000 (Census 2011). Bhilwara is the 16th largest district of Rajasthan in terms of population density. The responsibility of planned development and beautification of Bhilwara city has been entrusted to the Urban Improvement Trust (UIT), which was established on 16 September 1967 and also on Municipal Council (Rajasthan Foundation-2011). In view of the rapidly increasing urban population and increasing pressure on resources, recently the Rajasthan Government has decided to upgrade Bhilwara Municipal Council to Municipal Corporation in the budget 2024-25 (Modified Budget 2024-25, Govt. of Rajasthan).

Pandit Deendayal Upadhyay Smriti Van

It is a picturesque garden established by the UIT on the Chamunda Mata Temple and Harni Mahadev Mandir Road in Bhilwara, the foundation stone of which was laid on 16 September 2008 (Stone plate 01, Smriti Van). In view of the increasing industrial pollution as a result of industrial activities in the areas adjacent to Bhilwara city, it has been created as a major 'breathing center' for the city residents. Smriti Van is a huge garden covered with dense trees, in which all those trees which emit oxygen in large quantities, like Peepal, Banyan, Amaltas, Salar, Neem etc. have been planted. An artificial lake based on rainwater has been created amidst the greenery all around, in which fish and ducks can be seen in abundance.

The total area of Smriti Van is 465 bighas, out of which a garden is established in 315 bighas while a hill is situated in the remaining 150 bighas (Director of tree plantation programme and Chief environmentalist, 2022). This hill is now being used for afforestation. Walking track, cycle track and open gymnasium have been established here for exercise etc. Special gardens have been established here for meditation, yoga, asanas and pranayam. Besides this, various equipment for children have also been installed here.

Mansarovar Lake

Its a rainwater based artificial lake located at the intersection point of 25° 32' North latitude and 74° 60' East longitude in Patel Nagar of the city. The total area of Mansarovar Lake, situated in a cup-shaped trough, is 53 Bigha and 10 Biswa (Development work of Mansarovar Lake-2015). The depth of this trough, which was lying unused as a smelly heap of garbage for the last many years, was further increased by the UIT and by storing rain water in it, it was given the shape of a lake. Chain-linked fencing has been installed around it so that neither garbage can be thrown into the lake nor any other pollution related activity can be done by the people living in the adjacent areas to the lake.

In the beginning phase of the development of the lake, work of construction of RCC wall, rail-

ing on the *pal* (Levee), garden development and intensive tree plantation has been carried out with a cost of Rs. 140 lakhs (Development work of Mansarovar Lake-2015). It is the result of the foresight of the UIT that at present this lake is a very beautiful and fast-growing tourist destination of Bhilwara district.

Beti Gaurav Udyan

This is a beautiful and attractive garden established in the Ramesh Chandra Vyas Colony by the UIT on the banks of Kothari River, "*the lifeline of Bhilwara city*". It was officially inaugurated on 28 September 2020 (Stone slab). It has been established as a 'Pilot Project' of the proposed 'Kothari River Front'. This garden instills the feeling of respectful behavior towards women and social consciousness among the common people. 11 statues of eminent women who have made significant contributions to the progress of the Nation have been installed in the garden. Skating courts for hockey and football and view-points to admire the natural beauty of Kothari river have been built in the park.

Kothari River Front

Meja Dam built on Kothari River is the main source of drinking water for Bhilwara city. Kothari river also holds special importance from the point of view of tourism development in Bhilwara district. Kothari River Front is being constructed by UIT, Bhilwara with the objective of reviving the ecosystem of Kothari River by intensive plantation on its banks, purifying the water of Kothari River and developing tourism on it.

For its construction, a project with an initial cost of Rs. 30 crores have been sent to the state government on 16 August 2022 by the UIT for approval (project proposal, UIT, 2022). However, the total estimated cost of this entire project is Rs. 88 crores. The good thing is that the state government has issued administrative and financial approval of Rs. 50 lakhs for preparing detailed project report (DPR) of Kothari River Front. The total length of the river front has been stated by the Trust as 9.5 km (Document, UIT). After the river front is built, its premises will be further

enhanced by the use of attractive lights, music, musical fountains etc.

Elevated Road and Railway Over Bridge (ROB)

With the aim of freeing the roads of Bhilwara city from the problem of excessive traffic and traffic jams, the UIT has announced the construction of an elevated road and an additional over bridge.

This will be the first elevated road of Bhilwara. According to the plan, it will be built in a total length of 2 km from Ramdham to Khadeshwar Dham located on Chittor Road (Vijay K. 2024). Once the elevated road is built, passengers passing through it will neither have to face any railway crossing nor any intersection. Financial and administrative approval of Rs. 30 lakhs have been issued for preparing the DPR for the elevated road.

In order to get relief from the problems being faced by the city residents due to frequent closure of the railway crossing, the UIT, Bhilwara announced the construction of a Railway Over Bridge (ROB) from Dangi Factory via Sabun Marg to the boundary wall of Rajendra Marg School (Fig: 1.1). Financial and administrative approval of Rs. 15 lakhs have been issued for preparing the DPR for the over bridge.

The UIT has entrusted the responsibility of preparing the financial proposal and DPR for the above mentioned three projects i.e. Kothari River Front, Elevated Road and Railway Over Bridge to 'PD Core Agency' based in Jaipur.

Gandhi Vatika

On behalf of the UIT, it is proposed to develop a Gandhi Vatika on an area of 40 bighas in Patel Nagar extension as an 'Oxygen Centre' similar to Smriti Van (Document, UIT). According to the plan, on the basis of Jaipur's Central Park, a food park and open gymnasium for tourists and various types of sports equipment for children will be established in Vatika and many murals of Gandhiji will be installed. A 500 m long mud track and another 15 km long walking track will be built for morning and evening walks. Shady, fruitful and ornamental trees will be planted in the area reserved for the garden and yoga gardens will also be developed among them. A Deer Park will also be developed in the garden. It will be the first deer park of Bhilwara.

An Open Theatre and a grand Musical Fountain will also be established in the garden. A huge artificial water lake will be created in the garden. Plane table survey of the place selected for making the garden has been done by the authorities. Gandhi Vatika will be the first tourist destination for Bhilwara where various recreational resources will be available to the tourists at one place and at one time.

The following new projects (Table 1.2) are proposed by the UIT having a cost of Rs. 256 crores to make Bhilwara city a smart city. Work on few of these projects has already commenced while work on others is yet to be done.

Table 2: List of Proposals of Projects for Smart City Bhilwara

S. No.	Name of Project	Field of Development	Total Estimated Expenses (in Crore Rs.)
1.	Beautification of City	Development of parks, lakes greenbelt and dividers	20.00
2.	Distribution of clean drinking water in the city	Whole City area	20.00
3.	Development of Kothari River Front (Phase-1)	Kothari River Rejuvenation and Conservation	30.00
4.	Construction of Storm Water Drainage	Bhilwara city integrated storm water disposal network	40.00

S. No.	Name of Project	Field of Development	Total Estimated Expenses (in Crore Rs.)
5.	Development of intelligent Traffic system with CCTV surveillance system (Abhay command) and integrated command & control center (ICCC)	To develop Accident-free city traffic infrastructure including intelligent Traffic management service	25.00
6.	Construction and widening of Ajmer Bridge	City infrastructure	30.00
7.	City upgradation of railway station and bus stop	City infrastructure	10.00
8.	E-library	City Information Center	10.00
9.	Advance electrification & underground cabling in core city	City infrastructure	30.00
10.	Development of multilevel parking at Mahatma Gandhi Hospital and other places	City infrastructure	30.00
11.	Development of public transport system	Whole city	10.00
12.	Preparation of Detailed Project Reports (DPR)	Smart City	1.00
TOTAL			256.00

Source: Statement issued by Secretary UIT, Bhilwara, serial no. 4217, dated 16/08/2022

Current Challenges and Suggestions in the Path of Smart City

Various development works are being conducted with the aim transforming Bhilwara city into a smart city, but there are various types of challenges in the path which may be overcome by making a better planning and strategy. Regarding these problems and their possible solutions, following suggestions have been proposed by the researcher.

Increasing Pollution in Bhilwara City

Due to the pollution emitted from the industrial units operating around Bhilwara city, the climate here has started getting polluted day by day. The chemicalized, toxic and hot black water emitted from factories and boilers presents a horrifying picture of Banas and Kothari rivers and nearby ponds. This chemicalized toxic water can neither be used for irrigation nor as drinking wa-

ter. Due to the emission of this water, there has been a decline in the quality of fertile lands and ground water available. The problem has become so severe that even the ecosystem of rivers and ponds is also being destroyed. As a solution to this problem of black water generation, necessary guidelines can be issued by the concerned Pollution Control Department by conducting a comprehensive survey to know the current status of water treatment plants installed in factories and setting standards. Apart from this, the capacity of these treatment plants can also be increased as per requirement.

Due to the polluted black smoke emitted from the four operating brick kilns and factories of the city, a pollution dome has been established in the atmosphere. This pollution dome can be clearly seen during winters when the gases become cold and heavy. In this regard, punitive action can be taken against highly polluting units.

Broken Roads

The roads of Bhilwara city are covered with deep potholes and haphazardly constructed speed breakers, which naturally lead to road accidents. The people in the streets have made sharp and highspeed breakers by digging drains in the road wherever they wish and placing pillars in them. Due to this, drivers have started facing problems like back pain and slip disc. Roads in some areas have deteriorated to such an extent that a large amount of dust starts flying from them when vehicles pass by. As a result, city residents are facing serious disorders like asthma and silicosis. In such a situation, such speed breakers can be demolished by the concerned department without any delay and speed breakers can be made as per the prescribed standards and campaigns related to repairing the roads can be conducted more frequently from time to time.

Problem of Encroachment and Stray Animals

The residents of Bhilwara are troubled by the problem of encroachment in the markets. The markets have been encroached upon by most of the vendors spreading their wares on the roads and setting up vegetable and fruit carts on the main roads of the market. Walking and driving on the roads of encroached markets has become a difficult task. The market area is not at all accessible for cars. Apart from these, stray cattle are seen roaming here and there in the markets of the city. So far many people have been seriously injured in attacks by these cattle. This problem can be controlled by the concerned department by taking strict action against the encroachers and by displacing the stray cattle into kine houses.

Chaotic Traffic

The traffic system of the city cannot be called good. Azad Chowk, Railway Station Road, Murlivilas Dharmshala road and Mahila Ashram Road are those areas of the city where vehicles get jammed every day. Vehicles are parked haphazardly at these places due to which the roads become extremely narrow. Apart from this, installed traffic lights on few points are not functional. In such a situation, drivers and pedestrians have

to face a lot of problems. The traffic system can be improved by the concerned department by arranging adequate number of traffic lights at appropriate places, widening the roads as much as possible and providing proper space for parking of vehicles.

Leakage of Meja Canal

The Meja canal passing through Krishna Nagar, Pratapnagar police station area, Bapunagar, Chandrashekhar Azad Nagar, Mokhampura and Jat Ka Kheda of Bhilwara urban area has been broken at many places. There is continuous leakage of water released for irrigation. Water has started reaching the buildings in the colonies and the problem of waterlogging is arising. This problem arises almost every year. In such a situation, this problem can be resolved permanently by cleaning and repairing the canal from time to time by the concerned department.

Drainage Problem

The drains of most of the colonies in the city are full of garbage. Due to the growth of grass and bushes in the big drains of the city, the debris is not being cleared adequately. The residents of the city are troubled by the foul smell emanating from them and the mosquitoes and flies that breed in them. In such a situation, there is a need to pay adequate attention to the drainage system of the city. The residents of the city have faced the tragedy of flood many times due to waterlogging in the low-lying areas of the city during excessive rainfall. This problem can be resolved by cleaning and repairing the drains from time to time and spraying insecticides in them by the concerned department.

Sewage Line becomes a Mess of Problems

Sewage lines are being laid in the city to provide a permanent solution to the drainage problem. The reality is that due to sewage project, digging up the already constructed roads and laying sewage lines in them, then repairing the roads, then the sewage lines leak and breaking the repaired road again leads to blockage of sewage lines in that area for months. Removing the leakage and leaving the broken road in its original condition.

This process has become like a never-ending vicious circle for the city residents.

The ferro covers of sewage lines have come up on major roads. Deep pits have formed at some places. Roads have sunken in at those places where work on sewage lines has been done. In such a situation, two-lane roads have been converted into single-lane roads. Due to this, residents are facing extreme difficulty in driving their vehicle and at the same time the chances of accidents have also been increased. It would not be wrong to say that sewage lines have broken the back of the roads of Bhilwara city. Even after a long time, road repair work is pending at the places where sewage lines have been laid.

Due to leakage in sewage lines, polluted water and debris has started entering the buildings of Sanjay Colony area. While fulfilling the social concern, the researcher has also got his views published on this problem in the Bhilwara Bhaskar edition of Dainik Bhaskar newspaper (Bhilwara Bhaskar 2022). The concerned departments of Bhilwara district administration are in a state of grave silence and deep sleep regarding the management of roads. It appears as if there is no guardian of these roads in the district. Regarding above situation a proper coordination among departments, proper monitoring and repairing can be taken as a solution to this problem.

Deepening Crisis on Greenery

Despite of making serious efforts to maintain the greenery, a parasitic epiphyte, the *Cuscuta* has emerged as the biggest enemy. Actually, *Cuscuta* gets its nutrition from other plants and makes them dry and lifeless. The Plants and trees can be seen entangled in the web of this epiphyte. A complete eradication of *Cuscuta* can be taken as a solution to this problem.

Conclusion

Smart city is not a static and final result but it is a dynamic process in which public participation, strong basic infrastructure, social capital, investment of digital technology etc. are necessary to make the cities habitable and capable of facing various types of challenges. The path of making Bhilwara city a smart city is full of many chal-

lenges. Although strong steps have been taken to resolve the future problems of Bhilwara city like development of green areas as oxygen centers for air pollution, construction of elevated roads and railway over bridges to resolve traffic problems and upgradation of Municipal Council to Municipal Corporation, but a lot of development work still remains to be done. With the help of better strategy, efficient management of resources and foresight, these challenges can be resolved and the city can definitely be made smart.

References

1. Beti Gaurav Udyan, Unpublished document, UIT, Bhilwara (2015).
2. Bhilwara Bhaskar 2024, 'Scores of districts covered in the survey, Cleanliness Survey-2023', viewed on 25 Jan 2024.
3. Bhilwara Bhaskar, edition of Dainik Bhaskar, 26 April 2022, Tuesday, researcher's views on the bad roads of Bhilwara city.
4. Bhilwara Patrika 2022, 'Bhilwara becomes smart city', 04 May 2022, viewed on 23 July 2024. (<https://www.patrika.com/bhilwara-news/bhilwara-will-become-a-smart-city-will-cost-250-crores-7508905>)
5. Bhilwara town population census 2011-2024, <https://www.census2011.co.in/data/town/800592-bhilwara-rajasthan.html>, accessed on 17/08/2024 at 12:30 pm.
6. Census-2011, Bhilwara Town Population Census 2011-24, <https://www.census2011.co.in/data/town/800592-bhilwara-rajasthan.html#:~:text=Current%20estimated%20population%20of%20Bhilwara,is%20postponed%20due%20to%20covid>, accessed on 10 July 2024.
7. Census-2011, Bhilwara Population 2024, <https://www.census2011.co.in/census/city/87-bhilwara.html#:~:text=The%20current%20estimate%20population%20of,was%20postponed%20due%20to%20Covid>, accessed on 10 July 2024.
8. Development work of Mansarovar Lake (2015), Unpublished document, UIT Bhilwara.
9. Director of tree plantation programme and Chief environmentalist, Dist. Bhilwara. Interview by Abhishek Srivastava, 17th July 2022.
10. Economic Review, 2023-24, Economic and Statistical Directorate, Department of Statistics, Rajasthan, Jaipur, Govt, pp. 124

11. Economic Review, 2023-24, Economic and Statistical Directorate, Department of Statistics, Rajasthan Govt, Jaipur, pp. 128
12. Hydrological Atlas of Rajasthan (Bhilwara District), 2013, Ground water department Rajasthan, pp. 02, viewed 18 July 2024. (https://phedwater.rajasthan.gov.in/content/dam/doitassets/water/Ground%20Water/Pdf/PublicReports/Ground-water_Atlas/Districts/Districtwise%20Atlas%20-%20Bhilwara.pdf)
13. Information Bulletin, December 2015, Research and Information Division 2015, Lok Sabha Secretariat, No. LARRDIS (E & S) 2015/IB-3, New Delhi, pp. 01. (https://eparlib.nic.in/bitstream/123456789/299/1/Smart_City_Eng_December_2015.pdf)
14. Modified Budget 2024-25, July 10th 2024, finance department, Govt. of Rajasthan, Jaipur, pp. 06
15. Project proposal number 4217 sent by UIT Bhilwara to the Joint Secretary-II, Urban Development and Housing Department (UDH), Government of Rajasthan, Jaipur, 16 August 2022.
16. Rajasthan Civil Aviation Policy-2018, Government of Rajasthan, Jaipur, P. 32, viewed on 28 Aug 2024. (https://gad.rajasthan.gov.in/details/Rajasthan_Civil_Aviation_Policy_2018.pdf)
17. Rajasthan foundation (2011), District Census Handbook 2011, Part XII-A, Bhilwara, Rajasthan, pp. 02. <https://censusindia.gov.in/nada/index.php/catalog/1024>, accessed on, 13 Aug 2024.
18. Rajasthan Roadways Office (RSRTC) employee, District Bhilwara. Interview by Abhishek Srivastava, 15 September 2022.
19. Rajasthan SUJAS E-Bulletin, Saturday, 10 September 2022, Information and Public Relations Department, Government of Rajasthan, pp. 01.
20. *Smart Cities Mission 2015-Building a Smart India*, Ministry of Housing and Urban Affairs, viewed on 14/06/2024 at 01:00 pm. (<https://www.india.gov.in/spotlight/smart-cities-mission-step-towards-smart-india#:~:text=Cities%20accommodate%20nearly%2031%25%20of,institutional%2C%20social%20and%20economic%20infrastructure>)
21. *Smart Cities Mission-2015*, Reference Note, Lok Sabha Secretariat, New Delhi, No. 14/RN/Ref./June/2018, pp. 02. (https://loksabhadocs.nic.in/Refinput/New_Reference_Notes/English/Smart%20Cities%20Mission.pdf)
22. *Smart Cities Mission-2015*, Reference Note, Lok Sabha Secretariat, New Delhi, No. 14/RN/Ref./June/2018, pp. 10. (https://loksabhadocs.nic.in/Refinput/New_Reference_Notes/English/Smart%20Cities%20Mission.pdf)
23. Stone plate number 01 installed in the Pandit Deendayal Upadhyaya Smriti Van complex, Bhilwara.