

INITIATIVES TAKEN FOR URBAN MOBILITY AND TRANSPORTATION IN JAIPUR SMART CITY

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Introduction

Jaipur city is famous heritage and planned city of the Rajasthan state and attracts many tourists every year. Soon Jaipur would claim be one of India's connected cities under the 'Smart City' initiative. In 2015 under the smart city mission, Jaipur city was declared the smart city. Several projects are carried out under special project vehicles (SPVs), such as Jaipur Smart City Limited, Funds are also spent on convergent projects carried out in collaboration with civic bodies; 50% of the investment has been provided by the union ministry of housing and urban development, 30% by the state government and the rest by local bodies. The funds received for the smart cities was to build smart roads (cement concrete roads with demarcations for motorized, parking, and non-motorized areas), construct underground duct for hanging wires, set up open- air gyms in parks and renovate bus stops. Nearly ₹ 1000 crore has been spent in Jaipur for the completed and ongoing projects and convergent ones. The basic problem in Jaipur city was encroachment, parking problems, traffic, hanging wires, roads, sewerage and solid waste management. The main features of smart city are given in below figure.

Keywords- Development, union, quantitative, mission, heritage



Figure 1: Components of Smart City

Objective

To find out the initiatives of government in Urban Mobility and Transportation in Jaipur Smart City.

Study area

Jaipur city is located on the eastern border of the Thar Desert. It is popularly known as “Pink City” and is one of the best architecturally designed cities in India. Jaipur is located at 26°55'N 75°49'E (26.92°N 75.82°E). The city is located at a height of 1417 feet above sea level. Jaipur is situated in the eastern part of Rajasthan, surrounded on three sides by the rugged Aravali hills. Jaipur is surrounded by the Aravali hills

from three sides which safeguard it from the desert.

Research methodology

The quantitative and qualitative study was done with the help of focused group interview and questionnaire. The secondary data was collected from various websites provided by the Rajasthan government and Smart City Mission. The primary data was collected from respondents on the basis of focus group interviews and questionnaire filled by the respondents. Almost 100 respondents responded on what are the initiatives taken by government in the city. This number includes the main authorities of the

smart city mission and normal residents of the city. With the help of charts and diagrams data is represented in the results and discussion.

Results and analysis

The smart city Jaipur is an architectural beauty and it has vibrant culture, established in 1726 as a planned city. It has been chosen for *Area Based Development*, where the blend of heritage with modernity is taking place through projects like restoration of heritage buildings, improvement and beautification of facades and ‘smart roads’ with developed and integrated traffic management system. The targets of walled city (smart city) better road network, well defined public places and controlled façade treatment on main roads. The second base of smart city Jaipur is *Pan City Development*: application of selected Smart Solutions to the existing city-wide infrastructure. Therefore, the biggest work in city under the mission is construction and development of smart roads with features like CCTV cameras on every electric pole, WiFi system, intelligent lights, environment monitoring systems, information display system, charging points, bins with sensors and safe movement of pedestrians.

The *Area Based Development* also includes the major sectors like sustainable mobility corridors, smart civic infrastructure and conservation of buildings and heritage. It also included the Retrofitting(planning and development in existing built up area), Redevelopment (Replacing of existing Built Environment) and Greenfield like development of a vacant area. Likewise *Pan City Development* includes like Multi Modal Public Transit Central Operation and Management Centre, Smart Mobility card, Solid Waste Management and Public Information System.

Figure 2, shows the basic problems of the Jaipur Smart City, where traffic Congestion is the biggest problem and to address this issue projects like construction of three underground parking as Chandpole, Chaugan stadium and one in Jaipur Hospital are under progress. Figure 3, explain the solutions takeb by government under the mission. Roads has been broaden, traffic management system has been improved and sensors has been used for dustbins. There has been positive change in solid waste management and traffic control management.

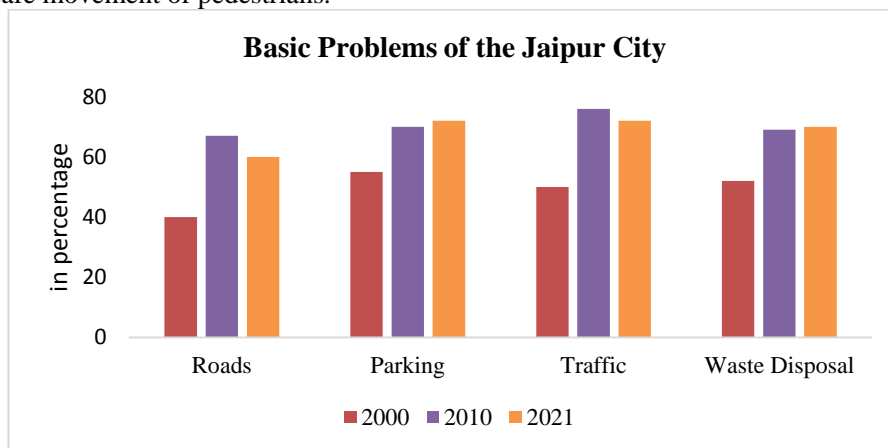


Figure 2: Basic problems of the Jaipur City, Source: By Author

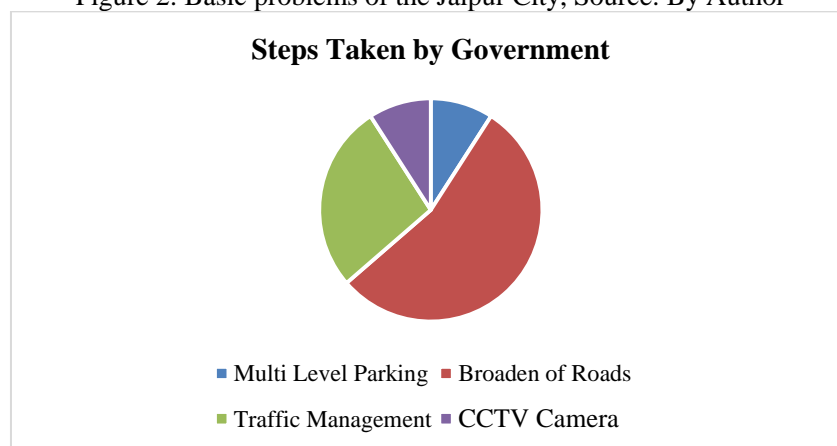


Figure 3: Steps taken by Government under Smart City Mission, Jaipur City, Source: By Author
In figure 4, shows the google map locations of the Kiosk Information, CCTV Cameras and Parking in the Jaipur smart city. These are completed projects in the city.

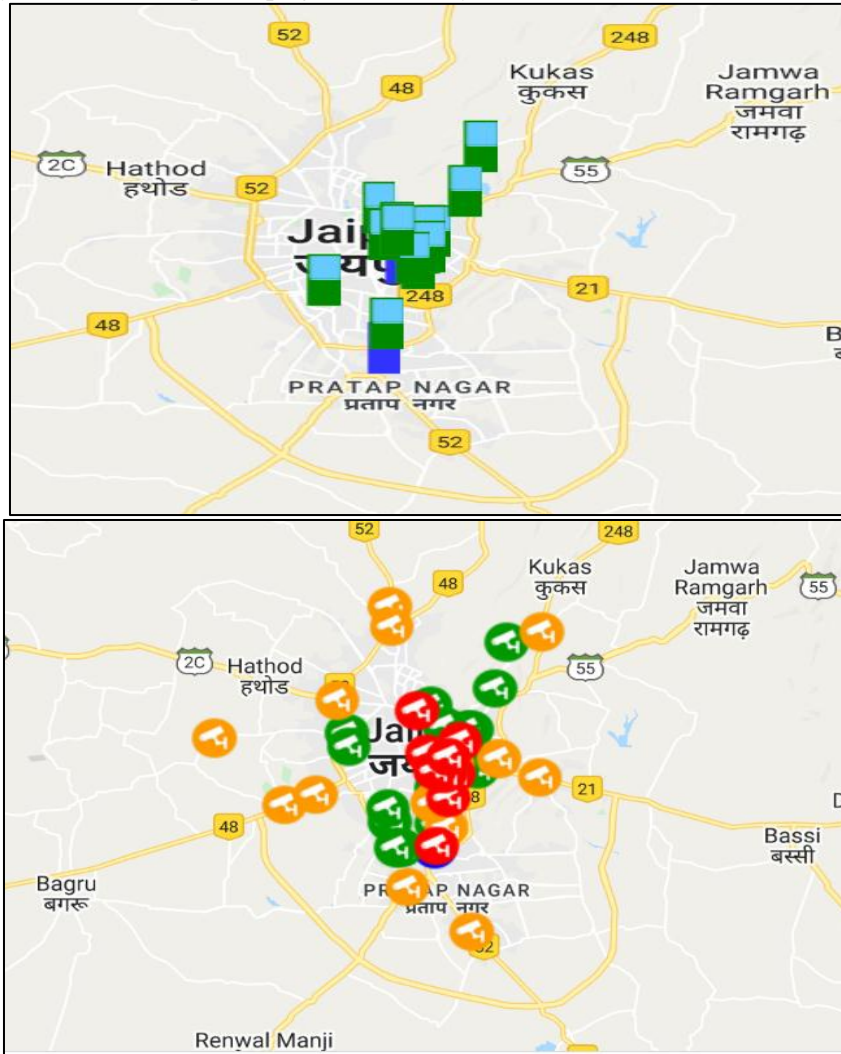


Figure 4: A. Kiosk information centres in the City. B. CCTV Cameras in the City



C. Parking Locations in the City

The completed projects of the smart city includes multi-level car parking in Chaugan stadium, under construction at SMS Hospital, façade improvement in nine markets, rooftop solar panel, covering nullah for 100 meters on each stretch, registration of recyclers and ragpickers, smart Toilet,- self-cleaning Solar Powered, GPRS connected with Display Boards and Voice Guidance, Incident alerts app Helping and SOS Mobile number Panic Buttons, Door to Door collection, Bhramपुरi STP capacity enhancement, Rehabilitation of Bawris, Ram Nivas Bagh Improvement (Phase 1 - Sawan Bhado Park), Operation and Maintenance of 108, 100 new + 08 Old Buses for JCTSL, Waste Pipe repair and fixing work in Gandhi Galiya in Hawa Mahal Zone (West) Ward, Underground Cabling For OH utilities (IPDS), Air Quality Monitoring with APP, Repair works for verandahs of various bazaars in walled city Jaipur, Adaptive reuse of heritage structures of Rajasthan School of Art of city Museum + high end theatre, Assured Electricity Supply with at least 15% of Smart Cities Energy requirement Coming from solar and Procurement of Smart Vehicles and Equipment's for SWM in ABD Auto Hopper 4 wheeler.

Conclusion

Better Mobility and Solutions like Transit operation system, Area Based Traffic Control, Traffic Mobile App, Public Transit and Traffic operations and management Centre, Automatic Fare Collection System, City Electric Buses. These are the improvements and new developments in the Jaipur smart city. The Smart City Mission is helping city to provide better infrastructure and development of the both city and people. The new initiatives by the government under the mission are enhancing the quality of life of the citizens and leveraging its heritage and tourism through innovative solutions, smart infrastructure and inclusive development.

References

1. Jaipur Municipal Cooperation (2008) Chapter-11, Urban Governance and Institutional Framework; City Development Plan for Jaipur
2. MOUD, G. (2019). The Smart City Challenge Stage 2-Smart City Proposal.
3. Proposal, Ujjain Smart City. Ministry of Urban Development. Government of India (2016).
4. <https://jscljaipur.in/>
5. https://link.springer.com/chapter/10.1007/978-981-15-2545-2_28
6. <https://urban.rajasthan.gov.in/content/raj/udh/en/organizations/rudsico/sectors-programmes/smart-city.html#>
7. Jaipur Municipal Cooperation (2008) Chapter-11, Urban Governance and Institutional Framework; City Development Plan for Jaipur
8. Proposal, Ujjain Smart City. "Ministry of Urban Development." Government of India (2016).