

Exploring the current condition of footpaths: a case of Pune

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Abstract - Footpaths are one of the essential infrastructures for mobility but nowadays they are in a dilapidated condition. Walking on footpaths tests our patience and tolerance. It is a zero investment exercise associated with multiple health benefits. The easiest way to remain fit and active is by walking which is an environment friendly and sustainable mode of transport. Pedestrians have to put their lives in danger while walking on footpaths. If footpaths are not properly designed then people do not feel like using them and so they remain underutilized for the purpose they are designed but are encroached by other activities. It is seen that footpaths are given the least priority in the design of roads. People do not feel safe and comfortable while using them. For pedestrians the footpath has gone from bad to worse. There are a lot of obstructions for pedestrians to walk on the footpaths. These obstructions can be due to hawkers', encroachments, parking of vehicles, uneven surface and many more. This research paper gives the current condition of footpaths and the barriers to walking on them in three different places in Pune where they are of the utmost importance for pedestrians. The existing footpaths were observed to study the condition on various parameters. A qualitative approach was followed through visual observations and photo documentation for the study.

Key Words: encroachments, footpaths, pedestrians, Pune, walking

1. INTRODUCTION

Footpath is a dedicated space provided along the street to be used by pedestrians only for uninterrupted walking. It is an integral part of any road system (Ahmed & Islam, 2020) and is a demarcated area so that people can easily walk on them comfortably without being hurt by the regular traffic that moves on the roads. The footpath should be easily and conveniently accessible and inclusive for all. For walking, footpaths are the basic requirements. Walking on footpaths is a fundamental right of every individual.

Walking is a simple, universally accepted and the most popular form of exercise. It is a fitness activity that does not require any special equipment or training (Baobeid, Koc, & Al-Ghamdi, 2021) which has a number of benefits which include strength of bones, increase in cardiovascular fitness, burning calories, boosting energy, helping to build stamina and many more. It is an activity which can be performed by people of all age groups as it is cost free and easily available. Walking is an accessible, affordable (Bharucha, 2017) and a

sustainable, eco-friendly mode of transport which does not require any fuel or maintenance. It helps reduce traffic congestion, noise pollution due to honking of vehicles, air pollution and is an important mode of transport without the need of any external resources. Walking when compared with other means of travel has advantages of being an environment friendly option to move from one place to another may it be for shopping, recreation, work, exercise, etc. (Iravani, Sohrabi, Gheitarani, & Dehghan, 2024).

The footpaths many times are not pedestrian friendly due to a number of reasons. Walking on footpaths is like a dodging activity and an adventure sport. Pedestrians are not given any attention even though they are the real owners of the footpaths. They always have to risk their lives as they have to use the roads because the footpaths at many places are full of obstructions in some way or the other. Pedestrian facilities are not proper in place so people have to use the road making them highly vulnerable road users (BANERJEE & MAURYA, 2019). In many places footpaths just do not exist. This research paper explores the current condition of footpaths along with the barriers that they pose while using them.

2. ABOUT FOOTPATHS

Footpaths are a vital and integral component of any street that should essentially serve as a dedicated space exclusively for pedestrians and should be provided on both sides of the road for safe and easy flow of the people who walk on them. Footpaths are an essential element of the urban environment and are an indispensable mode of transport built by local government authorities for pedestrian movement (Mittra, Debbarma, & Roy, 2020). They are not just linear passages to travel from one end to the other but they are also places for people to create a sense of bonding, interaction and are crucial public spaces that define the character of streets. There are lots of people who use footpaths during their daily commute for short or long distances. Footpath separates the pedestrian traffic from the vehicular traffic (Bohara & Tiwari, 2022).

In the current scenario, footpaths test the patience of the users while using them. People have to face a number of hurdles that come in the way. This sometimes is so irritating and frustrating that people prefer to walk on roads rather than on the footpaths. By doing this the risk of accidents becomes more as they come in the way of the fast moving vehicular traffic on road. Many times pedestrians are exposed

to injuries and fatalities due to the dilapidated and encroached footpaths.

3. STUDY AREAS

For the study, footpaths of 3 important streets from Pune were taken up and analyzed for a distance of 1km on both sides of all the 3 streets. The footpaths were studied to know the existing condition regarding various parameters.

1. Laxmi road - It was established by the Peshwas during their regime. It lies in the central part of Pune, within the old core city area of Pune and is the oldest one starting at Alka Talkies chowk in the east and ending at Quarter Gate square in the west.

2. Mahatma Gandhi road - It came into existence during the British colonial period. It lies in the camp area which is located on the eastern part of Pune. MG Road starts from Pulgate and ends at Ambedkar statue chowk near Aurora towers in Camp.

3. Fergusson college road - As Pune started to expand across the Mutha river towards the west Fergusson college road emerged. It lies in the western part of Pune, in the Deccan area which starts at Deccan corner and ends at Agriculture College.

4. STREET CHARACTERISTICS

4.1 Laxmi road

The road has been a main shopping destination and the oldest in Pune since ages. It is one of the important and busiest roads in Pune. Even if there are lots of malls coming up in Pune, then also people do prefer Laxmi road for shopping on its bustling streets. It is a major trading area in the heart of the city having shops, offices and residences. The place is a hub to shop a variety of traditional wear, shoes, jewellery and many others. The footpaths are used by people for shopping or commuting from that area. On Laxmi road the pedestrian count is high as it being one of the main commercial roads in the core area of Pune.

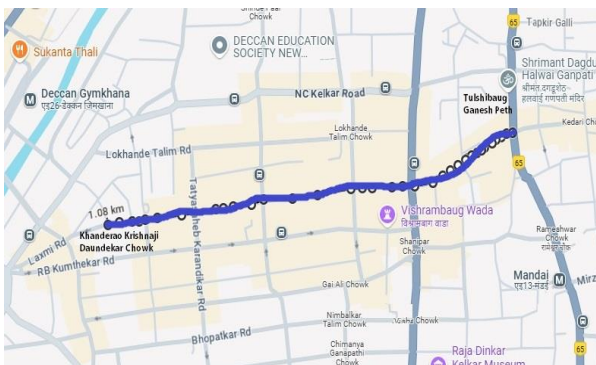


Fig 1: Footpath stretch of the study area on Laxmi road

4.2 Mahatma Gandhi road (MG road)

The road offers a diverse range of shopping. It is a shopper's paradise mainly for the youth as it offers a variety of goods ranging from western wear clothes, fabrics, eateries, shoes, jewellery, fashion accessories, shops of local and international brands and many more. It is also a paradise for foodies as it has eateries ranging from bakeries, chinese, fast food, sweet shops and what not. The street shopping is affordable and fashionable. It is a vibrant and diverse shopping street.

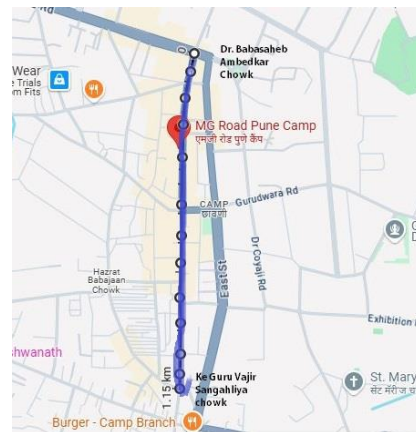


Fig 2: Footpath stretch of the study area on Mahatma Gandhi road

4.3 Fergusson college road (FC road)

This road is another shopping area for youngsters. It has a number of food outlets with a wide variety of shopping options for western outfits, jewellery, footwear, mobile accessories, books, etc. It is one of the liveliest areas for shopping. Trendy footwear and latest designs are found here. It attracts large youth crowds everyday as the famous FC college is on this road along with other educational institutions in its proximity. For shopping and eating it is a good and affordable place as it has some age-old restaurants coupled with other fast food outlets.

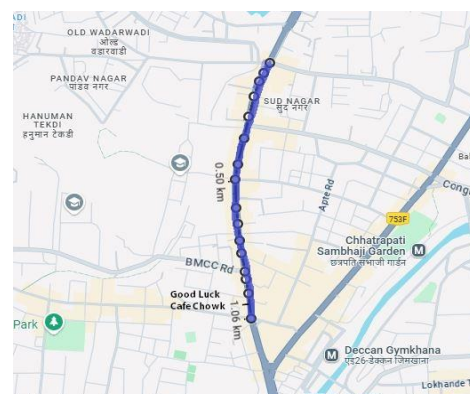


Fig 3: Footpath stretch of the study area on Fergusson college road

5. PARAMETERS

Visual observations and photo documentation was done to study the existing scenario of footpaths across the selected urban streets. The study assessed various parameters like encroachment, surface condition, levels, parking, universal accessibility, etc. It is seen that footpaths are no longer solely committed for pedestrian usage; instead they are used for a number of other purposes. Footpaths are spaces shared by the pedestrians with the hawkers, beggars, parking and public amenities.

The study focused on the following key parameters and their respective sub-parameters:

Encroachment parameter - Hawkers, eateries, extended shops

Vehicles parameter - Parking of vehicles along with driving on footpaths.

Physical parameter - Presence of footpaths, tiles, uneven surfaces, width, levels, dust bins, bollards, street furniture, toilets, electricity boxes

Universal accessible parameter – Provision of ramps, tactile paving, guardrails

6. OBSERVATIONS

6.1 Encroachment parameter

Under the encroachment parameter, it was observed that a significant portion of the footpath is occupied by illegal hawkers, vendors and shopkeepers, leaving minimal or no space for pedestrian movement. The absence of designated vending zones has led to unregulated occupation of footpaths, where vendors set up stalls and attract crowds of buyers, further obstructing the pathway. In several instances, eateries have extended their operations onto the footpaths by placing cooking units or seating arrangements, resulting in both obstruction and unhygienic conditions.

Pedestrians are often forced to step onto the main road, making them vulnerable to accidents thus reducing the overall safety. Additionally, some shopkeepers have encroached upon the footpath by displaying goods and semi-permanent structures outside their stores, especially on MG Road and Laxmi Road, where the extent of encroachment is significantly higher compared to FC Road. Although encroachment by eateries was found to be relatively low across all three roads, the cumulative impact of hawkers and extended shop fronts poses a major challenge to footpath usability and urban walkability.

Main parameter	Sub parameters	Laxmi road	FC road	Mahatma Gandhi road
Encroachment	Hawkers	High	low	high
	Eateries	Low	low	moderate
	Extended shops	moderate	moderate	moderate



Fig 4: Hawkers on Laxmi Road. Source - Author



Fig 5: Extended shops on F.C road. Source - Author

6.2 Vehicles parameter

Under the parking parameter, it was seen that footpaths are frequently misused for parking. At some places on all 3 streets it was seen that the parked two wheelers often occupy some portion of the footpath, leaving insufficient room for pedestrians and compelling them to walk on the road, which forces them to come in the way of the fast moving traffic thereby contributing to traffic congestion. In many cases, even when four-wheelers are parked along the roadside, a portion of the vehicle extends onto the footpath, significantly reducing the usable walking space. Improper and haphazard parking practices not only obstruct pedestrian movement but also create a hostile and unsafe environment.

Main parameter	Sub parameter	Laxmi road	FC road	Mahatma Gandhi road
Vehicles	Parking	Some where	some where	Some where
	Driving	No	no	no



Fig 6 : Parking of two wheelers on footpath on Laxmi road. Source- Author

Dust bins	partially	yes	less
Bollards	Yes	yes	no
Uneven surface	partially	less	partially
Street furniture	No	yes	no
Toilets	No	yes	no
Electricity Boxes	available and use for display	no	available and use for display



Fig 7 : Electricity boxes used for display purpose Laxmi road. Source: Author

6.3 Physical parameter

Under the physical parameter it was seen that in many sections, tiles and paver blocks were found to be damaged, missing or unevenly laid making walking uncomfortable and hazardous particularly for senior citizens, children and persons with disabilities. A notable highlight of FC Road is the presence of supportive infrastructure that enhances both utility and aesthetics. In addition to a well-defined footpath, there is a dedicated cycling track and uninterrupted tactile paving, promoting multimodal and inclusive use. Public toilets are also available on FC Road, while such amenities are lacking on MG Road and Laxmi Road. Further, a distinct belt of planters and strategically placed street furniture contributed to the street’s visual appeal and walkability.

In contrast, MG Road and Laxmi Road lack these features. Their infrastructure is either outdated or poorly maintained, resulting in a compromised pedestrian experience. Moreover, manhole covers at some places on all three roads are often misaligned, creating trip hazards and electricity boxes were used to display stuff by the hawkers on MG road and Laxmi road.



Fig 8: Sewer cover not in line with the footpath level on MG road. Source: Author

Main parameter	Sub parameters	Laxmi road	FC road	Mahatma Gandhi road
Physical	Presence of footpaths	Yes	Yes	Yes
	Width	8'-11'	13'-19'	6'-13'
	Levels	7"-8"	5"-9"	5"-10"



Fig 9: Missing tiles on footpath on Laxmi road.
Source – Author



Fig 11: Edges of footpaths on MG road. Source - Author

6.4 Universal accessibility parameter

Universal accessibility is a crucial aspect of footpaths. This parameter is partially absent on the footpaths of MG road and Laxmi road. Only on FC road the footpaths width is able to accommodate a wheelchair user. There were tactile pavers on footpaths of Laxmi road and FC road only but they were occupied by hawkers on some stretches. Ramp provision is completely absent on MG Road, inconsistently implemented on Laxmi Road and comprehensively integrated along FC Road, making the latter the most accessible of the three.

Moreover, steps leading to the footpaths on MG road were often lacking proper tiling and accessible ramps, posing serious challenges to universal accessibility.

Main parameter	Sub parameters	Laxmi road	FC road	Mahatma Gandhi road
Universal accessibility	Ramps	Partially	Yes	no
	Guard rails	yes	no	partially
	Tactile paving	yes	yes	no



Fig 10: No ramps provided on footpath at MG road.
Source - Author

7. CONCLUSIONS

The study carried out has highlighted the current state of footpaths with the barriers associated with it for walking in Pune where they are very necessary. There are different types of obstructions on footpaths that post danger and inconvenience while walking on them. From the study it is seen that encroachment by hawkers and vendors on the footpaths is the major obstruction. Footpaths are losing their existence and are turning into new market places causing significant challenges to pedestrian safety and comfort which hampers the movement of people on them leaving no space for them. This misuse of space severely undermines the basic function of footpaths as safe pedestrian zones. The absence of designated vending zones has led to unregulated occupation of footpaths, where vendors set up stalls and attract crowds of buyers, further obstructing the pathway.

The footpaths do not have a levelled surface and are not well maintained at some stretches and have sunken, misaligned slabs or no slabs making it difficult to walk on them. Tactile paving is installed on footpaths, but it often fails to serve its intended purpose as the hawkers set up their stalls on them. At a few places the bus stops are on the footpaths thus reducing its width.

Among the footpaths surveyed on the 3 streets it is seen that only the footpath on FC road is pedestrian friendly and encroachment free to a certain extent in contrast to the footpaths on the other two roads. FC road is designed under the Pune smart city project. It serves as a hangout space for people as there are some sitting spaces provided along with wide footpaths which is inviting for people to walk and enjoy.

Walking on footpaths without any hindrance is a basic right of the pedestrians which has now become a dangerous affair and is never a barrier free walk for the pedestrian. The use of footpaths for walking should always be an experience which is without any hindrance for anyone who uses it. The footpaths many times significantly compromise their basic and important function of providing safe and accessible pedestrian movement without any barriers.

To restore footpaths for the purpose they are constructed some actions need to be taken. Illegal vendors must be punished and an exorbitant fine must be charged to them. *Regular maintenance, strong policy enforcement and strategic planning are essential* (Bohara & Tiwari, 2022). Encroachments must be removed, vendors to be given a designated area and inclusive design considerations to be implemented for elderly individuals, children and persons with disabilities alike. Just by providing proper facilities like creating space for pedestrians does not end the matter but there must be proper maintenance and inspection of the amenities which is the responsibility of the authorities. The concerned authorities should now give heed to the pedestrians and their very own space to walk. *The types of barriers are different so accordingly strategies to remove them should be planned based on their favourable outcomes* (Advani, Paridab, & Parida, 2016).

Footpaths are public spaces and not anyone's private property. It is the pedestrian right to have a safe footpath free of any encroachments. Pedestrians are the primary users of footpaths, but then also they are often given least priority in urban design and planning. It is an irony that the most sustainable mode of transportation is the most neglected one. There is acute apathy towards pedestrian rights and towards maintaining and protecting footpaths as shared public infrastructure. Due to obstructions, poor maintenance and encroachments, footpaths have become unsafe and so remain underutilized for the purpose they should be. Pedestrian traffic should be given priority over vehicular traffic. The right to walk safely and comfortably should be non-negotiable. *It is seen that the most sustainable and eco-friendly mode of transport is ignored at large* (Sudhir & Kumar). Authorities should give the pedestrians their legal space to walk. Roads are provided for vehicles to be driven on them and footpaths are provided for people to walk on them should be kept in mind. *The footpaths are considered as part of the road but not an essential one when compared with the vehicular requirements* (Gokhale & Telang, 2013). Footpaths are often overlooked, ignored and given least priority in urban design and planning, even though they play a crucial role in shaping the city. *The footpaths should be given importance in the planning stage and not be considered as just a part of road furniture and add it as an afterthought. Streets to be places both for vehicular as well as for pedestrian traffic* (Gokhale & Telang, 2013).

This analysis underscores the need for improved maintenance and people-centric planning free from obstructions, encroachments, etc. to make footpaths more inclusive, safe and functional for the purpose they are built. The footpaths must not lose their primary purpose and character.

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BIOGRAPHIES

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