ASSESSING QUALITY OF LIFE IN HISTORIC CITY - CASE OF SHAHJAHANABAD

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ABSTRACT:

With urbanization and population outbursts, there is a lot of pressure in the core areas of the historic urban city due to which new infrastructure is needed. But adding new infrastructure is very challenging because of limited space, congested areas, old infrastructure, and poor governance which then leads to slum-like conditions in those areas. These conditions deteriorate the feel of the place and the quality of life of people living there worsens. As the quality of life is not appropriate, people start migrating to other areas for living and these houses are in turn converted to commercial spaces either for storage or small factories. These conversions lead to an increase in footfall of people due to commercialization and the character of the city changed from mixed-use to commercial. There is a need to address the needs of those people to make the area/city livable or provide a better quality of life to residents and workers of that area.

To understand this, a case of Shahjahanabad as a model case study for historic cities in India is taken which depicts similar conditions as discussed, have issues related to increases in population, deteriorating infrastructure, residential conversion into commercial, traffic jams, congestion, political and economic adversaries, etc. The paper is an effort to analyze or bring forward the issues faced by the residents/ workers living in historic cities through the parameters of quality of life which has deteriorated over time and suggestions will be provided to upgrade the city life.
Keywords: Urbanization, Quality of life, Ease of Living Index, Slum

1. INTRODUCTION

With urbanization and population outbursts, there is a lot of pressure on the core areas of the historic city. Historic areas contain the evolution & journey of the area and depict the character of a city. They are an important part of the contemporary Indian setting and provides shelter to the large populations within their defined boundaries. In addition to art, architecture, buildings, and historic settlements, India has a rich cultural heritage. Due to rapid urbanization and changes in people's lifestyles in recent years, this cultural heritage is in jeopardy due to amalgamation with commercial activities. These historic sites vary by religion, socioeconomic conditions, political regime, geographic location, size,

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age, and archaeological interest. As one of the primitive civilized societies for thousands of years, many cities were built, destroyed, and restored. Many historic cities in India still live today on their ground and continue to thrive despite many ordeals that came into their path, Shahjahanabad being one of the examples.

Shahjahanabad was built in 1639 as a walled city by Mughal ruler Shahjahan when he shifted his capital from Agra to Delhi. The city was developed in a typically Mughal style and built densely with an organic street pattern. Shahjahanabad is a walled city and some of its parts are still intact and part of its gates: The Lahore Gate was the main entrance to the Red Fort along with the Delhi Gate, The Kashmir Gate, Calcutta Gate, Mori Gate, Kabul Gate, Faresh Khana Gate, Ajmer Gate, and Turkman Gate were the city's other major connections to highways. The mohallas and Katra systems were developed to accommodate homogeneous community structures. Shahjahanabad was secured and surrounded by walls about 10 kilometers long and gates that connect the city to the surrounding area. Shahjahan and his successive rulers lived in the city until the revolt of 1857 against the British regime. Before Independence, the Britishers built an Army regime inside the Red Fort evacuating 3000 people (approximately) living there and destroying many residential houses. The emergence of new townships like New Delhi (by Britishers in 1911) at the edge of the historical city of Shahjahanabad, Delhi. This has affected the significant identity of this place. The condition of its infrastructure is crumbling slowly due to negligence.

Once the heavenly royal city has now been notified as a slum under Section 3 of Slum Areas (Improvements and Clearances) in the 1956 Act as described in the Master Plan of Delhi 1962.

The basic characteristics of slums are inadequate housing and ventilation, severe overcrowding, inadequate lighting, lack of safe drinking water, and unavailability of basic physical and social services. The "Slum" word is defined as areas where buildings are in any way unfit for human habitation, deterioration of buildings, overcrowding, defects in building layout or design, the narrow or defective layout of roads, lack of ventilation, lighting, or sanitary facilities, or a combination thereof, as a local cause of harm to the safety, health, and morale.

People living in these buildings cannot alter, maintain or add anything to the existing structure due to impose of conservation measures which further leads to the deterioration of building forcing people to move out of Shahjahanabad. The buildings are left abandoned and over some time some are converted into commercial. This commercialization increases the footfall of the area thus changing the character of the place.

So, there is a need to address the problems of the residents living in the city and upgrade their quality of life to retain the heritage value of the city which coexists with people.

1.1 Quality of Life (QOL)

Quality of life refers to the extent to which an individual enjoys important life possibilities, including improved standard of living and general welfare, as well as the feeling of being safe and satisfied with life. The aim is to provide a livable city whose primary objective is to ensure the quality of life and well-being of its residents and all those who work, study, or pass through it. It also focuses on space cleanliness, water and air quality, and noise pollution reduction.

Quality of life cannot be measured through a single method due to its diverse nature. Therefore, to measure QoL different objective and subjective methods are used. The objective approach analytically measures what people

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Equally, the subjective approach considers QoL as covering distinct domains usually disaggregated at the individual level and more concerned with cognitive experience, feelings, and behavior dimensions according to an individual's evaluations and perceptions of life.

There are various quality of life indicators given by various organizations.

A. *Ease of Life Index*, by *the* Ministry of Urban and Housing Affairs (MoHUA) in 2019 in India has three pillars:

-Quality of Life
1. Education
2. Health
3. Housing and shelter
4. Wash and SWM
5. Mobility
6. Safety and Security
7. Recreation

-Economic ability
1. Level of Economic Development
2. Economic Opportunities
3. Gini Coefficient

- Sustainability
1. Environment
2. Green Spaces and Buildings
3. Energy Consumption
4. City Resilience

These are further divided into 50 indicators.

B. ISO (*the International Organization for Standardization*) *37120*, World Council on City Data, WCCD.

It gives 17 indicators for Sustainable Cities and quality of life which are: Economy, Education, Environment, Energy, Finance, Fire and Emergency Responses, Governance, Health, Safety, Shelter, Recreation, Solid Waste, Telecommunication and innovation, Transportation, Wastewater, Water and Sanitation, and Urban Planning,

India is already considering these parameters for its 100 smart city mission. Although, nearby New Delhi is being considered under this mission neglecting Shahjahanabad/ Walled city area.

C. Organization for Economic Co-operation and Development (OECD), Paris.

The indicators which they follow are Income and Jobs, Housing Conditions, Health, Education, Environmental Quality, Personal Security, Civic Engagement, Work-Life-Balance, Infrastructure & Services, Mobility, Culture & Leisure, Economic Context, and Demographic Context.

2. NEED FOR THE STUDY

When Shahjahanabad was built, Mehrauli was termed as old Delhi. But when Britishers shifted their capital to Lutyens's Delhi, Shahjahanabad" was left to be called as "Old/ Walled City" of Delhi and started calling the Lutyens's Delhi as New Delhi.

In Shahjahanabad area, commercial activities can be seen predominantly, as it flourished due to residential converting into commercial activities. This increased footfall in the area thus increasing the population of the area which has put lots of pressure on the existing infrastructure which is already in a dilapidated stage.

At present 3,00,000 population lives in Shahjahanabad but when it was built, it was for a population of 60,000 people and has a floating population of about 3-4 lakh daily. It covers an area of about 7.12 square kilometers.

The Irony is that the modern-day Shahjahanabad is overflowing with people, Traffic jams, unauthorized construction, and deteriorating infrastructure etc. This demonstrate how Shah Jahan's beautifully designed city, once renowned for its splendor, was destroyed by apathy and a lack of planning.

So, it is very important to study the parameters to improve the quality of life of people living in Shahjahanabad upgrade the existing infrastructure, and restore the crumbling historic city.

Figure 1: *Map and land-use characteristics of Shahjahanabad*
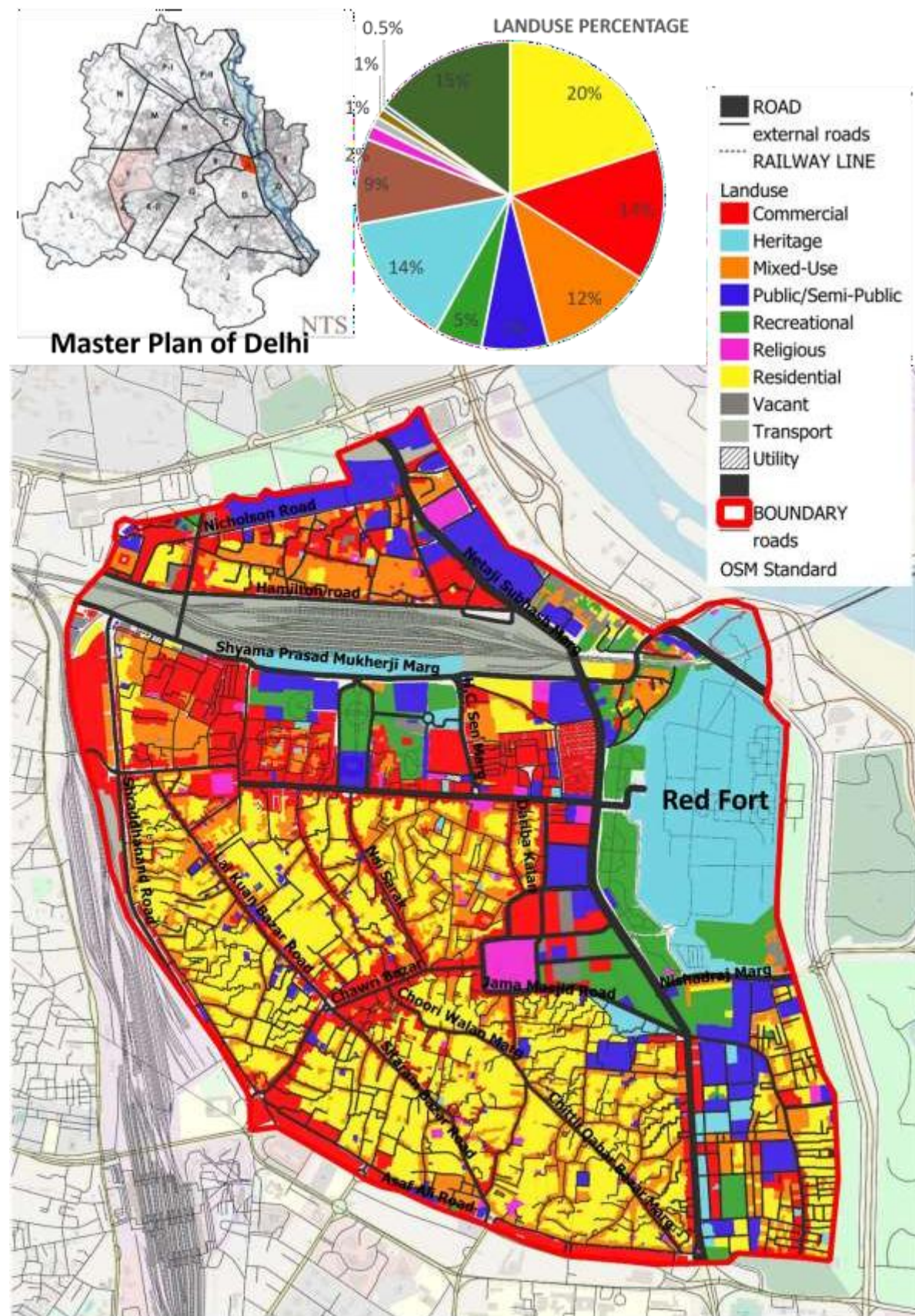
Source: Indira Gandhi Technical University For Women, Seminar(IGDTUW)

3. OBJECTIVE

- To assess the Quality-of-Life parameters (as mentioned above in the paper) for the people living and working in Shahjahanabad.
- To analyze the data w.r.t standards established by government agencies.
- To discover the gaps in the existing infrastructure.
- To provide feedback to improve the current condition

4. RESEARCH METHODOLOGY

The research is assessed based on the parameters given by different government and international organizations. The study is based on secondary research data.

The research is assessed on the basis of infrastructure present in the area and collection of statistical data from various government agencies.

The Master Plan of Delhi and the Zonal Development Plan has been studied.

The data is compiled and compared in the form of tables/charts and then is formulated to draw out conclusions through this research.

The Quality-of-life indicators that are been studied in this paper are as follows:

4.1 EDUCATION

The first parameter is education. In the Walled City, most schools are run by the Municipal Corporation of Delhi (MCD), but some private and aided schools are also operating here.

- As per the Master Plan of Delhi (MPD) 2021, 1 senior secondary school is required for a population of 10,000, and 1 primary school is required for a 5000 population. There are 51 schools in the area so are sufficient in number.
- The total land of these schools is 11.69 hectares and some schools are run on two shifts. But schools are deficient in playground areas. Therefore, two new schools are proposed in ZDP-2001.
- As per the education act 2009, the student-pupil ratio should be 30:1 but in

Delhi, it is 32.7:1. So, teachers required are deficient in numbers.
- The literacy rate of Shahjahanabad/Old Delhi is 73.74% of the total population out of which 76.44% of the male are literate and 64% of females are literate (Census 2011).

Table 1: *Comparison of Literacy rate of Old Delhi/Shahjahanabad with overall Delhi and India.*

Gender	Old Delhi	Delhi	India
Male	76.44%	90.94%	84.7%
Female	64%	80.76%	70.3%
Total	73.74%	86.21%	77%

Source: National Statistical Website

By analyzing all the parameters, it can be concluded that despite there being a required number of schools, the full literacy rate is still not achieved and lesser number of teachers are present than the required numbers.

4.2 HEALTH

Lack of sewage systems, solid waste disposal, and inadequate water distribution can lead to health problems and epidemics in walled cities. As per MPD-2021

- On the current population, there are 4 hospitals and 38 dispensaries in which only 1 hospital specializing in gynecology and obstetrician is present. According to WHO, there should be 5 beds per 1000 population which is not fulfilled as only 1.6 beds are available in the area which is only 30% of the required.
- There is no multi-specialty hospital in the area, so people had to go to the nearby areas to get surgeries or for expert opinions.
- The doctor-patient ratio is also not achieved according to WHO which is 1:1000 and there is only 0.5:1000, which is 50%.
- Although the average life expectancy in Delhi for males is 74 and for females is 77 which is more than the national average which is 70.

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- The infant mortality rate of Delhi is 11% which is less than the overall country rate which is 30%.

Table 2: *Comparison of beds requirement*

No. of beds/1000	Old Delhi	Delhi	India
Required	5	5	5
Present	1.6	2.71	0.5
Gap	3.4	2.29	4.5

Source: WHO

4.3 HOUSING AND SHELTER

Shahjahanabad/old Delhi is also categorized in slum category, as several old buildings are unfit for human living. The areas had been declared as slum and has to be dealt under Section 3 of the Slum Act 1956. Also, the houses present in the area are declared as heritage sites if needs renovations are not allowed to alter or add new structure in the existing building.

As per MPD 2021, 4.5 persons are considered for accommodation in 1 dwelling unit. In Shahjahanabad, there are 60,000(approximately) houses for 3,00,000(approximately) people which comes out to be 5 persons per dwelling.

Table 3: No. of houses required

No. of household's present	No. of households required	Gap
60,000	66,666	6,666

Source: Census 2011

So, from this, it can be concluded that there is a deficiency of houses in the area according to the standards.

4.4 RECREATION

Walled City currently has three large parks/open spaces: Netaji Subhash Park, Gandhi Grounds, and the open spaces around the Red Fort. has only about 11.5 hectares, which is 0.33 m² per person, well below the 5 m² per person recommended in the master plan for this level. There is no way to increase this

other than removing some of the evacuated properties.

Tourists visit Red fort, Jama Masjid and Religious temples, Sheeshganj Sikh Temple, Jain Temples etc. and Dedicated Bazars (Shopping streets) for specific purchases as it has separate streets for different items like Nayi Sadak for books, etc. which adds to the daily footfall of the area.

4.5 SAFETY

Electrical wiring failures, hanging on roads throughout the area increase the risk of fire. Under urban pressure, Old Havelis(Large Courtyard houses) are turned into manufacturing centers and godowns. These altered properties of old Havelis lead to an increased load on the power supply. The result of uncontrolled growth is that the electric pole wires are tangled badly, leading to a series of fire incidents in this densely populated area.

- There are at present 2 fire stations for a population of 3,00,000 in Old Delhi and as per MPD-2021 there should be three Fire stations for every 5-lakh population to be provided in 5-7 Km. From this, it can be concluded that the fire stations are appropriate in the area.

Figure 2: *Hanging Wires*

- There are four police stations present inside the walled city that are Darya Ganj, Chandni Mehal, Hauz Khazi and Lahori Gate. But if we compare

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the police force vs all over India there are only 155 policemen for 1,00,000 population whereas in Delhi there are 410 policemen for 1,00,000 population (as per the ministry of home affairs report 2021). So that is sufficient for the area.

4.6 Solid -Waste Management

As per Delhi Urban Art Commission (DUAC), Shahjahanabad with an area of 569ha has a high density (approx. 439 PPH). The total waste generated is 125 TPD. The area has enormous economic activities in the market as well as the on ribbon corridor roads which generate huge waste, as discussed below:

- Organic waste (40%)
- Recyclable waste comprising glass, ceramic, metal, paper, and plastic (39%)
- Combustible waste consisting of textile and wood (10%)
- Inert waste (15%).

This is managed by Municipal Corporation of Delhi, although still there is lack of planning, and maintenance, which leads to patches of garbage on streets, apart from the 1.3 Km stretch of the Chandni chowk Road, which is recently redeveloped.

4.7 Transportation/Mobility

Apart from 3,00,000 people living in the walled city, there is a floating population of 3-4 lakh people commuting daily for commercial activities, religious purposes (Sheesh-Ganj Sikh temple, Jain Temple, Jama Masjid), or visiting tourist attractions (Red Fort, Havelis) which requires a huge transportation system as the traffic volume is very high in this area. As there comes a large number of vehicles either small or big, slow or fast, which in turn adds to the traffic problems.

There are various types of modes of transport that connect the walled city to other areas of Delhi or nearby Delhi which are:

1. Old Delhi Railway Station
2. Bus
4. Electric/Manual Rickshaws
5. Auto
6. Cab

The area has a good network of public transport systems but it lies on the perimeter of the city.

- Two metro line connects Shahjahanabad with 4 metro stations which are the violet line (Lal Qila station), and the Yellow line (Kashmere Gate, Chandni Chowk, and Chawri Bazaar station).
- According to MPD-2021, it is envisioned to have 2 bus Depots for a population of 5 lakhs and in old Delhi, the buses function from four places in Walled City, which are:
  - The area west of Subhash Marg.
  - Area East of Subhash Marg.
  - Area in front of Railway Station.
  - Bhai Mati Das Chowk area
- There are 6 underground parking in which 4 underground parking's are provided outside the city and only 2 underground parking is available inside the city.
- The width of the collection road is 15-18 m. The width of the gully is 6-9 m, some are only 2 m wide. So, these form a physical barrier for traffic to enter the core area and form a predominantly Pedestrian route. Traffic inside the core is limited to non-motorized vehicles, electric rickshaws and two-wheelers, and bicycles.

There was also, a redevelopment project of Chandni Chowk that was executed as it was a chaotic mess inside the bazaars and the pedestrian movement was very slow and congested. After the completion of the project, the pedestrian movement has become hassle-free inside the markets but it has choked the outer roads as autos and rickshaws line up outside and creates a traffic jam.

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4.8 ECONOMY

Shahjahanabad lies in the central district of Delhi. Delhi has the highest number of establishments in the Central area, accounting for approximately 17% of all establishments in Delhi (893177). While there are no specific data on the walled city's Gross Domestic Product (GDP), there are about 70-80 branches of various commercial banks and about 150 ATMs in the area, suggesting the economic activity of hundreds of millions of rupees is actively carried out.

The percentage of the population living below poverty at the national level is 21.92% whereas in Delhi it is 9.91%.

The total number of employments in the walled city working in various fields is estimated at 4,00,000 (MPD-2001 Work Studies). Commercial premises is estimated to have increased by 700% in 20 years (1,55,000 units in 2001 compared to 22,000 units in 1981).

5. DISCUSSION

As the main aim is to uplift the quality of life for the residents living in the studies area, in this paper, 8 parameters are discussed which are: Education, Health, Housing and Shelter, Recreation, Safety, Solid Waste Management, Transportation, and Economy to the established parameters set up by the different government and international organizations.

In the Education sector, although the number of schools and colleges that are present is adequate, the teacher is to student ration is not appropriate. So, there is a need for recruiting more teachers which will also generate employment opportunities in Shahjahanabad. The schools were also deficient in space as there was less space for playgrounds.

In the Health sector, there were 4 hospitals in which only one hospital beds are available that too is insufficient in numbers. The hospital too is a gynae and child specialist so there is a requirement for a multi-specialty hospital with the required number of beds according to the population. Doctors available according to standards is also very low so it should be looked into by the government and take appropriate measures to reduce this gap.

In Housing and shelter, there are 6,666 houses less than the current population. As the Shahjahanabad area comes into the special zone so measures have to be taken according to rules like upgrading existing infrastructure, and new areas for development of new housing can be explored.

In Recreation, the space required per person is very less according to the standards, and the availability of the area in the current Shahjahanabad is not there as it is already very congested. So unauthorized settlements and abandoned katras and houses can be removed for the creation of new parks.

In terms of safety, there is an appropriate number of policemen and firefighting services. But still, the crime rate like theft, etc., is very high in this area due to overcrowding and congestion on the streets and roads. Due to narrow lanes, it is also very difficult to move firefighting tender inside these streets and if any accident like a fire occurs it spreads very quickly due to the arrangement of houses which are very densely packed.

In Solid waste management, as the area is more oriented to commercial activities the waste generated is very high and also very varied. The waste can be recycled and reused and landfill can be prevented by adopting various measures.

In transportation, it is concluded that it got a very good public transportation system but as it is located on the periphery of the city, people residing in the city has to walk more than 500-800 meter which is a TOD standard given by MoHUA. Some street lanes are very narrow and prone to criminal activities.

In the Economy, it can be concluded from the data available that commercial activities have risen in this area over a period thus contributing to the

city's Gross Domestic Product (GDP). And also there is a high potential for heritage tourism as it got at least 400 monuments.

6. CONCLUSION

This research paper highlights that people living in Shahjahanabad have a very low quality of life as assessed on the basis of minimum standards required and present situation available on the site. There are some good aspects also but they are overshadowed by a large number of deficiencies present in this historical town. The commercial sector is very strong in this area but there is an urgent need for improving the quality of life of residents and workers. There are various challenges in restoring and maintaining a historic city due to governance and legislation. So, there is a need for strong governance and a framework for legislation. The infrastructure can be upgraded with the help of people's participation and government initiatives and this gap can be filled and this previously called royal city can be restored to its glory.

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