

# Socially Inclusive Urban Streets in India

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**Abstract**— Streets are an important functional element of planning and an integral part of a neighborhood. To make them socially inclusive it's important to understand the needs of people in the streets. Earlier they were a passageway for people to interact, but now vehicles are a dominant factor seen. Over time, the streets also need an upgrade. A qualitative analysis of these issues is possible with interaction and interview sessions with people. Analyzing the primary data received from the interviews and comparing them to secondary data (Urban design theories) will give a brief understanding of people's requirements from the streets. The present study focuses on the issues faced by Indian people in the streets and how these social spaces affect us. With some interviews and discussions, these problems can be understood and resolved. The paper concludes by giving incites on the usage of urban streets over a course of time and how they can be improved.

**Keywords**—Community Participation, Pedestrians, Streets, Urban Design, Vendors

## I. INTRODUCTION

Streets apart from fulfilling the functionality, also act as an interaction hub, socializing place, and provide a sense of culture to the community. Over a transition of time, urban streets have gone through a lot of changes, from incorporating different lanes for pedestrians and cyclists to the introduction of green and interactive spaces. Different factors are affecting the social usability of a street. Today, urban street use and representation reveal an array of uses. The users and their understanding of resource management are also seen. The brick laid streets in the ancient city of Harappa and Mohenjo-Daro served the basic need of movement as well as proper drainage and sanitation systems were incorporated beside them. The streets were wide enough for wheeled carts to pass through. The materials used for the construction of roads and streets have also changed through time. Earlier in rural areas, streets were primarily used by pedestrians only, hence there were only earthen streets or brick laid roads in villages. Now due to the introduction of heavy vehicles, the typology of streets has changed in the rural context. Earlier people used streets for walking, informal discussions with neighbors, or using the house front for various activities like drying spices to organizing functions and rituals. The house front also has 'otla' along the streets which acts as an interactive spot. The people also perform their daily activities like sipping a cup of tea while reading newspapers or cutting vegetables for meals in the ota. The streets connect people and also help in interaction. Now house fronts do not follow the concept of streets, instead, the road is the term used for it today.

## II. URBAN STREETS

The growth in urban population because of migration has changed the scenario of urban living. The increasing demand for both mobility and real estate has also disturbed the condition of streets and public spaces. (Singh, A., Nayyar, N., & Mourya, 2018) It is seen that urban streets fulfill various other activities other than transportation purposes. In the urban context, streets act as a playground for children, shelter for the homeless, commercial places for street vendors, and a place for street cafes. Streets add open spaces around houses for cross ventilation and natural light. They turn into recreational areas for kids. Social bonding is also improved between people because of the streets. There are several users like pedestrians, cyclists, two-wheeler commuters, four-wheeler commuters, truck drivers, etc. But the passage for traveling is only a two-lane road. There are no different lanes provided for different users which creates a rush in roads and creates confusion for the people traveling. Urban streets fulfill only the purpose of transportation and have no connection to socializing or interaction within people. Roads have become an important aspect of the infrastructure since they have the potential to support business as well as our daily transportation and communication needs. Our streets saw certain changes as a result of the invention of faster and longer forms of transportation, such as streets becoming larger and stronger to handle the expanding requirements of people.

Streets not only are for transportation now but also a place for street vendors, pedestrians, cyclists, roadside food joints, bullock carts, rickshaw pullers, or any other means of a non-motorized transport system. The increased use of motorized vehicles has changed the hierarchy of streets. With the rise in income of the middle class and the upper class, cars and motorbikes have now become affordable to everyone. The number of cars has now increased in the streets. In the planning sector also, changes are seen as houses are constructed for more than one car parking space. The houses constructed with no porch area or parking space, park their vehicle on streets making it narrower. These narrow streets hinder pedestrian movement and make the streets more congested. Cities with organic growth like Varanasi face congestion problems because of narrow streets with no lane divisions. Because of the dominance of cars and motorbikes in the streets, the other users are getting affected. This results in no pedestrians and cyclists in the streets. These requirements are not recognized as a part of urban transport infrastructure. Streets being so important in our lives have now become only a mode of travel for vehicles. They now don't function as a center for interaction or a place for children to play. With time the usability of streets has drastically changed.

### III. ISSUES FACED BY INDIAN PEOPLE IN STREETS

Streets are civic spaces. Instead of on-street parking that zone can be utilized as an interaction hub. A part of the street can be given to hawkers to sell their product, some parts could be there for vegetation. Few areas could be shaded and reserved for benches where elderly people can sit, whereas few spaces can be allotted to rikshaw stands. Certain installations like mobile charging units, washrooms, or water coolers will enhance the liveliness of streets. If it's a historic place exhibition, and signages along the streets will make it more interesting. Instead of allotting places for car parking in streets, the above-mentioned techniques will help in creating lively colorful streets instead of monotonous ones.

#### A. Same lane for different users

The mixed-use of roads on Indian highways is a serious issue as the same road is used by a different group of users. High-speed cars, lorries, two-wheelers, tractors, animal-drawn carts, cyclists, and even pedestrians all use the same route. Even highways are not immune to this ailment. Traffic time, congestion, pollution, and road accidents all increase as a result of this. Different lanes must be provided for different users so that the traffic is maintained and congestion is reduced. Color coded streets are a good solution to it, where different colors can indicate a way to different user. It's a challenge to reconcile the conflicting pedestrian and vehicular movement. A good public space is the one where it allows everyone to do there bit yet allow everyone is sharing a common space. Pedestrianized perpendicular streets will create different lanes for different users creating better user movement. Even street widening is a better concept which can enhance the usability of streets. La Rambla, Barcelona is very good example of lively street. The central stretch between the roads is space wide enough for kiosks, street cafes and pedestrian movement. Every user should have a designated amount of space for their use.

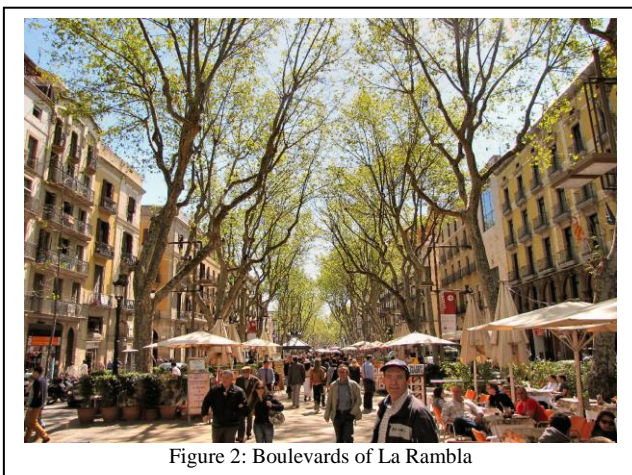


Figure 2: Boulevards of La Rambla

#### B. Road safety issues

Along Indian roads, services such as repair shops, first aid clinics, telephones, clean restrooms, eateries, and rest stops are

scarce. Road safety receives minimal attention, and traffic laws are often broken. Lively streets are safer than wide streets with no amenities nearby. The streets with no street lights and dark nodes around, create an unsafe environment for people. Such streets have zero interaction joints and become dull during evenings. Speed vehicular movement will not result in accidents if the street is separated into different lanes. The streets will be safer if more public amenities surround the area. Law garden in Ahmedabad is a perfect example of such a street. Earlier a deserted street suddenly changed when unauthorized vendors started to sell their goods at night.



Figure 1: Streets of Law Garden Ahmedabad

The street which was unsafe to roam around became a famous street bazaar of Ahmedabad.

#### C. Long distance travelling for nearby places

The pedestrians face several issues when comes to street planning. For a person to cross a road or to reach the opposite corner has to walk double the distance, either by crossing a skywalk or reaching the nearest zebra crossing to move to the other side. The skywalks disturb the skyline of any city, breaking the view from the streets. It disturbs the user movement of pedestrians making it more tiresome and longer for them.

#### D. The dominance of cars in streets

Cities are designed for cars, not for cyclists or pedestrians, hence not enough space for them. The development authorities have now started to trim out the plinth, pedestrian walks, ramps, and green pockets to increase the width of the road for the easy flow of vehicles. Places designed for public interaction are now designed for car commute. On-street parking is very common in any city in India. Cars are parallelly parked along the streets leaving no space for people to walk and interact. Basement and stilt parking must be preferred while designing any urban space. It gives proper space to the vehicle for parking without disturbing the vista of the street.



### E. Vendors struggle for space in streets



Figure 3: Market streets of Jaipur

It is considered illegal for vendors to set their shops beside roads which result in dull streets. When the concept of streets is changing then there must be regulations for shop allocations beside the roads. Hubs like these create a safer environment near the National highways and these stop points make the journey of people more feasible. With the provision of spaces beside the road for vendors, the concept of lively streets can be enhanced. The streets of Jaipur, Rajasthan are a very good example of lively streets where the ground floor is designated for shops while the upper stories are residential units. This kind of hybrid living enhances the usability of streets. The windows opening outside give the whole view of the street making it safer even at night. With the markets along the streets, the place remains busy the whole day and even on nights.

### F. The raised plinths for pedestrian walks

In many places, the raise in the plinth of pedestrian walkways have become the reason for accidents. Marked divisions on roads for differentiating the lanes for different users is a better alternative than to just specifically raising plinths for pedestrians. These areas become places for vendors to sell their goods and consume the vegetation area.

## IV. HOW SOCIAL SPACES AFFECT US

Donald Appleyard's seminal study "Livable Streets" (1982) showed that social connections between people on a street were inversely proportionate to the amount of traffic. Furthermore, there is a fear that social events on the streets would cause traffic congestion or increase the crime rate. There are also concerns that the areas may not be properly maintained, increasing the city's liability (Singh, A., Nayyar, N., & Mourya, 2018). The ideal streets will be those where one can see and meet other people of various kinds, not just those who are neighbors or known people but also strangers. The best streets are those that invite people to participate. People come to a spot to converse or sit and watch, for

morning walks or cycling outside taking in the sights and sounds of the street.

Now it has become a need to redesign the streets for social gatherings and to prioritize people over cars, as well as to address other concerns that are preventing the return of street life on urban roads. Socially active streets are even safer for people when compared to dull streets only used for transportation purposes. Most urban design theorists have criticized high-rise structures and focused on enhancing cityscape through urban design. A good urban environment should contain livable streets and ensure healthy conditions including sunlight, clean air, trees, gardens, open spaces, scaled and designed buildings ensuring physical safety. According to Jane Jacobs, a good urban environment is more compatible with many separate, distinct buildings with complex arrangements and relationships rather than few large buildings or superblocks. Hence smaller buildings mean more entrances located on the public space, thus a livelier public environment.

### A. Controlling authority

When the owner and user of the street are the same groups of people, and the streets are under their control, it gives the users a sense of ownership for the area or street. The regulation of the street is governed by the bye-laws adopted and imposed by the authority of the owner and controller of the streets is some authority and the users are the people of the region. The users' ownership is lowered to a minimum in this circumstance. Community participation for making the streets more livable is a must.

### B. Introduction of green pockets

Automobiles do pollute the environment, so the introduction of green spaces on junctions or roundabout circles will not only enhance the vista of the street but will also conquer pollution. Landscaped cities provide a better environment to the users and therefore landscape planning is an approach also considered for planning cities and designing streets.

### C. Pedestrian friendly planning of streets

Incorporating pedestrian-friendly streets in urban design strategy is a good outlook towards better streets. Many countries have adopted this concept to enhance the user movement of pedestrians. In Rome planning of pedestrian dedicated streets can be seen, whereas in countries like Singapore there is a restriction in the ownership of cars. The walkable cities not only provide convenience to the users but also are safer for the people.

### D. The public transport system

By analyzing the current traffic flow of the city, a brief understanding of congested areas can be understood. The severity of the problem will be revealed as a result of this assessment, and local officials will be able to make difficult transportation-related decisions with long-term consequences for the planning. When the transportation errors are understood then only the traffic of a city can be managed.

### E. Changes in social and economic functions

Since the invention of the automobile, city planning was more focused on the unhindered flow of vehicles on streets. The

most significant hindrance to this is pedestrian movement. As pedestrians require a place to relax and socialize with other people, they frequently use the streets, for this reason, resulting in conflict. The neighborhood concept was created to solve this problem. In which the city was divided into separate neighborhoods, each defined by a large road on the outside that led vehicles directly to the front door. Urban design is the solution to every issue and has defined many concepts which help in redesigning and redefining the streets.

#### *F. Purpose for which it was built*

Streets are planned according to the predefined users and the needs of sectors, industries, and commercial zones around that place. When the streets are planned for pedestrians, it is maintained, with shade and benches provided on the sides and rest spots for the passer-by. The user will take time crossing the distance and may stop to rest or converse with other people on the street. The streets usually planned for motor vehicles are wide and long, but there is no rest-stop or shading beside for people to wait. The distance between the bus stops also matters in this situation. The purpose of streets is also well defined in places now.

#### *G. Multiuse of a places along streets*

Places along streets or near intersections can be used for different purposes at different times. This will increase the value of that area and will result in busy streets all day long. These streets will be connected to sub arterial roads creating branches and increasing the footfall near the streets. Manek Chowk is an urban open space in the heart of the core old city of Ahmedabad. It's a very good example of a multi-use public space. In the early morning, it's a cow grazing ground whereas in the daytime it becomes a daily chores area. In the evenings it becomes a business district and at late night an outdoor eatery hub. The hustle and bustle of streets continue for the day and then the cycle repeats the next day. A place like this near street will make them pedestrian-friendly and socially inclusive.

#### V. CONCLUSION

The street is a part of our cultural life and will always reflect a multidimensional aspect of the people around us. Community participation is seen in the streets which are best for any user type, may it be a pedestrian or car commuter. With the enforcement of right laws, better lane divisions for different users, authorizing spaces for local vendors, ensuring road safety, and making streets pedestrian-friendly, urban streets in India can be redefined or redesigned for the users. When the planning is done prioritizing the users the output is satisfactory. Understanding the need of people and their usability of streets will encourage the participation of people in the streets. Instead of aping the foreign concepts of other countries, the Indian street regulations can be revised and planned according to the need of the hour. Indian cities struggle to cater to the actual need of people today. Urban life now demands a sensitive approach towards the making of streets and their upliftment which also must be catered.

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Figure 4: Eatery joints in Manek Chowk, Ahmedabad