

USING DATA TO CREATE SAFER PUBLIC SPACES IN DURBAN



In 2018, Safetipin and Soul City Institute for Social Justice (SCI) won the third Womanity Award that focussed on programs that are creating safer urban environments for women and girls. On receiving the award, Safetipin and SCI worked on processes to adapt Safetipin methodology in Durban, South Africa. This report is an output of the partnership between Safetipin, India and SCI, South Africa supported by The Womanity Foundation.

About Safetipin

Safetipin is a social enterprise that works to make cities safer and inclusive by collecting and using data on a large scale. Safetipin applications are digital tools in hands of urban stakeholders that have been designed to bring gender lens to urban infrastructure to enable girls and women to access public spaces more freely. With its innovative approach to improving the safety of women and others in public spaces, Safetipin has worked across 35 cities globally.



About Soul City Institute for Social Justice

Soul City Institute is an intersectional feminist organization with a mission to ensure that young womxn and girls enjoy substantive equality, with access to resources and opportunities that enable this. Based in Johannesburg, they work towards promoting a society where all people share a common humanity, a respect for human rights, and a fair allocation of resources.



About The Womanity Foundation

The Womanity Foundation is a Swiss based organisation specialising in investing in and developing solutions to address gender-based issues. Whether it's innovating and delivering their own programmes or supporting selected social changemakers, they get involved to disrupt the status quo and accelerate change. This mission has led them to: work on the prevention of violence against women and girls, support grassroots organisations, girls' education, leverage media to promote gender equality, and most recently, support women's access to land rights.



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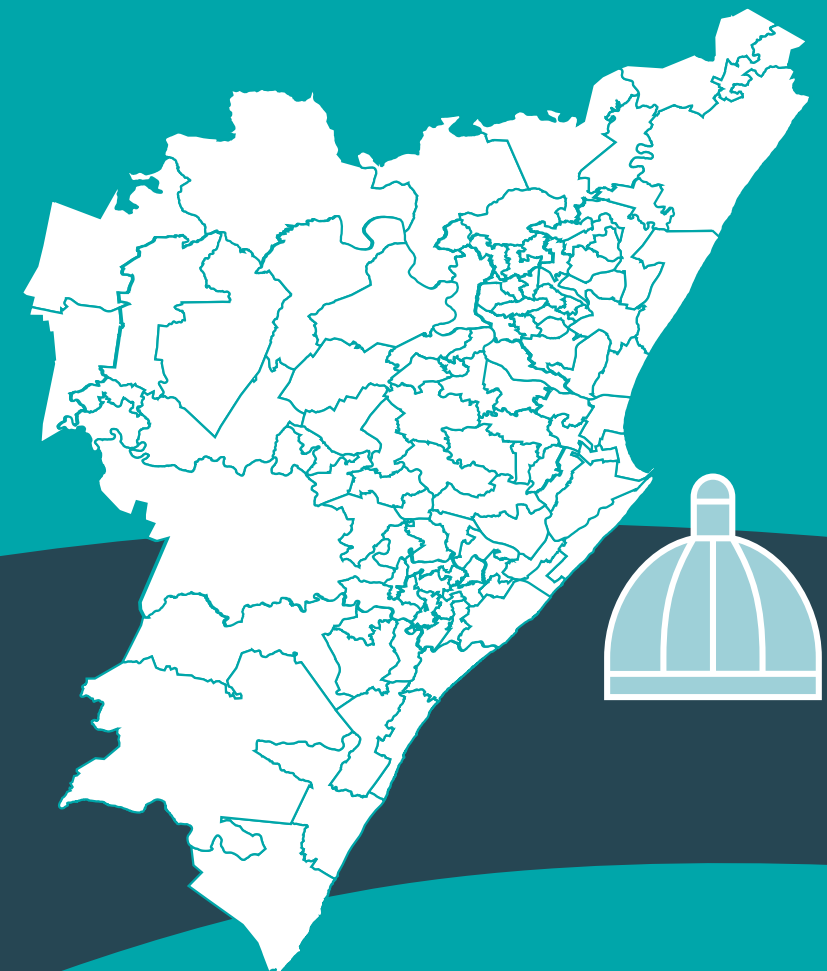
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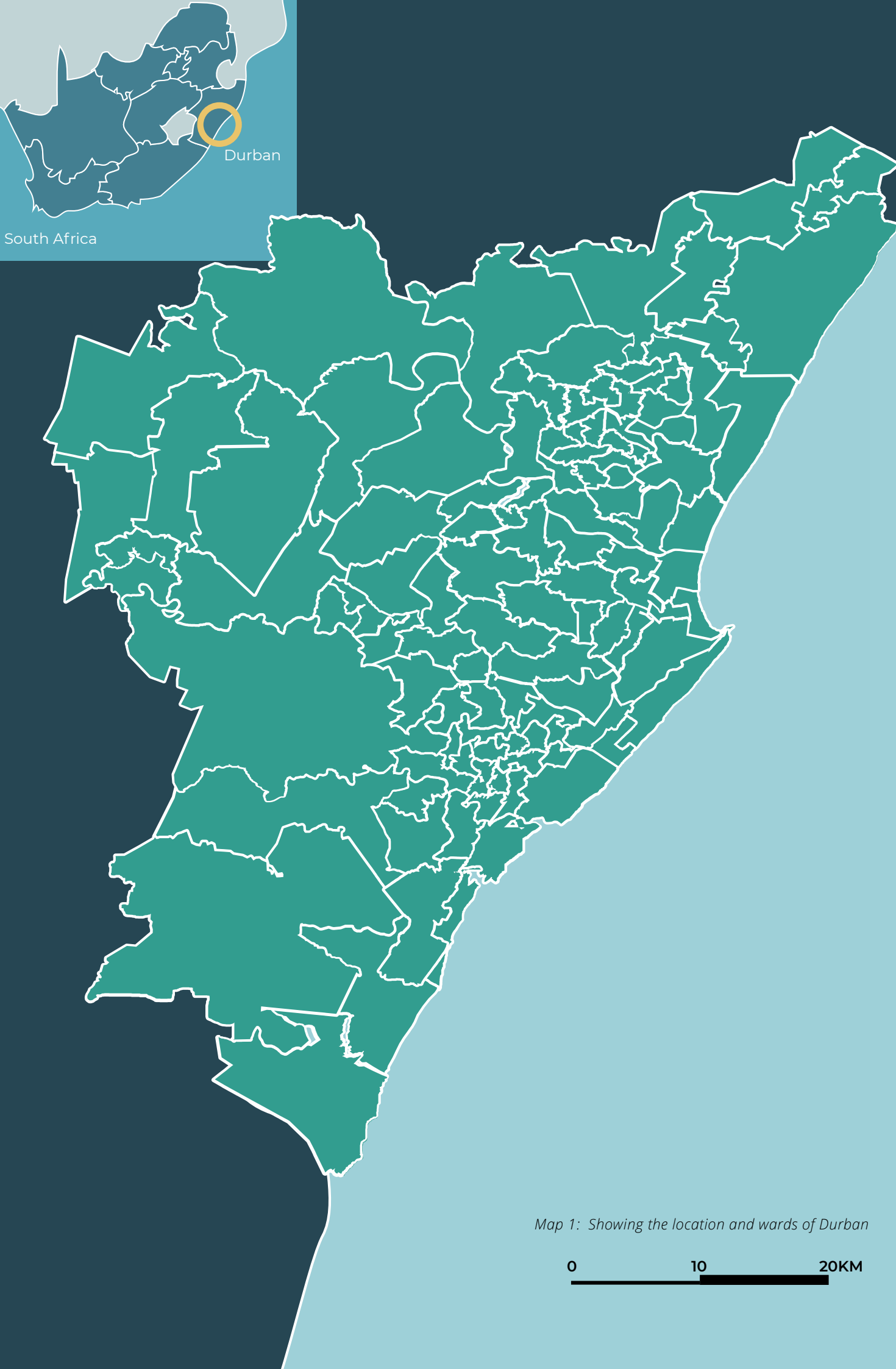
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List of Abbreviations

- GDF- Gugu Dlamini Foundation
- CBD- Central Business District
- CBO- Community-Based Organisation
- ECCC- Ethembeni Crisis Care Centre
- NGO- Non- Governmental Organisation
- NTA- National Taxi Alliance
- SANTACO- South African National Taxi Council

INTRODUCTION





Durban City

Durban is an African city situated in the province of KwaZulu-Natal. It is located on the eastern coast of South Africa and the municipality encompasses an area of 2,300km². This includes a 98 km stretch of relatively narrow coastal plain that gives way to major river valleys originating to the west of the city. It is managed and governed by the local government of eThekweni Municipality¹ (Map 1 shows the area under the jurisdiction of eThekweni Municipality). The metropolitan area includes areas that are both urban and rural in character.

Durban is home to approximately 3.5 million people and has a land area of 2,297 square kilometres.¹ This population makes it the third biggest in South Africa after Johannesburg and Cape Town. The gender breakdown of the population is 51% female and 49% male.¹

There are a few distinctive characteristics that are important in understanding Durban and its complex challenges. For example, city management in Durban is more complex than other South African metropolitan municipalities as a result of its dual governance system. The municipality shares the governance of 38% of the municipal area (97,000 hectares), located predominantly in its rural periphery. A large concentration of people continues to live in very poor, unserved conditions. These are further exacerbated by global drivers of change such as rapid urbanisation, globalisation and climate change. Additionally due to apartheid, Durban has a legacy of structural and social inequity which is apparent in all aspects of the city's life and functions. Durban's apartheid past has played a significant role in creating and shaping many of the challenges being experienced by the city and its residents.²

Like other developing countries, marginalised groups face multiple challenges pertaining to their everyday life in South African cities. unemployment conditions makes it particularly difficult for women to attain economic independence. Unemployment, violence, social and economic constructs along with mobility challenges keep women from utilising the urban opportunities as against their male counterparts.³

South Africa also has one of the highest incidences of violence against women in the world. At this point, women and children in South Africa are bearing the major brunt of a violent society. Living in fear and being constantly inhibited in their freedom of movement does not encourage gender equality.³ It curtails women's mobility and limits their ability to participate fully and freely as citizens.

Durban is home to approximately **3.5 million people** and has a land area of **2,297 sq. km.,** which makes it third largest city in South Africa.

Living in fear curtails women's mobility and limits their ability to participate fully and freely as citizens.

¹ Stats SA: Census 2011 <https://www.statssa.gov.za/>

² Durban Resilience strategy document, 2007, eThekweni Municipality

³ Research, Practice and Necessary Alliance- The Durban Experience by Nizaam Edwards, 2002

Map 1: Showing the location and wards of Durban

0 10 20KM

Women's Mobility in Durban

Significant differences exist in the travel habits of men and women. In general, women are more likely to engage in non-formal employment and are more likely to depend on taxi and walking modes to get to work. These modes are more suited to the dispersed, non-radial travel patterns associated with non-formal employment than traditional public transport modes. This often means that women bear a greater transport burden in terms of costs and time as compared to men. Men more frequently make use of other motorised transport modes (bus, train, car) and evidently have access to a larger variety of modal options than women.⁴

Walking as a mode of travel in low-income urban settlements is highly important, particularly for women. Walking evidently serves as a cost-reducing strategy and seems to be the preferred mode for short-distance trips of all types. It matches the dispersed travel patterns of women better than any other mode. Women, therefore, use walking more than men in almost all settlements. This means attention should be paid to the need for improved delivery of infrastructure and traffic management for the ease of pedestrian movement in all areas of Durban.

One can identify a combination of walking and use of informal taxis as the pattern of mobility for the women of the city, adhering to their travel needs in Durban. The importance of the taxi (informally shared ride) mode as a means of transport across all localities. Traditional formal public transport such as buses and trains should also be acknowledged. Overall, almost three-quarters of work trips and half of the other trips (excluding trips to school) are regularly made by taxi. The taxi mode is particularly important to women, who tend to use it more frequently than men. This appears to be because the flexibility of the taxi is better suited to the more dispersed travel patterns of female travellers for both work and non-work trips.⁶ However, in certain areas women pay more for taxi services than men (on a per-kilometre basis). Evidence suggests this is precisely because of the dispersion of women's destinations, which are either served through lower-volume, higher priced, routes or via multiple routes requiring transfers and payment of multiple fares. Higher taxi unit costs for women are particularly observed in the urban core and in the rural localities. Improved route planning and coordination – at present rare in the informal, fractious taxi industry - may in itself benefit women travellers in these locations.

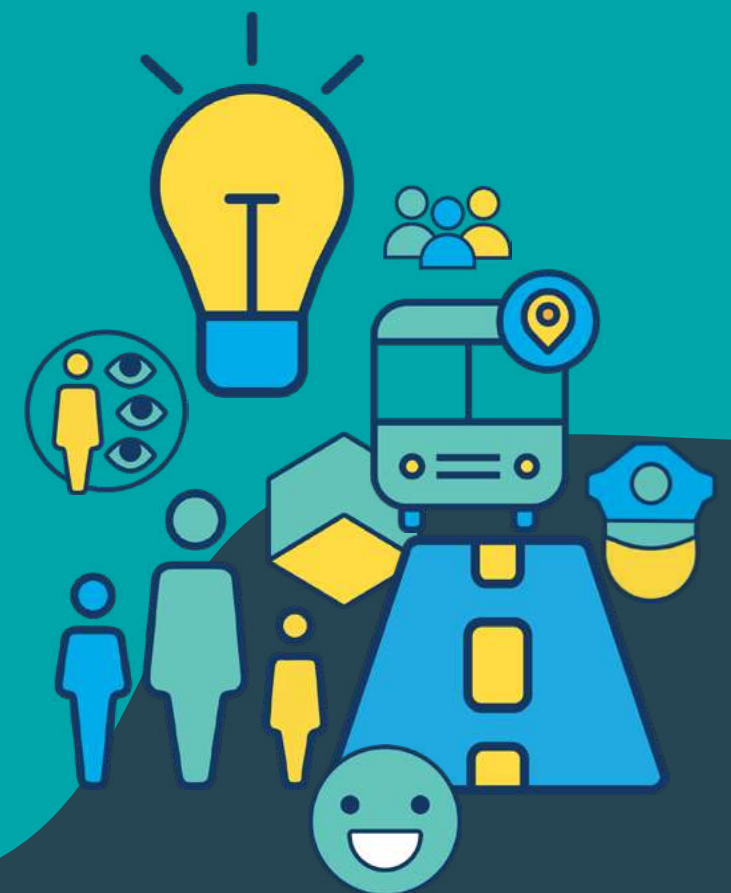
Though women choose taxis frequently as a mode of travel, studies also highlight that the infrastructure of the taxi ranks in Durban acts as an impediment in accessing the taxis conveniently and safely. In the taxi service industry, there are no strict laws or rules to guide their activity. As there are issues with government officials owning taxis, regulation is not prioritised. There are high rates of sexual harassment reported from taxi drivers. Many taxi ranks lack a dedicated space and other necessary physical infrastructure.

Transport and mobility contribute to the strategic empowerment of women by promoting access to take out the employment opportunities and growth. Therefore, to make cities accessible for women, provision of accessible and affordable transport is one of the most important elements.

⁴ Gender, Residential Location, and Household Travel: Empirical Findings from Low Income Urban Settlements in Durban, South Africa, Christoffel Venter, Vera Vokolkova & Jaroslav Michalek, 2007



PROJECT BACKGROUND



Project Background

In 2018, Safetipin and Soul City Institute for Social Justice (SCI) won the third Womanity Award that focussed on programmes creating safer urban environments for women. Safetipin is a technology platform that works to make communities and cities safer by collecting and providing safety-related data on a large scale through a set of mobile applications. At the core of Safetipin is the safety audit, a participatory tool for collecting and assessing the perception of safety in public spaces. Soul City Institute is an intersectional feminist organisation that works to ensure young women and girls enjoy substantive equality, with access to resources and opportunities that enable this. SCI has developed a social change model that combines prime time popular mass media and social media with social mobilisation and policy advocacy. This creates an enabling environment for individual and collective approaches to realising constitutionally guaranteed rights.

After receiving the award, Safetipin and SCI worked on processes to adapt the Safetipin methodology in Durban, South Africa. To adapt the Safetipin App to the local context, formative research was done by SCI to understand women's experiences while using buses, trains, and taxis. It was also key to establish the multi-stakeholder partnerships that are critical to the implementation and sustainability of the project. In collaboration with the eThekweni Municipality, the project was launched at the African Forum for Urban Safety held from 10-12 November 2019 in Durban.

Safetipin and SCI collaborated with the Safer Cities Unit of the municipality, part of the Safer Cities Strategy with UN-Habitat. Ethembeni Crisis Care Centre (ECCC) and Gugu Dlamini Foundation (GDF) were engaged as local partners to mobilise young women in the selected communities. These two organisations are part of the Masiphephe Network, which works with local structures to lead the community response to GBV prevention and mitigation. The National Taxi Association and City Celebrations were also engaged to do large-scale image data collection.

The collected data has been analysed in this report to identify the key safety concerns of women in public spaces. The specific recommendations have also been provided to improve the audited areas and taxi ranks of the city. The data generated will be used by the eThekweni Municipality to inform its Safe City Strategy, as well as to identify and design gender responsive interventions.

Project scope

As part of this project, Safetipin and SCI worked on the following key components:


- 1 *Adapting the Safetipin tool to suit the local needs and context.*
- 2 *Conducting formative research on the safety concerns of young women while using public transport.*
- 3 *Conducting safety audits in public spaces.*
- 4 *Collecting image data for spatial analysis on safety audit parameters.*
- 5 *Assessing physical infrastructure and gathering women commuters' experiences at selected taxi ranks.*
- 6 *Engaging the local stakeholders to co-create safety strategies to create a safe and inclusive Durban for women and girls.*

Methodology


Safetipin is aimed at generating data which complements the official statistics collected and inspire action to address the issue of making cities safer for women and girls. The data is collected using a set of mobile and web applications and made available to all users of the Safetipin mobile app (My Safetipin) as well as further analysed for use for the city governments, urban planners and other stakeholders.

At the core of the Safetipin applications is the Safety Audit. A safety audit is a participatory tool for collecting and assessing information about key parameters of public spaces. It is also used as a tool to record/capture the perception of safety of a user of public space. The safety audit measures both physical infrastructure and the social usage of a space. Based on the global experience of 20 years on safety audits, 8 key parameters namely, lighting, walk path, public transport, visibility, openness, people, gender diversity and security that define safety perceptions are fixed. In the audits conducted using the My Safetipin App, users also record their feeling as a parameter. Each parameter is rated 0/1/2/3 with 0 being a poor rating and 3 being good. The rubric for rating each of the nine parameters has been added in the annexure. These together help to understand the perception of safety of public spaces. Each safety audit results in a pin on the specific geo tagged location where the audit was performed and records the time and date. Results of the safety audit are aggregated to a 'Safety Score' for areas and neighbourhoods.







Lighting:
Availability of enough light to see all around you



Walkpath:
Condition of pavement or space on the road to walk




Public Transport:
Availability of public transport modes like metro, buses, taxi




Visibility:
Presence of shops, houses, vendors overlooking the street




Security:
Presence of formal police or private guards




People:
Number of people walking around



Gender Usage:
Presence of women and children in the public place



Openness:
Ability to see clearly and move in all directions



Feeling:
How safe one feels in the public space

Safetipin Applications:

A. Safetipin Nite

Safetipin Nite app is used to map the city's streets through photographs. The pictures thus taken are accessed on Safetipin portal and coded on a wide range of parameters linked to public safety. Further an analysis of the data is conducted to provide recommendations on how to improve inclusion and use of public spaces. For the project, the main roads as well as some communities have been mapped using Safetipin Nite application.



SAFETIPIN NITE

B. Safetipin Site

This is a web application used to collect information on selected public places or public services. For e.g., condition of public toilets, bus terminals, safety assessment inside the buses, last mile connectivity through metro/bus/ taxi etc. City administrations can access city-specific information collected through this customizable application and integrate them with existing city databases. Depending on the project's requirements, specific taxi ranks were identified for the detailed assessment through questionnaires. The questionnaires were designed by the project team in partnership with the local partner organisations.



SAFETIPIN SITE

C. My Safetipin App:

My Safetipin App is a smartphone application available to public for free on Android and Apple phones. The app is available for the users to conduct safety audits as well as view the safety score in a particular area or at an audit point. The other features of the app include tracking of friends and family on request, finding the safest route between two points and a list of nearby safe places in case of an emergency. In Durban, the app has been used by local organisations to conduct safety audits in their communities.



MY SAFETIPIN

For this project, all the three applications have been used to provide a comprehensive dataset on safety parameters for the city of Durban. Figure 1 showcases the assessment tools, analysis process and data outputs.



Fig. 1: Safetipin Methodology

CITY-LEVEL MAPPING USING SAFETIPIN NITE APPLICATION



City-Level Mapping Using Safetipin Nite Application

Safetipin Nite is a proprietary app of Safetipin which is provided to partner organisations for image data collection. The phone is mounted on the windscreen of a car and as the car moves, the app automatically clicks images of the street in landscape mode. These images are collected to analyse pedestrian's safety conditions at regular intervals. Using Safetipin Nite, the entire city road network is mapped with images which are then assessed on the Safetipin back-end technology platform.

The photographs collected through Safetipin Nite are uploaded onto the Safetipin server. These are then accessed on the portal and analysed against a wide range of parameters linked to safety and inclusivity of public spaces. For deeper analysis, a set of sub-parameters including Lighting, Walkpath, Public Transport, Visibility and Security are used for recording additional information (refer Annex 2 for the complete list). Google Maps are also used to identify certain sub-parameters. Every 100 meters, an audit is generated by using all the photographs collected around that point. It should be noted here that due to limited data on police patrolling routes in Durban, the security parameter has only recorded the accessibility to formal security i.e. a police station.

The data collection using Safetipin Nite in Durban happened in two phases.

The first phase of data collection was done in collaboration with the National Taxi Association in 2019. In November of that year, the Safetipin team conducted on-site training for NTA drivers using the Safetipin Nite app. The project area was divided into 10 zones and each driver was given a unique ID to log into the app. More than 5,700 images were collected in the first phase. These pictures were then uploaded onto a server, and 835 audit pins were generated.

The second phase of data collection happened between May-September 2021. For the data collection in the second phase, City Celebrations was hired to collect the data in different areas of Durban. A separate training session for using Safetipin Nite for the drivers and data navigators was conducted in May 2021. In this second phase of data collection, more than 50,400 images were collected, and analysed on safety audit parameters to generate 7,820 audits pins.

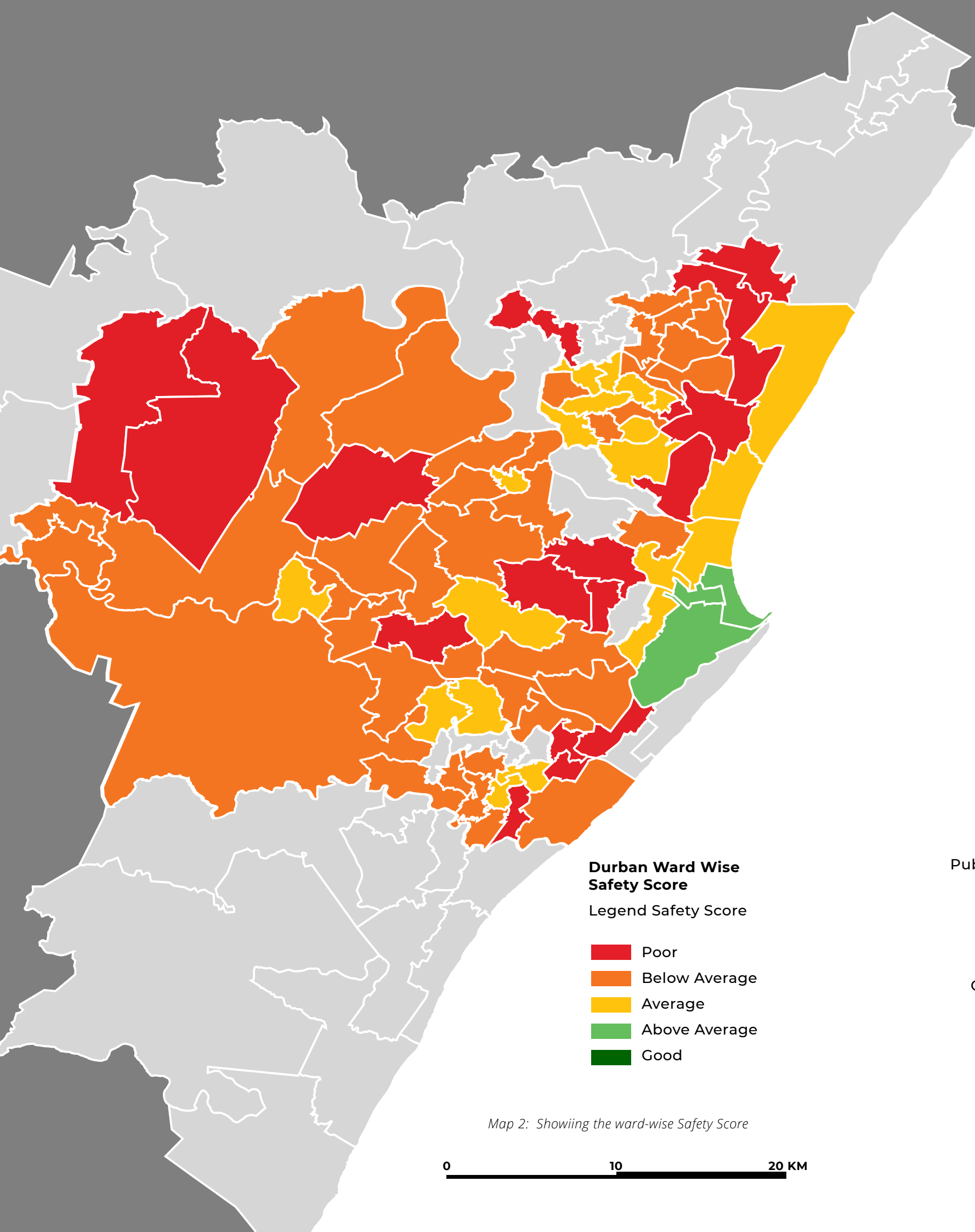
Of the audit parameters used for mapping and evaluation of public space, Lighting, Walkpath, Public Transport and Visibility are actionable parameters on which physical interventions are possible. People (presence of people on the streets) and Gender Usage (presence of women, children and others in the public domain) are used to measure the impact of the actionable parameters on safety, accessibility and inclusion in public spaces. Security and Openness are parameters which provide supplementary information for overall analysis. Findings on the actionable parameters could be used for physical interventions and initiatives towards improving safety for citizens on the streets.



Fig. 2: 'Safetipin Nite' App training session



Fig. 3: Project team with the drivers of National Taxi Association



Safety Score

More than 8,650 safety audits were generated and Map 2 shows overall safety score for the wards under the jurisdiction of eThekweni Municipality. The safety score at an audit location reflects the aggregated rating of all the parameters i.e. ranges from 0 (poor/unsafe) to 5, (good in terms of overall safety). The polygons in red and orange in the map show the wards where there is poor physical infrastructure as well as poor usage of the public space. A thorough analysis of all physical parameters combined found that only the wards falling under the central business districts (CBD) of Durban have been rated above average (coloured green). The parameters such as Lighting, Walkpath and Visibility in the CBD were rated higher than the rest of the wards in Durban which resulted in a higher safety score.

Figure 4 indicates the audit points distribution of parameters' ratings on a scale of poor and good. The bars show the rating on the scale of 0 to 3 where 0 is poor and 3 is good. Through the comparative representation, the graph shows that Walkpath and Lighting parameters have been rated the highest, and Security, People and Gender Usage have been rated the lowest among all parameters in the audited area of Durban. A thorough analysis of the individual parameters follows to further understand where there is a need for intervention to improve the safety in the city.

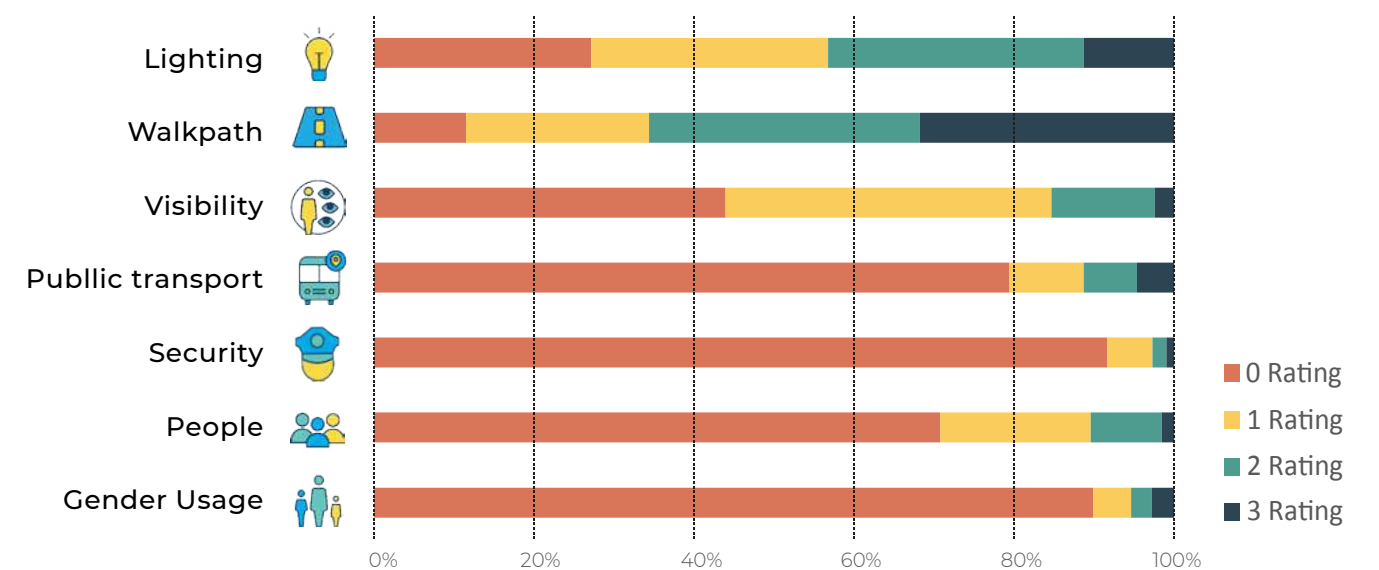
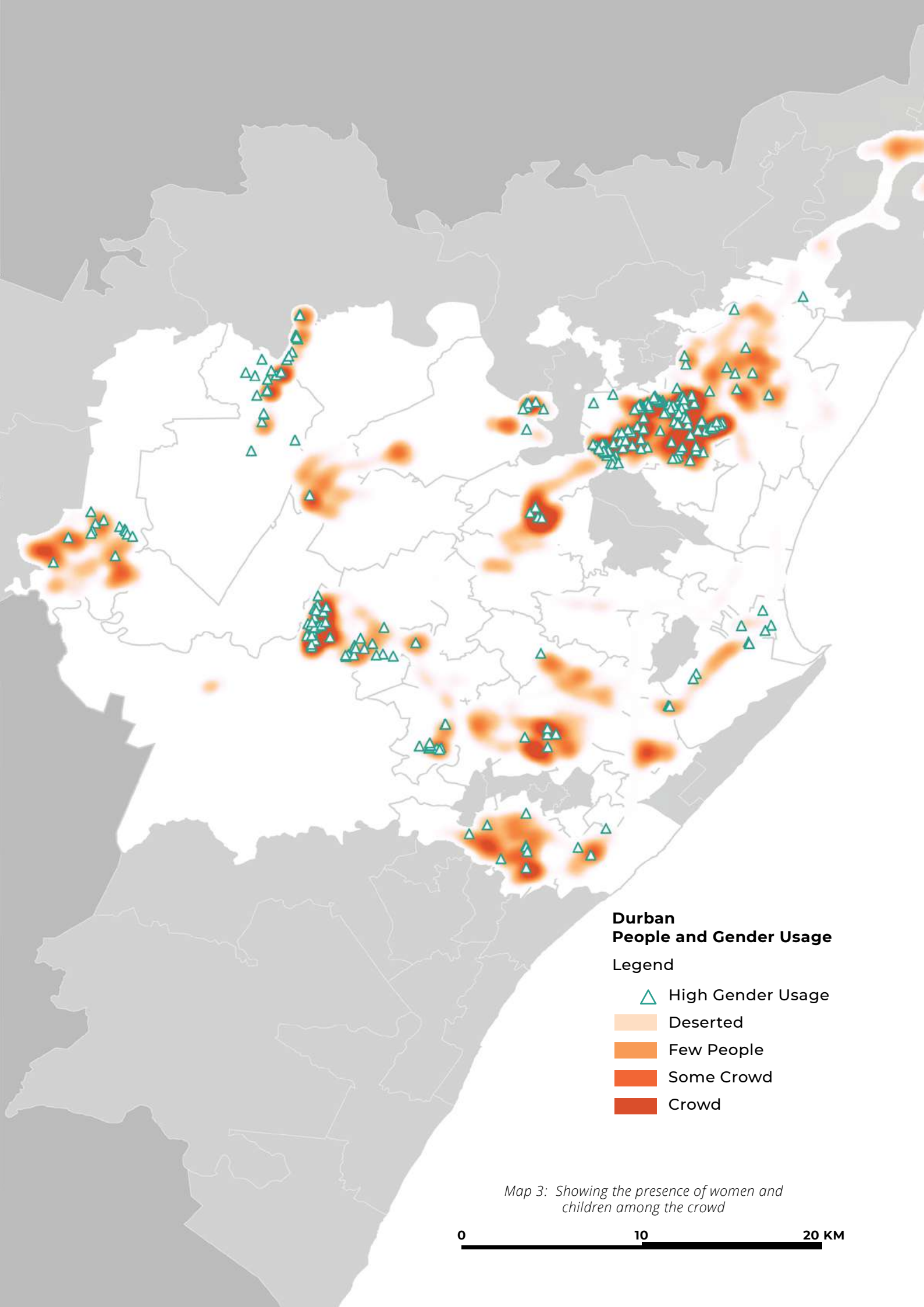


Fig. 4: showing the % distribution of parameter ratings



Map 3: Showing the presence of women and children among the crowd

Parameter: People and Gender Usage

The People parameter measures the number of people around at the time of the safety audit. This includes pedestrians and others who are using the public space. This parameter does not include shopkeepers, people in houses (they are counted in the Visibility parameter), or people in vehicles.

The Gender Usage parameter measures the gender diversity in a space. This determines the presence of women and children among the total number of people present. If there are very few people present, but they are all women or children, it would be considered a high rating for the Gender Usage parameter, even though the rating for the people is low. Map 3 shows the presence of the people and the presence of women and children. The gradient colour on the map shown on the map represents the rating of the People parameter. The points represent the audit points where the crowd present is of a diverse nature, meaning the rating of Gender Usage is high. The overall rating of People and Gender Usage has been very low in the audited areas of Durban city.

FINDINGS

71% of the audit points were recorded with no presence of people on streets after sunset

90% of the audit points were recorded with no women and children present in public spaces.

INTERVENTION AREA

Very few women and children in sight after dark in Durban. A mixed and diverse public space that is vibrant and busy could reduce the sense of fear. Activities to promote public engagement, especially targeted at increasing women participation in public spaces should be organised.



Fig. 5: Deserted Buthelezi Road



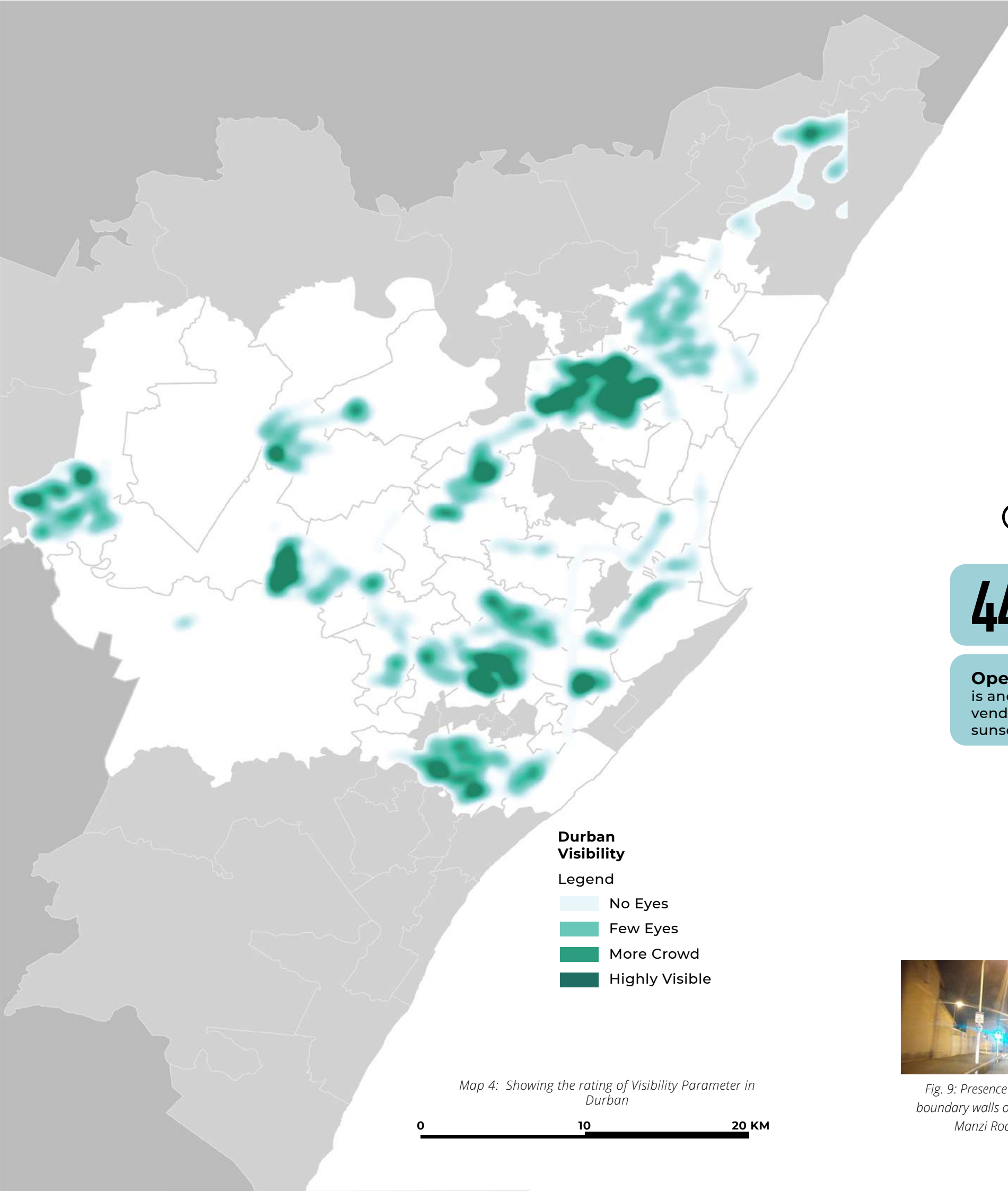
Fig. 6: Deserted Josiah Gumede Road



Fig. 7: Presence of people on Sydney Road



Fig. 8: Active Pardy Road



Parameter: Visibility

The Visibility parameter is based on the principle of “eyes on the street”. This refers to the elements of the street that ensure there is a visual connection between the street and the built environment to provide natural surveillance on the pedestrians using the space. This parameter includes windows and doors of shops or buildings that aids the perception of safety. It also includes the presence of street vendors or hawkers as they also contribute to the street life, thus enhancing perception of safety. Pedestrians using the public space do not contribute to this parameter as they are fleeting users of the space. Map 4 illustrates the ratings for the Visibility parameter.

FINDINGS

44% of the audited area had poor visibility with 1,125 points identified with non-porous high boundary walls.

Open grounds with no built form, is another reason for low visibility. Few vendors were spotted on the streets post sunset

INTERVENTION AREA

Provide dedicated space for street vendors and promote activities to increase the “eyes on the street”. This will help improve the visibility on the streets.

Place-making interventions should be done to re-activate dead spaces or abandoned buildings.



Fig. 9: Presence of high boundary walls on Gladys Manzi Road

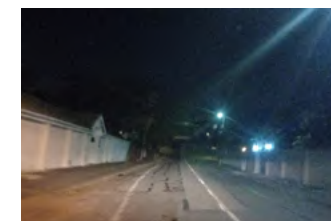


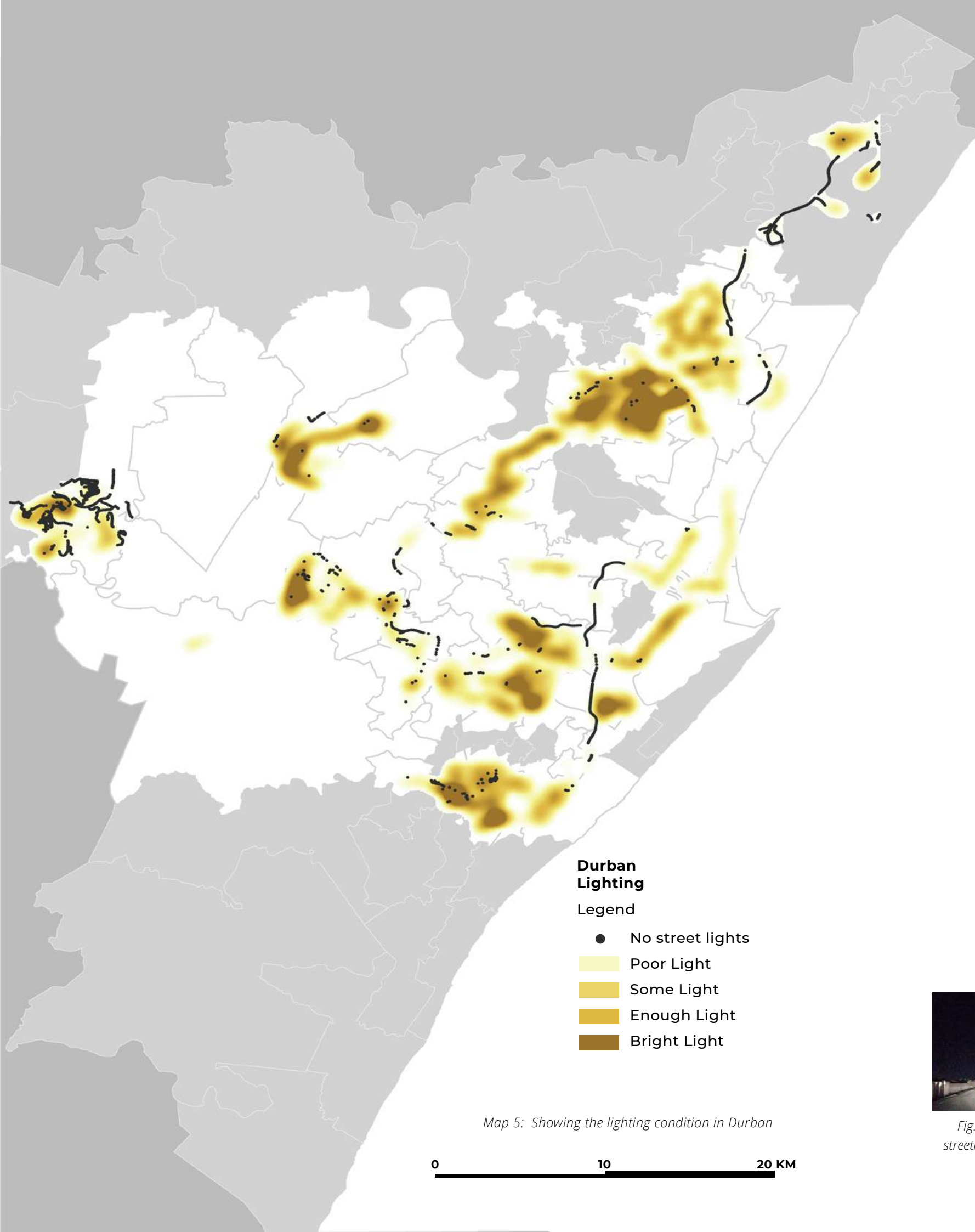
Fig. 10: Presence of high boundary wall on Vally View Road



Fig. 11: Presence of residences and shops on Old Main Road.



Fig. 12: Presence of shops on Lenny Naidu Drive Road



Map 5: Showing the lighting condition in Durban

Parameter: Lighting

The Lighting parameter measures the amount of illumination at a place, ranging from dark to bright. For this parameter, streetlights, light from houses, shops and street vendors are considered as sources. Temporary sources of light like the light from cars is not considered. Images collected in the daytime are also not considered for this parameter. Points which have a rating of 0 out of 3 are referred to as dark spots. These are places where there is either no lighting infrastructure present or where the existing lighting infrastructure is not functional at the time of the audit. Map 5 illustrates the rating of the lighting parameter in different wards of Durban city.

FINDINGS

1303 audit points were identified with no streetlights i.e. dark spots.

3159 audit points were identified with off streetlight i.e. non- functional streetlights.

266 audit points were identified with streetlights covered by leaves.

INTERVENTION AREA

Install new streetlights on these points.

Repair and maintain the existing non-operational streetlights.

Regular pruning of leaves to be done to ensure uniform lighting in the identified areas.



Fig. 13: Non functional streetlights on Intlansi Road



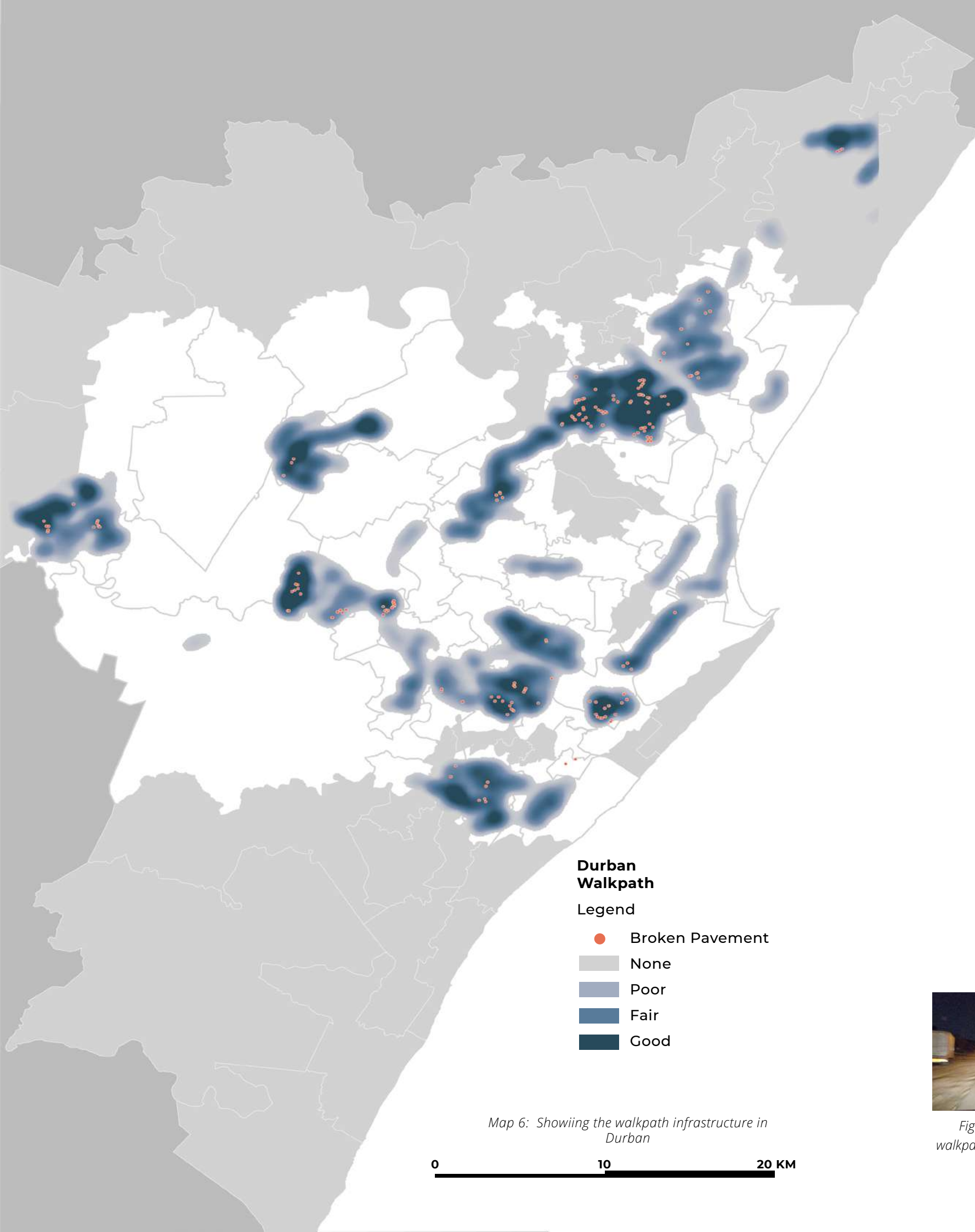
Fig. 14: Non functional streetlight on Zazi Road



Fig. 15: Well lit Sydney Road



Fig. 16: Well lit Ingcuze Road



Parameter: Walkpath

The Walkpath parameter indicates whether or not a person can comfortably walk on the street. This includes the quality of the pavement, or the space designated for walking along a road. If it is a residential lane, then the area for walking, along with the condition of the road (broken or obstructed), is assessed. The walkability of an area or space is indicative of the activity on the street and the level of comfort people feel while accessing the space. Streets with proper infrastructure for walking and crossings are essential for safe walking experiences for all user groups. Map 6 illustrates the ratings for the Walkpath parameter.

FINDINGS

2428 audit points were identified with no pavement.

183 audit points were identified with an unpaved path.

66 audit points were identified with broken pavements.

INTERVENTION AREA

Provide dedicated space for walking in these areas to make it pedestrian-friendly. Pedestrians, especially vulnerable groups, need at grade walking surfaces.

The available space for walking should be paved with paving blocks to provide a smooth surface for walking.

Repair the existing pavement to make it accessible for all vulnerable groups. This includes pavements with missing, broken or disjointed paving blocks, uneven manhole covers and other fixed objects that pose as hazards for pedestrians



Fig. 17: Absence of the walkpath on Phoenix Highway



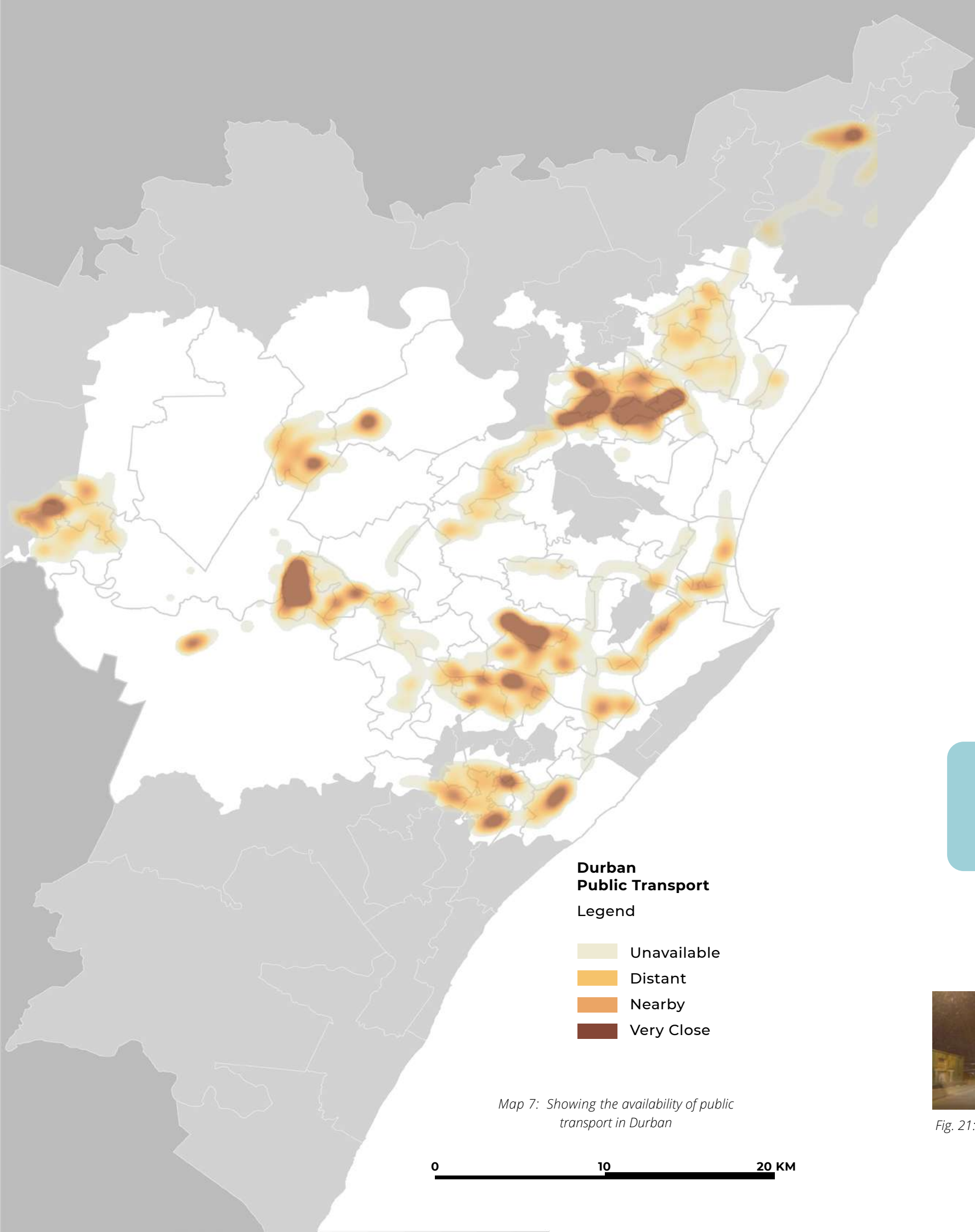
Fig. 18: Broken pavement on Sydney Road



Fig. 19: Well maintained pavement on Mkhathali Drive Road



Fig. 20: Well maintained pavement on Welbedatch Road



Parameter: Public Transport

The Public Transport parameter measures accessibility to public transportation. Public transport includes both formal and informal modes of transport such as buses, trains, taxi etc. The time taken to reach any mode of public transport adds to the ease of mobility in a city. A rating of 0 indicates that the nearest mode of public transportation is over 10 minutes walking distance away. Ratings 1,2 and 3 indicate between 5-10 minutes, between 2-5 minutes and under two minutes walking distance, respectively. Limited stops for formal public transportation attributes to the low rating of the Public Transport parameter. Taxis are the most used and convenient mode of transport in Durban. However, only the taxi ranks that could be identified on Google Maps have been mapped under this parameter. Map 7 illustrates the ratings for the Public Transport parameter. A detailed analysis of taxi ranks follows in the next section.

FINDINGS

92

bus stops and taxi ranks were assessed. Most of the transport stands didn't have shelter and other required infrastructure.

INTERVENTION AREA

Improve the infrastructure at the bus stops and taxi ranks by providing shelter, seating infrastructure and other amenities.



Fig. 21: Bus stop with no space for seating



Fig. 22: A taxi rank without any shelter on Gomtha Gudazi Road



Fig. 23: People waiting at the taxi rank



Fig. 24: Taxi rank with shelter.

ASSESSMENT AT TAXI RANKS USING SAFETIPIN SITE





Waiting Area Infrastructure



Lighting Infrastructure



Visibility around the Taxi Rank



Walkability around the Taxi Rank



Diversity of People using the Taxi Rank



Presence of Police or Private Security at or around the Taxi Rank



User Experience while waiting at the Taxi Rank

Fig. 25: Assessment Parameters

Assessment at Taxi Ranks using Safetipin Site

Transport use in South Africa is dominated by minibus “taxis” in both urban and rural areas. Additionally, there are metropolitan and provincial subsidised buses across all provinces. There are over 200 000 taxis, 25 000 buses and 585 000 trains in South Africa.⁵ They are operated by various taxi associations that are under umbrella bodies of South African National Taxi Council (SANTACO) and National Taxi Alliance (NTA).

Safety in public transport especially minibus taxis has become an issue of increased concern and attention in South Africa, after incidents of sexual harassment and violence against women have been widely reported. There is also limited research that focuses on the gendered experience in public transport. The need for safe public transport was highlighted by Soul City Institute in its Safe Taxis Campaign. Under this campaign, formative research to explore young women experiences of using minibus taxis, buses, and Metrorail services was conducted in 2019. FGDs were conducted in Mamelodi, KwaNdengezi and KwaMashu in groups of 12-15 young women (aged 18-26 years). The findings indicated that the location of public transport stop (bus stop/ taxi rank) and its surroundings are not safe; women raised concerns over the behaviour of taxi drivers and their assistants; lack of reliable security and accountability from public transport authorities. Based on the recommendations of the report, the project team selected taxi ranks for detailed assessment in terms of safety, accessibility and mobility.

Safetipin Site was then developed and designed to collect information through a detailed questionnaire (refer Annex 3) and pictures. The questionnaire was developed to capture general information on taxi ranks, assess physical infrastructure, services and last mile connectivity. Additionally, the form was used to capture social usage and user experiences at the taxi ranks. Figure 25 shows the assessment parameters. The findings at each taxi rank is discussed in the next section.

⁵ Department of Transport, 2018



Bester Taxi Rank, KwaMashu

Location: Ntuzuma Road
Access points: 2 entry gates and 1 exit gate
No. of taxis operating from the rank: More than 100
Operation timings: 4:00 am to 7:00 pm
Operated by: SANTACO (South African National Taxi Council)
Distance from the nearest Bus/Railway station: 2km



Waiting area:

The waiting area was identified as a dedicated space with shelter for commuters, however it was reported as vandalised. There was no furniture provided for the commuters to sit on. Open garbage dumping and broken dustbins were seen in and around the waiting area of the Bester taxi rank. A public toilet was reported functional at this taxi rank.



Visibility:

The presence of shops, street vendors and temporary shops were reported inside and outside the taxi rank at the time of the audit. However, there were no dedicated vending zones allocated at the taxi rank.



Lighting:

Overall, Lighting parameter was rated below average. The sources of light present at the taxi rank were a light post at the taxi rank, streetlight and shops. Auditors reported that the light sources present in and around the taxi rank were inadequate as well as non-functional.



Walkpath:

The pedestrian area in and around the taxi rank was paved. No elements of universal accessibility to access the taxi rank such as ramps, curb ramps or tactile tiles were seen other than handrails in a few places.



Fig. 26: Taxi rank with no space for seating



Fig. 27: Absence of dedicated taxi bays



Fig. 28: Poor visibility outside the taxi rank due to high boundary walls



People and Gender Usage:

A diverse crowd of people was seen at the taxi rank. More than 100 people were reported using the taxi rank at the time of audit. Of this, 50% were women and children.



Security:

No formal security was reported at or around the Bester taxi rank. Antisocial activities such as theft, robbing, catcalling, inappropriate touching and threats using weapons, were reported on a daily basis.



Perception of Safety:

The general feeling among the people auditing the taxi rank was reported as frightening due to the lack of formal security. Auditors reported antisocial activities like theft and catcalling happening in the taxi rank. Auditors also noted a large presence of people who are regarded by the community as "Woonga[1] addicts". A sense of fear in women while accessing the taxi rank was also reported due to antisocial activities.



Fig. 29: Unorganised parking



Fig. 30: Closed public toilet



Fig. 31: Poorly maintained taxi rank

User Experience and Comments

"There are no benches to sit while waiting."

"Light bulbs are there but four of them are not working."

"They (people using the taxi rank) are very scared, they don't even want to talk."

User Experience and Comments

"There is a need for security."

"Women are being sworn at by men and robbed. Even touched anywhere"

"This taxi rank is not safe at all. People are being robbed everyday"

KwaMashu Station Taxi Rank

Location: Malandela Road
Access points: 1 entry gate and 1 exit gate
No. of taxis operating from the rank: More than 100
Operation timings: 4:00 am to 8:30 pm
Operated by: SANTACO (South African National Taxi Council)
Distance from the nearest Bus/Railway station: 500m

User Experience and Comments

"Some taxi workers use the tree to urinate."

"Some driver's assistants don't respect women. They are identified by reflective jackets. Some men just urinate wherever they want, they don't use toilets."

"There are many people passing by to the nearest station of KwaMashu."



Waiting area:

The waiting area was identified as a dedicated space with shelter for commuters. The amenities available in the taxi rank were public toilets, a drinking water kiosk and benches. The waiting space was found to be inadequate compared to the footfall of the commuters. Despite dustbins being provided, open garbage dumping was seen in and around the waiting area of the taxi rank.



Visibility:

The presence of many vendors, temporary shops and shop were reported inside and outside the taxi rank at the time of audit. Dedicated vending zones were also seen.



Lighting:

Lighting parameter was rated to be above average. The sources of light present at the taxi rank were a light post at the taxi rank, streetlight, advertisement banners, vendors and shops. Auditors found it adequate for the clear sight of vision.



Walkpath:

The pedestrian area in and around the taxi rank was found paved. No elements of universal accessibility such as ramps, curb ramps, tactile tiles were seen to access the taxi rank.



People and Gender Usage:

A diverse crowd of people was seen at the taxi rank. More than 100 people were reported using the taxi rank at the time of audit. Of these, 50% were reported as women and children.



Security:

The presence of private security guards and taxi security guards was reported at or around the taxi rank. However, women users reported incidents of street harassment including catcalling and inappropriate touching happening on a daily basis.



Perception of Safety:

The general feeling among the people auditing the taxi rank was reported as comfortable due to the presence of security guards. However, auditors reported the presence of "Woonga addicts" in and around the taxi rank premises.

User Experience and Comments

"Women are safe in terms of violence, but they get molested."

"The waiting area is paved but the space (waiting area) is too small."

"They (security personnel) don't wear uniform, so it is not easy to identify them."



Fig. 32: Absence of seating infrastructure at the taxi rank



Fig. 33: Well-lit taxi rank



Fig. 34: Well-lit waiting area



Fig. 35: Unorganised Taxi Bays



Fig. 36: Closed public toilet inside the taxi rank



Fig. 37: A vehicle parked on the pavement

Soldier's Way Taxi Rank, Durban

Location: Soldier's Way Road
Access points: 2 entry gates and 2 exit gates
No. of taxis operating from the rank: More than 100
Operation timings: 4:00 am to 9:30 pm
Operated by: SANTACO (South African National Taxi Council)
Distance from the nearest Bus/Railway station: 500m

User Experience and Comments



Waiting area:

The waiting area was identified as a dedicated space with shelter for commuters with no furniture provided for the commuters to sit and wait. Despite dustbins being present, open garbage dumping was reported by the auditors in and around the waiting area of the taxi rank. Public toilets were reported functional.



Visibility:

The presence of shops, street vendors and temporary shops were reported inside and outside the taxi rank at the time of the audit. However, there were no dedicated vending zones allocated at the taxi rank.



Lighting:

Overall, Lighting parameter was rated to be above average. The sources of light present at the taxi rank were a light post at the taxi rank, streetlight, and shops. The light sources were found inadequate as well as non-functional by the auditors at the time of the audit.



Walkpath:

The pedestrian area in and around the taxi rank was found paved. No elements of universal accessibility to access the taxi rank such as ramps, curb ramps and tactile tiles were found other than handrails in a few places.



People and Gender Usage:

Diverse crowd of people was seen at the taxi rank. More than 100 of people were reported using the taxi rank at the time of audit. Of these, 50% were reported as women and children.



Security:

The presence of private security guards, taxi security guards and SAPS (South African Police Service) personnel was reported at or around the Soldier's Way taxi rank. However, incidents of catcalling and inappropriate touching were reported on a daily basis.



Perception of Safety:

The general feeling of the people auditing the taxi rank was reported as comfortable due to the presence of formal security. Auditors reported activities like theft happening in and around the taxi rank in the past, however the presence of formal security has apparently addressed this issue.

User Experience and Comments

"The waiting area is paved but the space (waiting area) is too small."

"They (women using the taxi rank) are safe in terms of violence."

"Women are safe except for inappropriate touching."



Fig. 38: Poorly lit taxi ranks



Fig. 39: No dedicated vending zone



Fig. 40: Garbage blocking the pavement



Fig. 41: Open drains inside the taxi rank



Fig. 42: Closed public toilets



Fig. 43: No seating infrastructure inside the taxi rank

KwaMamdekazi Taxi Rank, KwaNdengezi

Location: Old Richmond Road
Access points: No formal premises
No. of taxis operating from the rank: 50 - 100
Operation timings: 4:00 am to 2 pm
Operated by: KwaNdengezi Taxi Association
Distance from the nearest Bus/Railway station: 500m

User Experience and Comments

"If you face some challenges in a taxi there is no number that you can contact to assist you or solve your problem. Sometimes drivers are rude to passengers they don't treat them well."

"Some streetlights are not working; the place is not safe for people. Anything could happen when it is dark."

"There is no police station around and there is no security guard. I feel like the rank is not safe."



Waiting area:

No waiting area was found as the taxi rank was identified as an on-street taxi rank (informal). Taxis operate from roadside locations. No amenities were available in the taxi rank. Open garbage dumping was seen in and around the informal waiting location of the KwaMamdekazi taxi rank.



Visibility:

Despite a designated vending zone, many vendors and temporary shops were reported present around the taxi rank at the time of audit.



Lighting:

Lighting parameter was rated below average. The sources of light present at the taxi rank were a light post at the taxi rank, taxi headlights and shops. The light sources were found to be inadequate as well as non-functional by the auditors at the time of audit.



Walkpath:

The pedestrian area in and around the location of the taxi rank was found to be broken. Obstructions such as vehicular parking, light poles and garbage were found on the walkpath. No elements of universal accessibility such as ramps, curb ramps and tactile tiles were found to access the taxi rank.



People and Gender Usage:

Diverse crowd was seen at the taxi rank. More than 100 people were reported using the taxi rank at the time of audit. Of these, 50% were reported as women and children. However, there was no female staff seen at the taxi rank at the time of the audit.



Security:

One rank manager and taxi association guard were seen at the taxi rank. Complaints could be registered with them. Incidents of theft, selling of tobacco products and street harassment were seen happening around the taxi rank by the users.



Perception of Safety:

Auditors reported that the women were able to use this taxi rank because it was an open space, providing them natural surveillance with no boundary walls around. However, people auditing the taxi rank reported feeling uncomfortable in absence of enough security, and antisocial activities like selling of drugs, theft and catcalling were seen.

User Experience and Comments

"There is one shelter but it's not big enough for the number of people that use the rank. It's not big enough even for the drivers alone. People wait in line near the taxi that they are going to board."

"Male drivers take advantage of women they just call them with any names and it is inappropriate."

"There is no bus stop sign. It would be difficult for people who are not familiar with the place they just won't know where to stand some bus drivers pass if you are not in a correct bus stop."



Fig. 44: Inadequate lighting at the taxi rank



Fig. 45: Absence of a universally accessible walkpath



Fig. 46: On-street parking of taxis



Fig. 47: No seating infrastructure for the commuters



Fig. 48: A taxi parked on the pavement



Fig. 49: Inadequate lighting at the taxi rank

Zwelibomvu Taxi Rank, KwaNdengezi

Location: Mr 489 Road
Access points: No formal premises
No. of taxis operating from the rank: 1 - 50
Operation timings: 4:00 am to 2 pm
Operated by: KwaNdengezi Taxi Association
Distance from the nearest Bus/Railway station: 8km

User Experience and Comments

"This is a rural community, so houses are far apart from each other. The people cannot walk to the rank which means that the taxis have to leave the rank and go around collecting people from their stops."

"There are no toilets and shelters it become a problem when it is raining."

"The taxi rank is too far from the bus and train station."



Waiting area:

No dedicated waiting area was seen as the taxi rank was identified as an on-street taxi rank (informal). Taxis operate from roadside locations. No amenities other than a drinking water tank was available at the location. Open garbage dumping was seen around the Zwelibomvu taxi rank.



Visibility:

Very few vendors and temporary shops were reported around the taxi rank at the time of audit. The space around the taxi rank was found deserted during early morning hours.



Lighting:

Lighting parameter was rated poor. The sources of light present at the taxi rank were a light post, taxi headlight and shops. The auditors reported non-functional sources of light at the time of audit.



Walkpath:

The pedestrian area in and around the location of the taxi rank was unpaved. No elements of universal accessibility such as ramps, curb ramps, and tactile tiles were found to access the taxi rank.



People and Gender Usage:

At the time of audit, the taxi rank was deserted with no commuters seen around the taxi rank. Being a small neighbourhood with houses situated at a distance from each other, taxis usually go around and pick up people from their houses.



Security:

One rank manager and taxi association guard were seen at the taxi rank. Complaints could be registered with them. No antisocial activity was reported happening in and around the taxi rank at the time of audit.



Perception of Safety:

The general feeling of the people auditing the taxi rank was reported as comfortable. The behaviour of community people and taxi drivers was found to be good. Presence of people in communities around the taxi rank was found as an aiding factor for women to access the taxi rank.

User Experience and Comments

"There is no waiting area inside the rank as the people have to wait at their stops to be collected by the taxi."

"There is no formal security around the rank."

"The rural area is different from the township area in the way they treat women. Drivers were very welcoming at Zwelibomvu rank and that it was not crowded made me feel okay to be there. I did not feel unsafe."



Fig. 50: Inadequate lighting at the taxi rank



Fig. 51: The absence of dedicated taxi bays at the taxi rank



Fig. 52: Deserted taxi rank



Fig. 53: An absence of shelter at the taxi rank

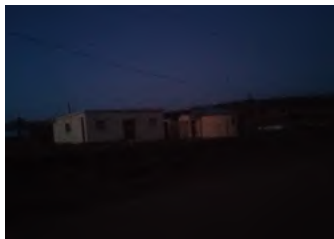


Fig. 54: The deserted roads around the taxi rank



Fig. 55: Inadequate lighting at the taxi rank

KwaNdengezi Taxi Rank

Location: Tom Tom Road
Access points: 5 gates
No. of taxis operating from the rank: More than 100
Operation timings: 4:00 am to 2:00 pm
Operated by: KwaNdengezi Taxi Association
Distance from the nearest Bus/Railway station: 50m

User Experience and Comments

"The bus stop is opposite the taxi rank, there are quite a no. of buses during this time. There is a gravel pathway, and the area is polluted. There are shops nearby and streetlights."

"Most of the area is dark during early morning. The only source of light in the rank are the taxi headlights and streetlight."

"During the day it is not as scary as there are a lot of people around & there is light."



Waiting area:

The waiting area was identified as a dedicated space with no shelter for commuters. However, there was no furniture provided for the commuters to sit and wait. Open garbage dumping was seen in and around the waiting area of the taxi rank. The other amenities include public toilets and an ATM.



Visibility:

Despite a designated vending zone, many vendors and temporary shops were reported present around the taxi rank at the time of audit. However, the taxi rank location was found deserted during early mornings and late nights.



Lighting:

Lighting parameter was rated below average. The sources of light present at the taxi rank were a light post, taxi headlights and shops. The auditors reported the light sources as inadequate and non-functional sources of light at the time of audit.



Walkpath:

The pedestrian area in and around the taxi rank was found paved but it was found blocked due to poles and vendors occupying the pavement. No elements of universal accessibility to access the taxi rank such as ramps, curb ramps, tactile tiles and handrails were found.



People and Gender Usage:

A diverse crowd was seen at the taxi rank. Around 100 people were reported using the taxi rank at the time of audit. Of these, women and children were reported to be around 35%.



Security:

One rank manager was seen at the taxi rank who could be approached for any complaints. A police station was situated at around 100 m from the taxi rank. However, incidents of sexual harassment and the sale of alcohol and tobacco products was reported happening in and around the taxi rank at the time of audit.



Perception of Safety:

The general feeling of the people auditing the taxi rank was reported as frightening during early mornings and late nights. It was found that due to a lack of well-lit spaces in and around the taxi rank and the closed gates, women commuters found it difficult to access the taxi rank.

User Experience and Comments

"It's a frightening area to be around in the early mornings as it is too dark to see anyone coming your way unless they are already near you. Most of the gates into or out of the rank are locked and there is a dark passageway near the rank."

"There are no securities around, but there is a rank manager who is in charge of the drivers and the passengers can report to him/her if there is any theft or if they have any other complaints."

"They (security personnel) don't wear uniform, so it is not easy to identify them."



Fig. 56: Inadequate lighting at the taxi rank



Fig. 57: Poor visibility around the taxi rank



Fig. 58: Lack of seating infrastructure inside the taxi rank



Fig. 59: Open garbage dumping on the walkpath around the taxi rank



Fig. 60: Functional public toilets inside the taxi rank



Fig. 61: No shelter for the commuters

Recommendations

Civic Infrastructure

Improve lighting in and around the taxi ranks

Availability of streetlights is one of the most important factors adding to the perception of safety. This is of even higher importance for women. It is extremely important that sufficient lighting is provided at all taxi ranks so that women can access them after dark without fear or hesitation. Also, maintenance of the source of the lights needs to be ensured.

Provide a safe and accessible walkpath

It is important that women feel safe while walking to - and waiting at - the taxi rank. Build obstruction-free footpaths and proper shelter at the waiting area with supporting services like directions signage, public toilets etc. Also, footpaths should be equipped with elements of universal accessibility to improve access for differently abled, elderly and other vulnerable groups.

Promote mixed-use built environment around taxi ranks

Areas around taxi ranks should be planned for multiple activities such as residential, commercial etc. to ensure that the area is active throughout the day. Creating “eyes on the streets” by allocating hawker and vendor zones could help women feel more comfortable while walking to their homes, especially during late evening hours.

Provide information about taxi routes and schedules

Information about taxi timings and routes should be provided at all taxi ranks. Providing real-time information about taxis through mobile applications and websites could help in reducing waiting time at taxi ranks. Additionally, help desks with a staff/timekeeper could be provided at taxi ranks.

Provide signage and advertisements in taxis and at the taxi ranks

Signage and advertisements warning against sexual harassment and other antisocial activities should be displayed inside the taxis as well as at the taxi ranks. Emergency helpline numbers should also be highlighted.

Awareness and Capacity Building

Gender sensitisation training

Training for taxi conductors, drivers and taxi rank managers should be conducted periodically on responding to grievances raised by women and providing support accordingly.

Communication campaigns on women safety

Campaigns should be conducted to increase civic awareness about women’s rights and safety. These campaigns could focus on encouraging women to report harassment, and bystanders to assist women. Such campaigns could be initiated by local NGO’s that could also support women in case of crisis.

Institutional Reforms

Increasing women’s employment in the taxi ranks

Consistent efforts to be made to gradually increase the share of women employees at taxi ranks at all levels as service provider (management, security, services, and operations). Supporting infrastructure for care work like creches, primary schools, health centres, women hostels etc should be planned within 500 m radius of the taxi ranks to promote more women to join transport sector.

Best Practices from other cities of South Africa



Fig. 62: Designed seating space inside taxi rank



Fig. 63: Well lit entrance of Taxi rank



Fig. 64: Allocated space for vendors



Fig. 65: Amenities at the taxi ranks



Fig. 66: The exterior of a female-friendly toilet



Fig. 67: Well designed boarding and alighting taxi bays



Fig. 68: Well designed waiting area



Fig. 69: Universally accessible Pedestrian path inside the taxi rank

COMMUNITY-LED AUDITS USING MY SAFETIPIN APPLICATION



Community-led Audits Using My Safetipin Application

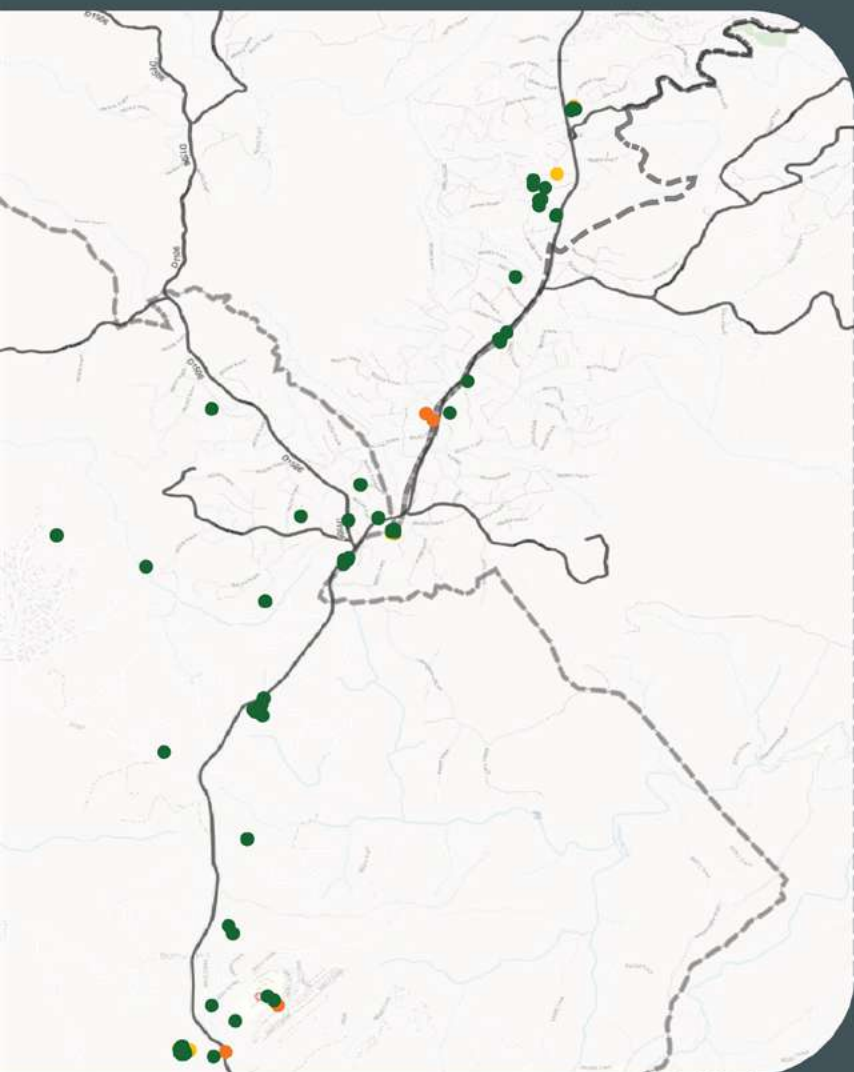
My Safetipin is a smartphone application which is used to collect crowd-sourced data on safety in cities. The app is available for the users to conduct safety audits as well as view the safety score in a particular area or at an audit point. Other features of the app include tracking of friends and family on request, finding the safest route between two points and a list of nearby safe places in case of an emergency.

The community level data collection using the My Safetipin app happened in two phases. In November 2019, the Safetipin team visited Durban and worked with trained volunteers from Masiphephe Network (Ethembeni Crisis Care Centre (ECCC) and Gugu Dlamini Foundation (GDF)) to conduct safety audits using the My Safetipin app. The audits were carried out in two selected areas of Durban city: KwaMashu and KwaNdengezi. Due to the outbreak of COVID-19 the exercise of auditing the selected areas was delayed. In July 2020 a refresher training session was conducted for the volunteers. After that, 10 volunteers were selected from each neighbourhood for the data collection process. The volunteers identified hotspots and important public places to audit within their neighbourhood. Using the My Safetipin app, the volunteers conducted 401 safety audits between August-September 2020 as part of the first phase of data collection. Out of these audits, 160 safety audits were conducted in the KwaNdengezi area, and 241 safety audits were conducted in the KwaMashu area. The audits were carried out between 4 pm and 9pm every day.

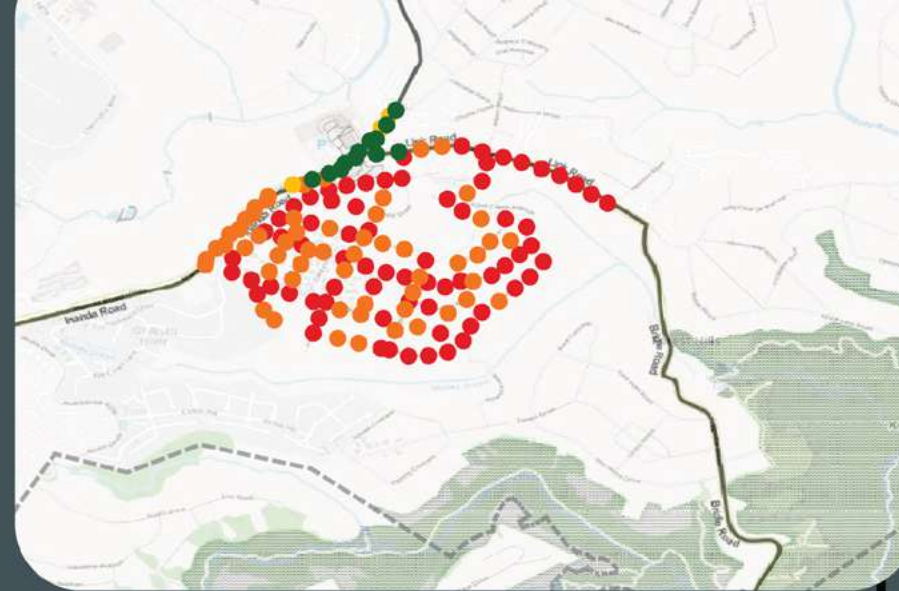
The second phase of data collection happened in the areas of Phoenix and Hillcrest. A training session for using the My Safetipin app was conducted for the new volunteers from GDF and ECC for this phase of data collections. In total the volunteers conducted 418 safety audits between August-September 2020 as pzoenix area, 136 safety audits were conducted in the Nyuswa area and 82 safety audits were conducted in the Molweni area.

Map 8 on page60 shows all the community areas that were audited using My Safetipin App. More than 1000 audits were done by women volunteers. Each parameter is rated on the scale of 0 to 3 (refer Annex 1 for rubric) where 0 is poor and 3 is good rating. The bar graph shows the average ratings of the parameter for each area as compared with the average ratings of the parameter at the city level (as shown by line graph). Through the comparative representation, it is highlighted that most of the parameters are rated below average. Walkpath and Lighting parameters have the highest ratings in most of the areas, followed by the Visibility parameter. The lowest ratings were recorded for the Security and Gender Usage parameters.

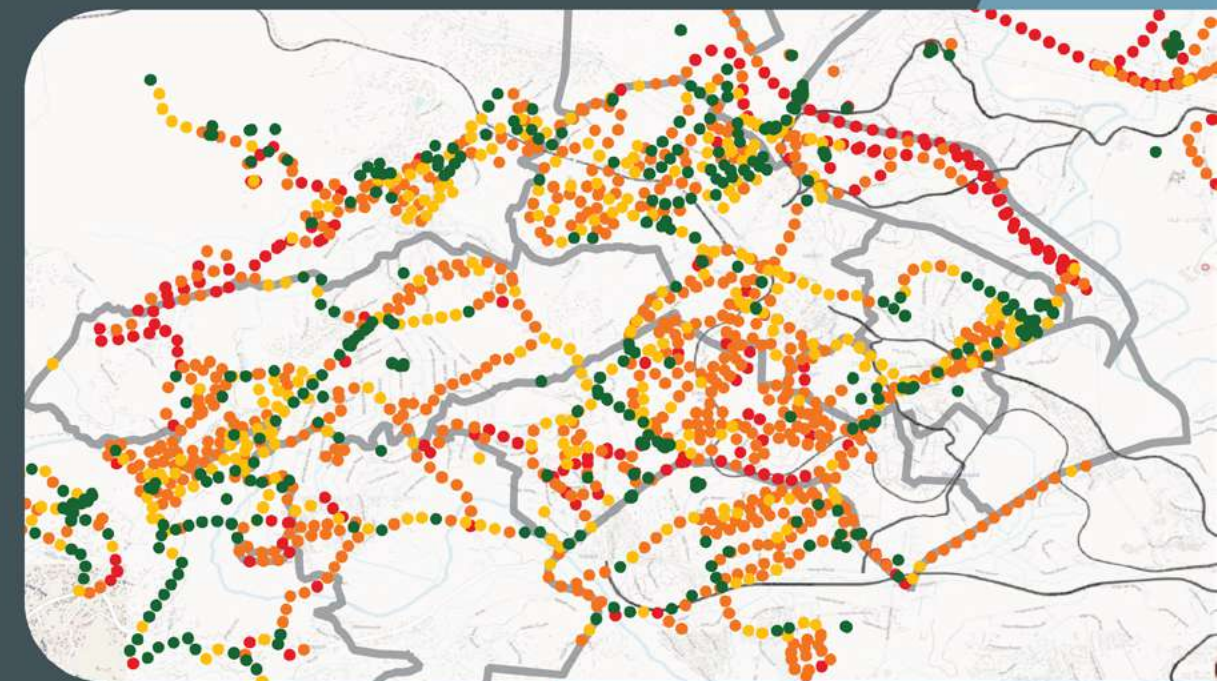




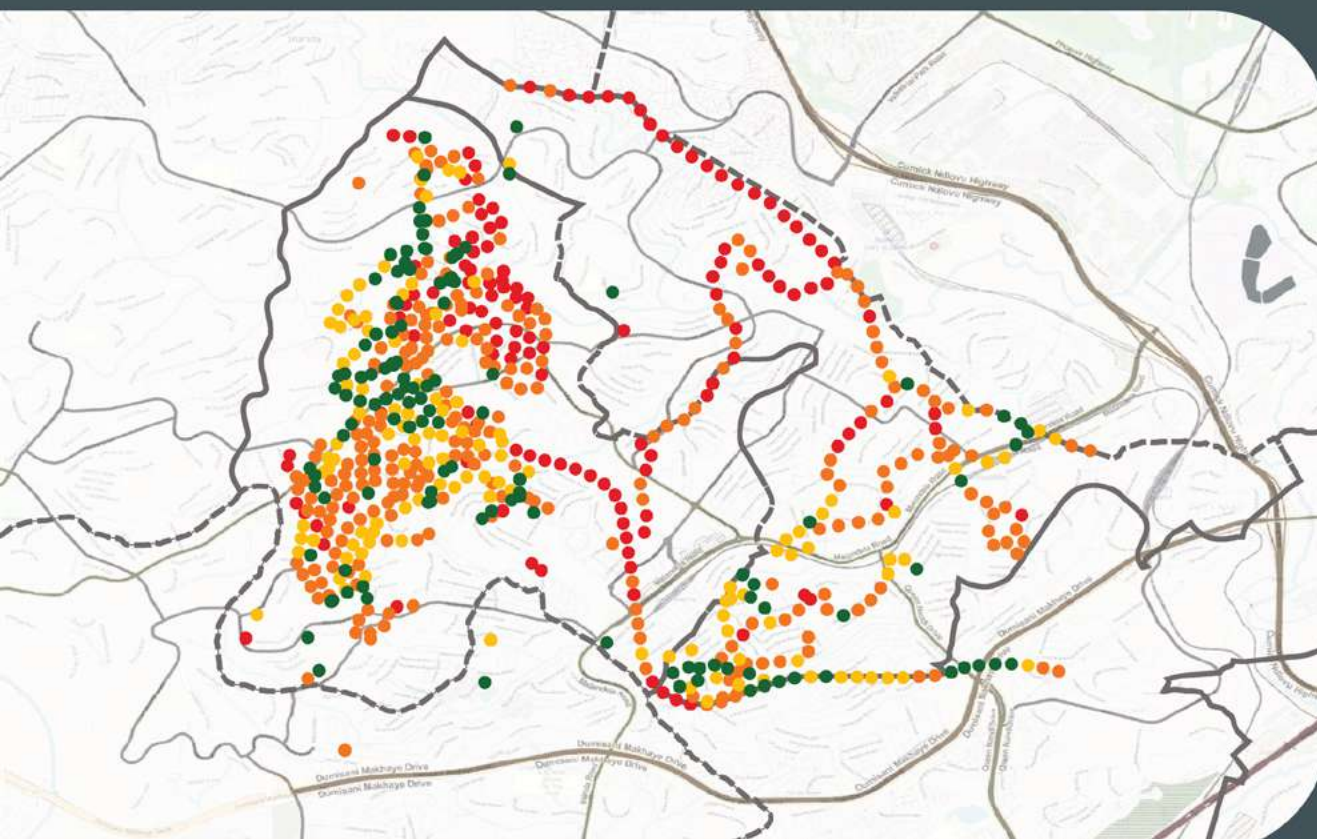
Nyuswa



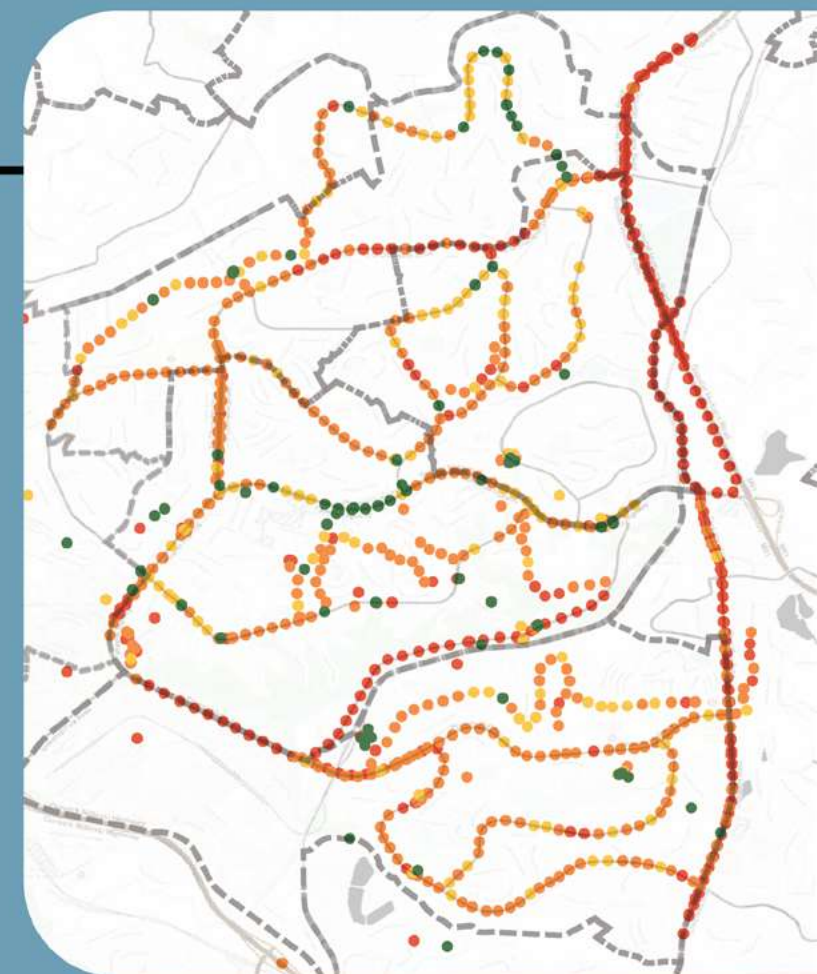
Hillcrest



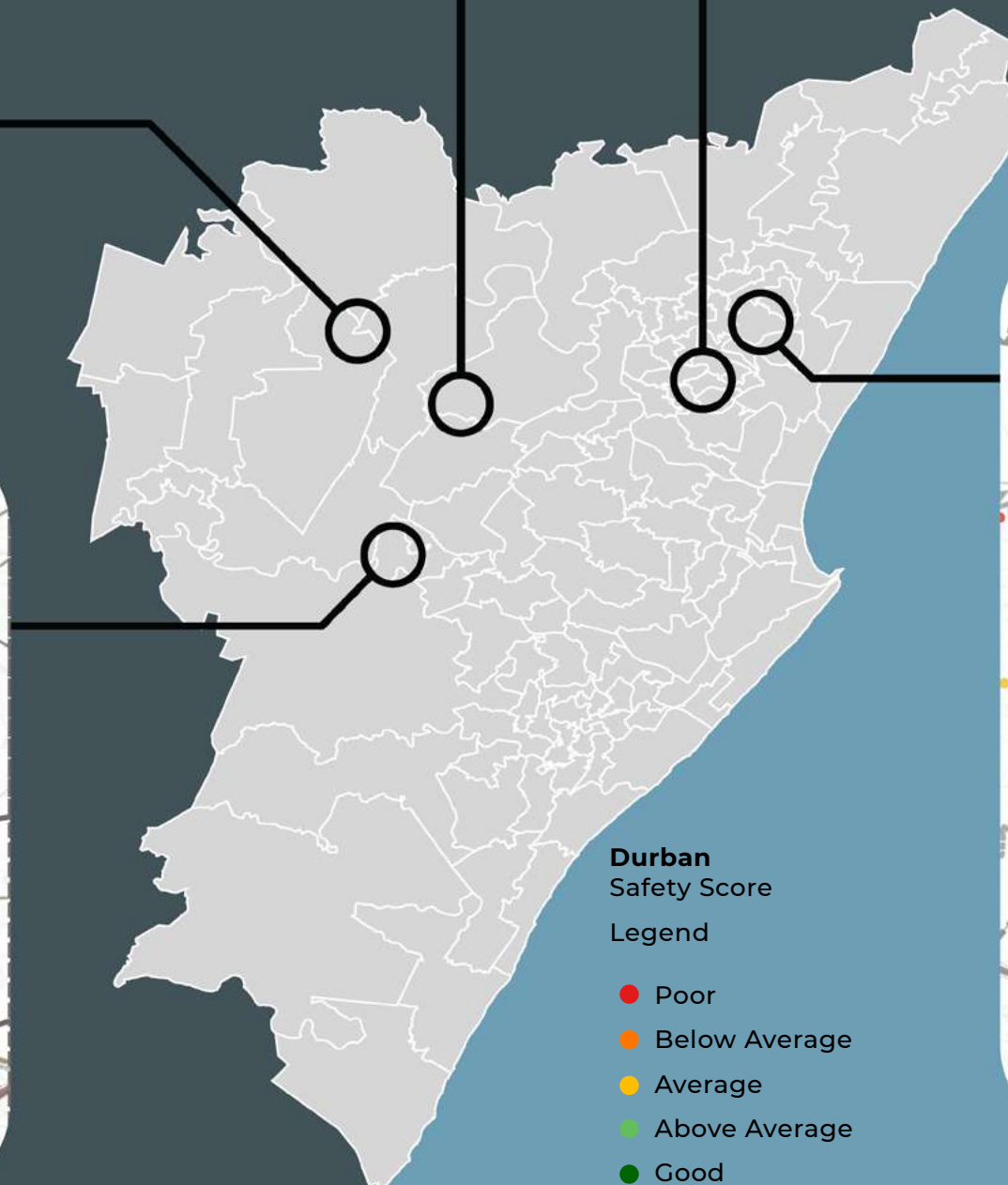
KwaMashu



KwaNdengezi



Phoenix

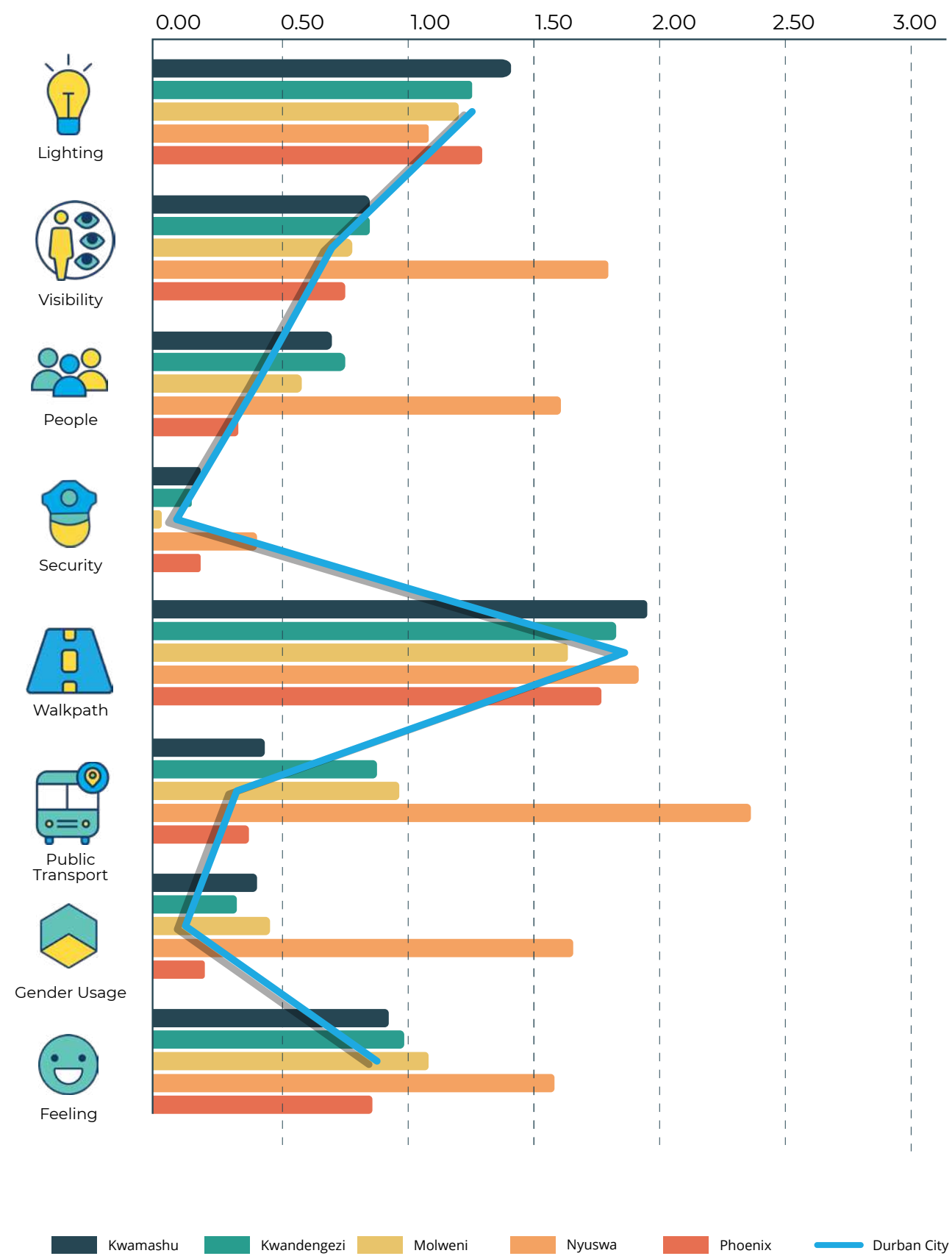


Durban
Safety Score
Legend

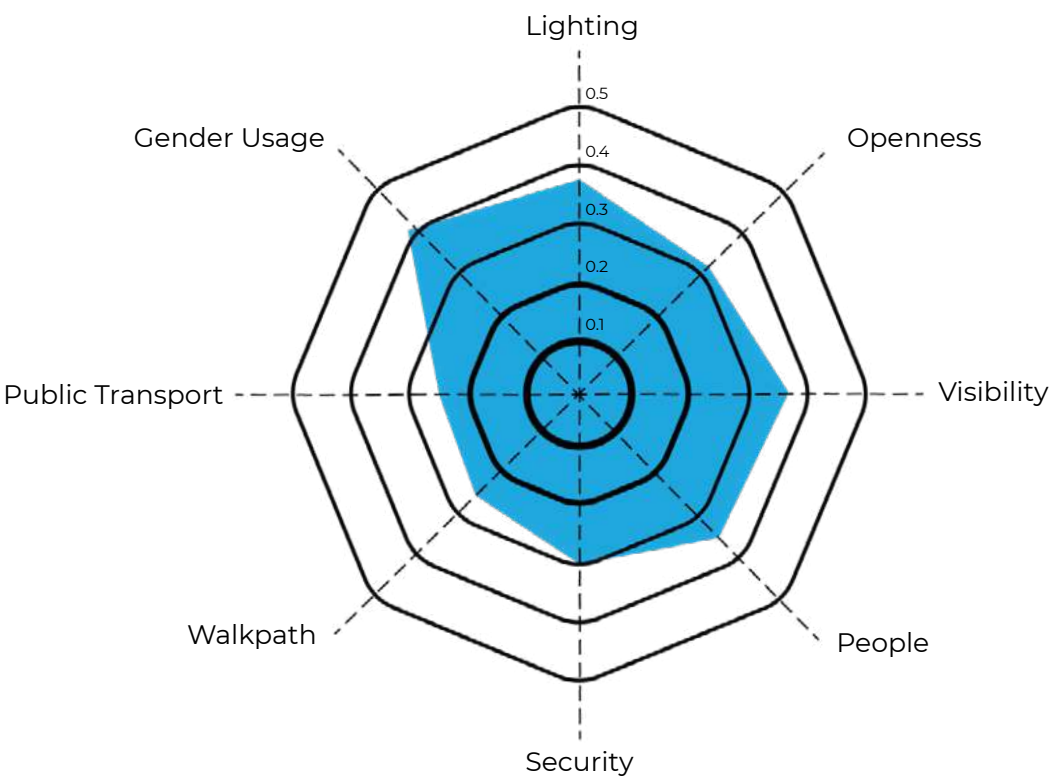
- Poor
- Below Average
- Average
- Above Average
- Good

Map 8: Areas audited
using My Safetipin App

Average Parameter Ratings (at community level as compared to Durban City)

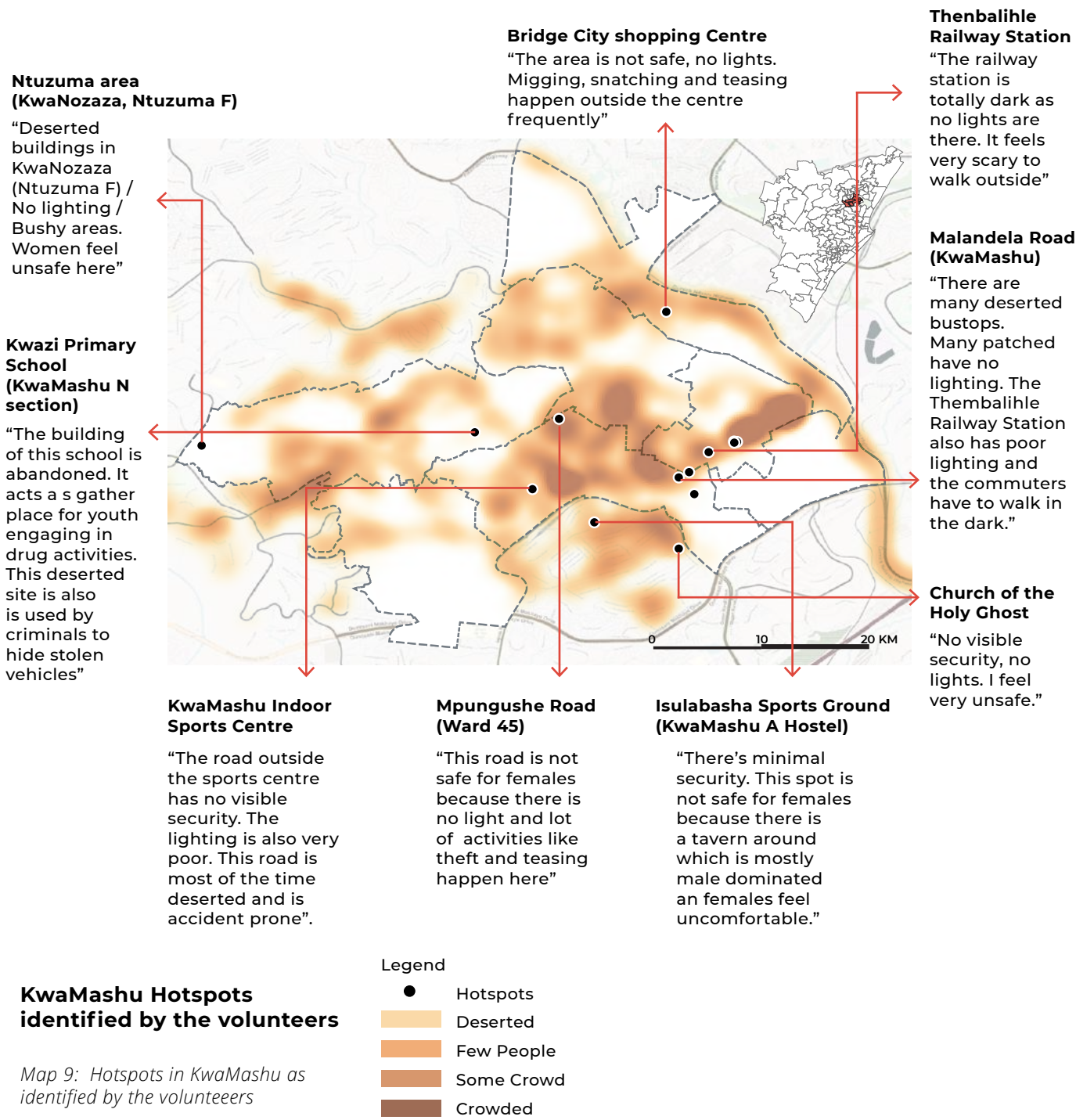


Feeling parameter reflects the perception of safety at a place. As all parameters do not have an equal impact on the perception of safety, it's useful to know how an improvement in each parameter will impact the overall feeling at a place. The radial graph shows the correlation of the Feeling parameter with all the other parameters based on the audits done by the volunteers. It could be seen that Gender Usage (presence of women and children), Lighting and Visibility (active streets) parameters have the maximum impact on the feeling of safety. Improvements on actionable parameters like Lighting, Visibility and Walkpath could encourage more women to use the public space, thereby improving Gender Usage and People parameters. This indicates the inter-dependency of the parameters in improving the overall safety score of a place.



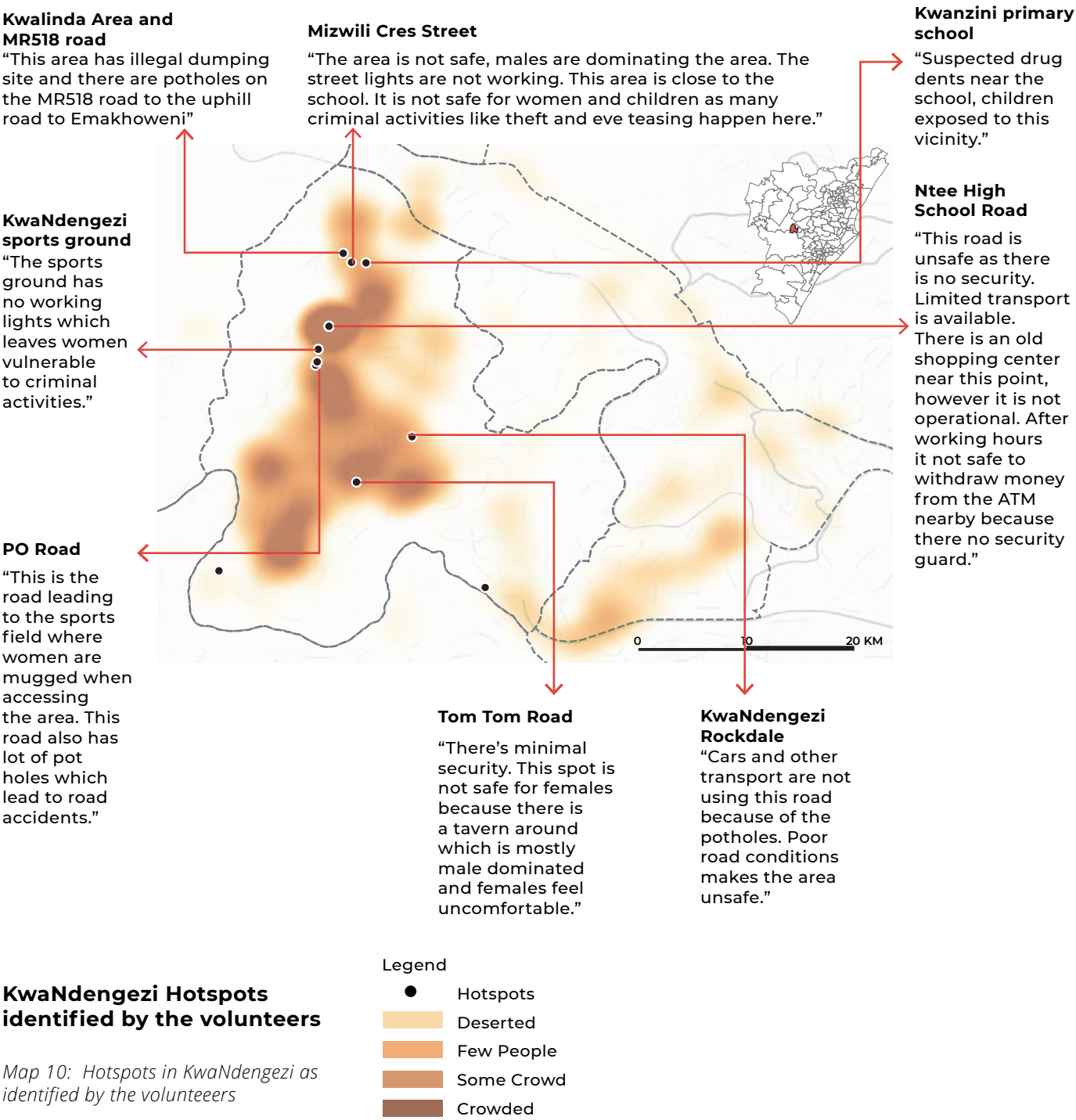
KwaMashu

KwaMashu is located in north of Durban where volunteers from Gugu Dlamini Foundation (GDF) conducted 200+ audits using My Safetipin app and another 1500+ audits were generated from the visual analysis of the images collected through Safetipin Nite. People parameter ratings were overlaid on the hotspots as identified by the volunteers in Map 9. Hotspots are the locations where auditors have reported feeling unsafe and added comments highlighting the issues.





KwaNdengezi

KwaNdengezi is part of ward 12 under eThekweni Municipality where volunteers from Ethembeni Crisis Care Centre (ECCC) conducted 160+ audits using My Safetipin app and another 550+ audits were generated from the visual analysis of the images collected through Safetipin Nite. People parameter ratings were overlaid on the hotspots as identified by the volunteers in Map 10. Hotspots are the locations where auditors have reported feeling unsafe and added comments highlighting the issues.



Overall Findings and Recommendations

	Lighting	Security	Visibility	Walkpath
<div><div>KwaMashu</div></div>	<p>31 audit points were identified with no streetlights.</p> <p>639 audit points were identified as non-functional streetlights.</p>	<p>32 Zenda Rd, 63 Umthala Cir</p> <p>26 Inhlendla Ave, 6 Uzinhla Walk</p> <p>Dassenhoek RD were listed as unsafe areas</p>	<p>Not many shops or residences overlook the streets, making it deserted.</p> <p>Very few women and children in sight after dark in KwaMashu.</p>	<p>375 audit points were identified with no pavement.</p> <p>181 audit points were identified with unpaved paths.</p> <p>66 audit points were identified with broken pavements.</p>
<div><div>KwaNdengezi</div></div>	<p>33 audit points were identified with no streetlights.</p> <p>318 audit points were identified with non-functional streetlights.</p>	<p>Mizwili Cres Street, KwaNdengezi Sports Ground,</p> <p>Ntee High School Road</p>	<p>Open grounds with no built form results in low visibility on the streets.</p>	<p>244 audit points were identified with no pavement.</p> <p>71 audit points were identified with unpaved paths.</p> <p>13 audit points were identified with broken pavements.</p>
<div><div>Action Points</div></div>	<p>Install new streetlights at these points.</p> <p>Repair and maintain the existing non-operational streetlights.</p>	<p>Police patrolling could be done at multiple times during the day around the identified hotspots.</p> <p>Organise community awareness programmes to increase awareness on legal and other aid provided by SAPS or the municipality. Provide helpdesks at popular public spaces and public transport hubs with female staff.</p>	<p>Activities to promote women’s participation in public spaces should be organised.</p> <p>Allocating zones for street vendors/informal shopping at popular public spaces could improve visibility on the streets.</p>	<p>Provide dedicated space for walking in these areas to make it pedestrian-friendly. Pedestrians, especially elderly, differently abled, and other vulnerable groups need at-grade walking surfaces and universal accessibility elements to access the pavements.</p> <p>The available space for walking should be paved with paver blocks to provide smooth surface for walking.</p> <p>Repair the existing pavement to make it accessible for all user groups. This includes pavements with missing, broken or disjointed paving blocks, uneven manhole covers and other fixed objects that pose as hazards for pedestrians.</p>

WAY FORWARD

Way Forward

Urban Safety is a hot topic in South Africa. Add to it the unsafety of women in our cities and it's raw and often angry; this is a complex and difficult problem with no easy solutions. Activists, researchers, NGOs, CBOs and government officials have all invested years of time, resources and energy into making women safer, yet the problem persists. Unsafety of women in cities is often reported in terms of the incidence of crime and violence, and seen as a linear relationship between offenders, victims and the police. Yet there is a more nuanced but equally important relationship to be drawn, between city mandates and perceptions and realities of women's safety. Many women suffer abuse and even violence that is never captured by the police, nor counted as crime. Women also perceive themselves to be unsafe, even when the threat is not realized. The relationship between unsafety and women manifests as an impediment to wellbeing, often restricting mobility and reducing opportunities for education, work and leisure. Women's lives are constrained where there are long journeys to be made, where there is inadequate and unsafe sanitation, where they must travel alone or in the dark, where the environment is poorly managed, or ill-lit.

This set of studies has shown that women face insecurity, violence and fear on a regular basis while navigating the city. It also reveals that there are many infrastructural and service gaps that heighten the feeling of insecurity. The Sustainable Development Goals as well as the New Urban Agenda have highlighted these aspects of the urban fabric with emphasis on eliminating violence against women and girls, gender responsive planning, safe and responsive mobility for all among the many targets.

South African cities typically have very limited mandates and powers to intervene in and respond to criminal acts in the way that the police must. Some have Municipal or Metro Police, but their functions and responsibilities are focused more on enforcement of by-laws and some basic crime prevention than on dealing with or investigating serious crimes. Relationships between Metro Police and the South African Police Service (SAPS) vary from city to city; in some instances, they work relatively well together, while in others they are more often at loggerheads. What Cities have that SAPS do not, is however a much wider range of mandates and thus tools that, while not necessarily obviously connected to safety, contribute significantly to how safe or unsafe the city is.

To ensure safe and inclusive access to public spaces for women, a slew of interventions including improved infrastructure, policy-level changes, responsive services and citizen engagement are key. Enhancing women's access to public spaces and public services will help women participate in public life, access educational and employment opportunities and eventually increase their wellbeing.

At the basic level, providing uniform lighting on the streets and improving walkability are essential to women's perception of safety. To enhance their mobility, taxi ranks must be upgraded by providing amenities including clean public toilets, proper shelter and waiting areas, clean and adequately spaces footpaths, dedicated vendor zones etc. Critical information on taxi routes and schedules should also be provided at the taxi ranks. Additionally, signage and advertisements warning against sexual harassment and other non-social activities should be displayed inside the taxis and at the taxi ranks.

Increasing awareness and capacity of key actors in the urban space are needed for sustainable change. City-wide communication campaigns on women's safety can play an important role. Two existing campaigns working on promoting women's equality in the city are #SafeTaxisNow by SCI and other civil society organisations and the Safe Ride campaign by Sonke Gender Justice. These campaigns are aimed engaging the South African taxi industry (taxi associations, drivers, owners, queue marshals) and key government departments to promote respectful and non-violent behaviour towards customers, prevent sexual and gender-based violence and harassment, and promote gender equality and safety of women and children within the taxi industry.⁶

Alongside, institutional reforms like regular gender sensitization training of taxi conductors, drivers, and rank managers need to be mainstreamed. Performance and behaviour-based incentives for drivers, conductors and taxi rank's staff could be provided by the taxi association. Additionally, it is imperative to increase the share of women employees at taxi ranks and within the transport sector as a whole.

Gender responsive policies, infrastructure and services will go a long way towards enhancing women equal participation and wellbeing. The engagement of the eThekweni municipality with this study is a positive step which can lead to mainstreaming of these gender concerns in their policies and programs. This project demonstrates the value of working together with cities in a transversal and inclusive way, so that discoveries about what safety means to women happen in synergy with those who have the mandates and tools to respond, to repair infrastructure and improve the urban fabric so that women both perceive and experience improved safety.

6 For more information <https://genderjustice.org.za/photo-gallery/launch-safe-ride-campaign/>

ANNEXURE

Annex - 1

Rubric for Rating Parameters on My Safetipin App

Rating	0	1	2	3
Lighting	None	Little	Enough	Bright
	No streetlight or other light source.	Can see lights but the area is dimly lit.	Light is enough for clear vision.	Whole area is brightly lit.
Openess	Not Open	Partly Open	Mostly Open	Completely Open
	Many blind corners and no clear sightline.	Able to see a little ahead and around.	Able to see in most directions.	Can see clearly in all directions.
Visibility	No Eyes	Few Eyes	More Eyes	Highly Visible
	No window/ building entrance/vendor overlooking this point.	Less than 5 windows or entrances overlooking the point.	Less than 10 window or entrances overlooking this point.	More than 10 windows or entrances overlooking this point.
People	Deserted	Few People	Some Crowd	Crowded
	No one in sight.	1 or 2 people visible.	3-10 people visible.	More than 10 people visible/Many people within touching distance.
Security	None	Minimal	Moderate	High
	No guards or police visible in surrounding area.	Some private security visible in surrounding area but not nearby.	Private security within hailing distance.	Police / reliable security within hailing distance.
Walk path	None	Poor	Fair	Good
	No walking path available.	Path exists but in very bad condition.	Can walk but not run.	Easy to walk fast or run.
Public Transport	Unavailable	Distant	Nearby	Very Close
	No train/metro/bus stop/local mode within 10 minutes walk.	Train/metro/bus stop/local mode between 5-10 minutes walk.	Train/metro/bus stop/local mode between 2-5 minutes walk.	Train/metro/bus stop/local mode within 2 minutes walk.
Gender Usage	Not Diverse	Somewhat Diverse	Fairly Diverse	Diverse
	No one in sight, or only men.	Mostly men, very few women or children.	Some women and children.	Balance of all genders or more women and children.
Feeling	Frightening	Uncomfortable	Acceptable	Comfortable
	Will never venture here without sufficient escort	Will avoid this place whenever possible	Feel safe enough, but will be careful	Feel safe even after dark

Annex - 2

List of Parameters and sub-parameters analysed using image dataset

Lighting	Visibility	Walkpath	Transport
No Streetlight	One side Boundary wall	No Walkpath	Metro/Subway
Off Streetlight	Both side Boundary wall	Broken Pavement	Bus Stop
Leaves cover Streetlight	Unused/ Unbuilt Land	Unpaved Walkpath	Taxi
Other cover Streetlight	Street Vendors	Vehicle blocking	Cycle/Bike Stand
One side Streetlight	Kiosks/Stalls	Vendor blocking	Waterways
	Shops/ Restaurants	Houses extension	Railway Station
	Residential Building	Trees blocking	Bus Terminal
		Other blocking	
		Shared Road	
		On-street Parking	
		Built Pavement	
		No Pavement	

Annex - 3

Taxi Rank Assessment Form



Durban-Taxi Rank

General

1- Name of the Taxi rank *

Your Answer

2- Which Taxi Association does it comes *

Your Answer

3- No. of Entry points for this taxi rank. Mention if they are open or locked. *

Your Answer

4- How many taxis operate from this Taxi Rank *

1-50

50-100

More than 100

5- How is the taxi rank identified? *

Designated Space/Compound for Taxi Rank

Signage

Shelter for commuters

Marking on the road

Onstreet Parking of Taxis(Informal stops)

Other

Upload

6- Operating hours of the taxi rank *

Your Answer

7- Which of the following facilities are available at the taxi rank? *

Public Toilet

Drinking Water

Benches

Dustbin

ATM

CCTV Camera

Helpline Number Displayed on Board/Signage

Telephone for Emergency Calling

None of the above

Other

Upload

8- Select 5 taxi on different routes. What all Information is available for a taxi? *

Taxi Number

Route Number/Route Name

Driver's Details(Name /Photograph/Registration Details)

Helpline Numner Displayed in Taxi

Panic Button

None of the Above

Upload

9- No. of people at the taxi rank *

0

Less than 100

More than 100

Crowded (People brushing shoulders with each other)

Upload

11- Any other information about people at the Taxi Rank

Infrastructure

12- Is there any unpaved area within the taxi rank *

Yes

No

Upload

13- Which of the following facilities are available to access the waiting areas? *

Ramp

Curb Cut at the Crossing

Taxtile Tiles

Hand rails

None of the above

Upload

14- What do you see around the waiting areas of the Taxi Rank? *

Temporary Shelter

Temporary Shops

Street Vendors

Public Plaza or Public Space

Garbage Dumping in open space

Vacant Land

Other

Upload

15- Any other comments about the waiting area

16- Rate the lighting in the eving inside the Taxi Rank *

None(No streetlight or other light)

Little(Can see lights but low visibility)

Enough (Lighting is enough for clear visibility)

Bright(Full area is brightly Lit)

Upload

17- Source of lighting at the waiting area *

Light Posts

Compund Building

Taxi Headlights

Shops

Houses

Vendors

Advertisement Banners

Other

Upload

18- Any other comments on lighting at the Taxi Rank

19- Which of the following is present in terms of security at the taxi rank? *

None

Police Patrol Van

Police Personnel

Private Guard

Taxi Association Guard

Other

Upload

20- Any other comments on the security at the taxi rank

Women's Safety

21- What are the issues faced by women at the taxi rank? *

Cat Calling

Inappropriate touching

Molestation (Groping)

Stalking

Threatened using weapons

Theft

Overcrowding

Other

Upload

22- Do you see any of the following activities at this taxi rank? *

Alcohol sale

Drug sale

Drivers carrying weapons

Conductors carrying weapons

None of the above

Other

Upload

23- Are there any women staff? *

Yes

No

Upload

24- If yes, please state whether conductors/driver/admin staff/cleaner and approximately how many. Mention the kind of issues they faced working at the taxi rank, if any.

25- How safe do you feel at the taxi rank? *

Fightened

Uncomfortable

Acceptable

Comfortable

Other

26- Any other comments on the issue of women's safety at the taxi rank

Nearby Public Transport

27- Is there a train station or bus stop within 15 mins (500 meters) walking distance? *

Yes

No

Upload

28- Which of the following is present on the path from the train station/bus stop to the taxi rank? *

Shops

Houses

Temporary Shops

Vendors

Vacant Land

Upload

29- Are there any blockings on the path from the train station/bus stop till the taxi rank? *

Yes

No

Upload

30- If yes, then what all elements are blocking the pedestrian path? *

Upload

31- Any other comments on the path from the train station/ bus stop to the taxi rank *

Upload

* - Required Field

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