



SAFETY AUDIT REPORT DHAKA 2015



Dhaka City

Dhaka is the capital of Bangladesh and the principal city of Dhaka District and Dhaka Division. Dhaka is one of world's most populated cities, which in combination with localities forming the wider metropolitan area, is home to over 15 million as of 2013. The population is growing by an estimated 4.2% per year, one of the highest rates amongst the Asian cities. According to the Far Eastern Economic Review, Dhaka will be home to 25 million people by the end of 2025.

Dhaka is located in central Bangladesh on the eastern banks of the Buriganga River. The city lies on the lower reaches of the Ganges Delta and covers a total area of 300 square kilometres (120 sq mi).

The city's name was Jahangir Nagar (City of Jahangir) in the 17th century. It was the Mughal capital of Bengal for 75 years; and flourished in trade and culture as a cosmopolitan commercial capital and the hub of the worldwide muslin and silk trade. In 1793, Dhaka was ceded to the British East India Company. British Dacca developed in the late 19th and early 20th centuries, with the establishment of railways, jute trading and various educational and cultural institutions. It was the capital of British Eastern Bengal and Assam between 1905 and 1912. After the Partition of British India in 1947, Dhaka became the administrative capital of East Pakistan. The post-independence period witnessed rapid growth as Dhaka attracted migrant workers from across rural Bangladesh. In the 1990s and 2000s, Dhaka saw improved economic growth and the emergence of affluent business districts and satellite towns.

Modern Dhaka is one of Bangladesh's twin economic centers, along with Chittagong, to which it is connected by the Grand Trunk Road and the Bangladesh Railway. The city was the 2012 ISESCO Asian Capital of Culture. It is served by Shahjalal International Airport. For much of recent history, Dhaka was characterized by roadside markets and small shops that sold a wide variety of goods. Recent years have seen the widespread construction of shopping malls, multiplexes, hotels and restaurants attracting Dhaka's growing middle class and wealthy residents. As the most densely populated and one of the fastest growing megacities in the world, it faces many challenges common to a developing world metropolis, including traffic congestion, crime, urban pollution and poverty.

Methodology

Safetipin is a map-based mobile phone application which works to make communities and cities safer by providing safety-related information collected by users and by trained auditors.

The safety audit is a methodology that has been used in many countries around the world to measure certain parameters that have been in some correlated with feelings of safety. For the Safetipin rubric, safety checklists from across many countries were reviewed and the final product went through the perusal of an International advisory committee.

At the core of the app is the Safety Audit. It consists of a set of 9 parameters that together contribute to the perception of safety. Each audit results in a pin on the specific location where the audit was performed and also records the time and date.

Recording an Audit

The process of conducting an audit is simple. Each of the nine parameters shows four options to choose from. Once all parameters fields are filled, the audit can be uploaded.

The nine parameters each have four options as which a user can choose. The entire rubric is given below.

Other Record Elements

In addition to audits, Safetipin presently allows three other types of information to be recorded and displayed in much the same way.

- Harassment. To record, view and comment on any occurrence of Harassment. Recording of Harassment can also be done later through an online interface, since recording of Harassment on the spot may not always be feasible.
- Hazards. To record, view and comments on problems with Infrastructure.
- Places. There are four categories of places being recorded. Transport, Medical, Police and Shops, since all of these contribute to safety.

Calculating Safetipin Score

Based on the score given to each safety audit parameter on the scale of 0-3, the safety audit score is calculated. This score can be seen on the individual audit screen and is also the deciding factor of the color of the audit pin. If the score is less 3.5, the pin color for the safety audit done appears red. If the score the between 3.5 and 7, the pin color for the safety audits appears to be amber and any audit that score above 7 appears in green color on the map.

Analytic Engine for safety audits

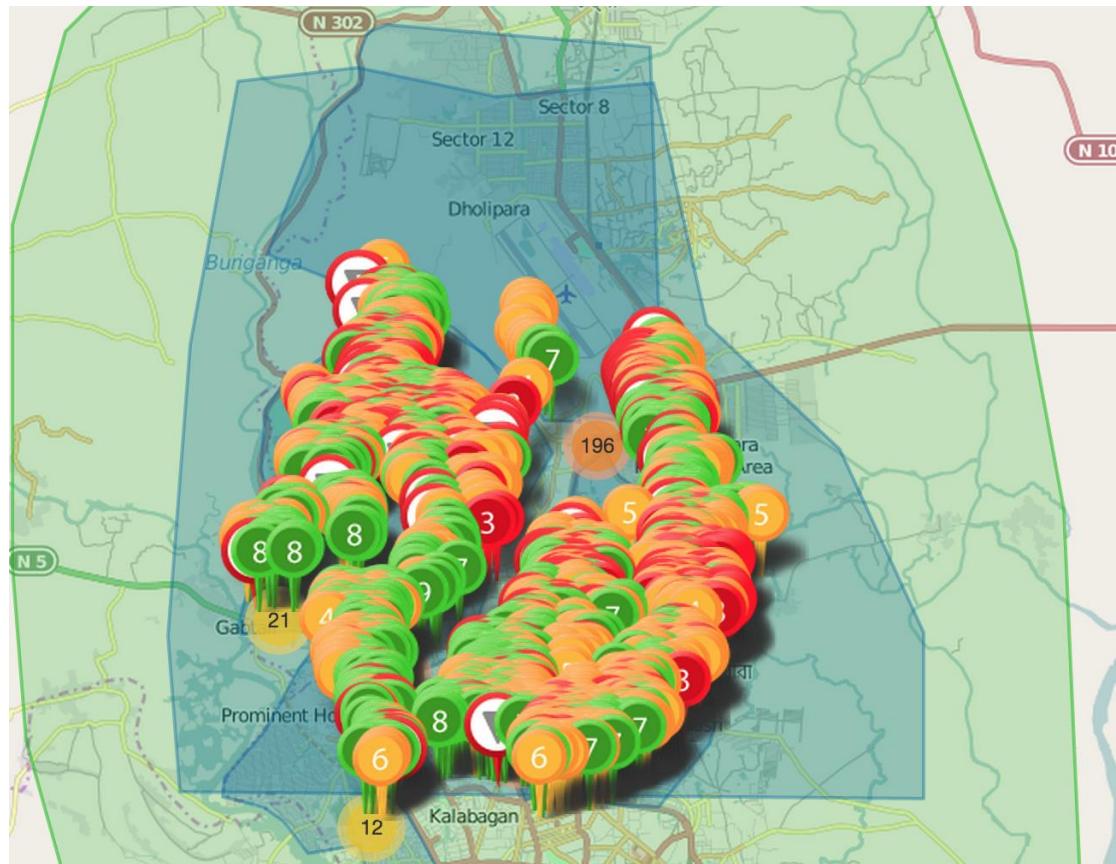
Safetipin has created a platform for data analysis called the Analytics Engine. This is an online engine that allows the Safetipin team, Civil Society Organizations, Researchers, etc. to analyze the data being collected from various cities across the world.

The engine automatically uploads all the safety information pins, including safety audit pins, hazard pins, harassment pins, feelings pins and places. This upload is instant and helps in looking at the data collected in much simpler way. The engine provides various filters like dates, day time of the audit, age-wise filters, gender filters etc and has the options of automatic generation of basic graphs and analysis. It also generates a detailed excel file for further analyses of the data collected. For this, a session was conducted for the MJF team on how to use the Analytics Engine. The team has analyzed the data from the 1986 pins collected during the data collection. All the diagrams, charts and photographs used in the report have been created using the Safetipin's Analytics Engine.

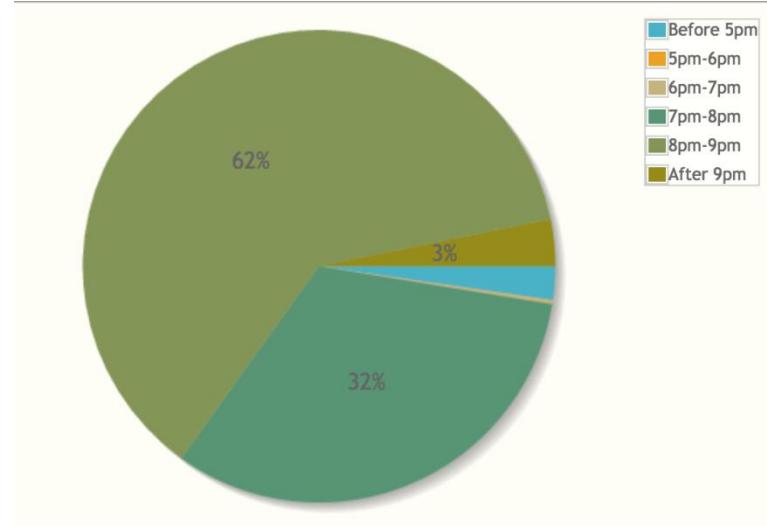
Findings from Safety Audits in Dhaka North

In Dhaka north, safety audits were carried in the months of June and July 2015 and major parts of Dhaka north were covered. The focus was to cover residential spaces, university area, popular markets, main roads and busiest routes and most used public transport stations. The idea was to look at public spaces of different nature and draw the level safety in Dhaka north.

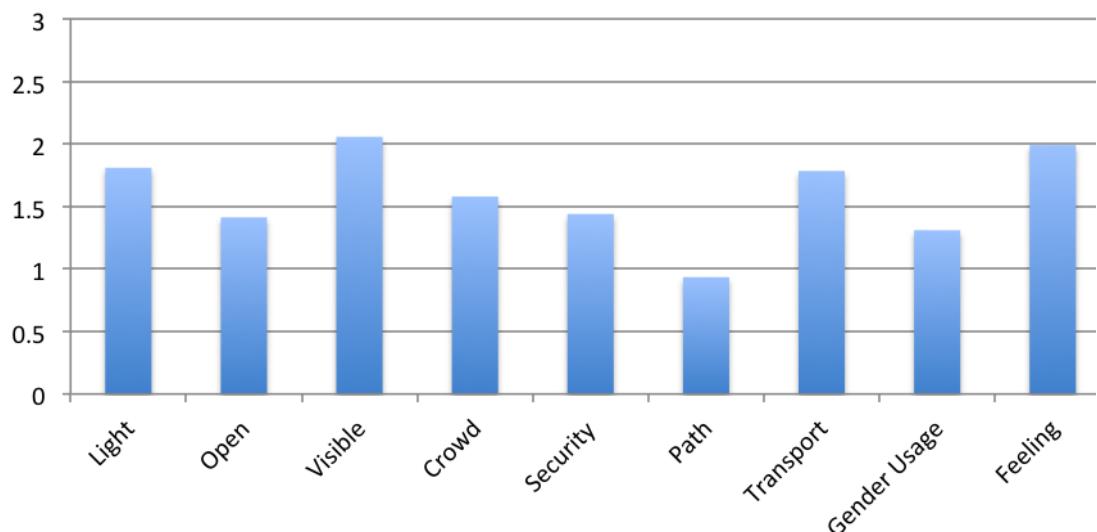
At present, there are about 2000 Safetipin audits in Dhaka north, collected mostly after dark for better understanding of safety and feeling of safety in the city. Map 1 below shows safety information pins collected in Dhaka north.



The safety audits were conducted during different periods of the day. As shown in Graph 1 below, the majority of safety audits were conducted between 7-9pm. This is the times when streetlights are turned on. This is also the prime time when people use the streets and public spaces for various purposes such as returning home, going to the market, taking a stroll in the parks etc. At this time, it is important to measure parameters and feelings of safety.



Graph 1: Auditing time of the day

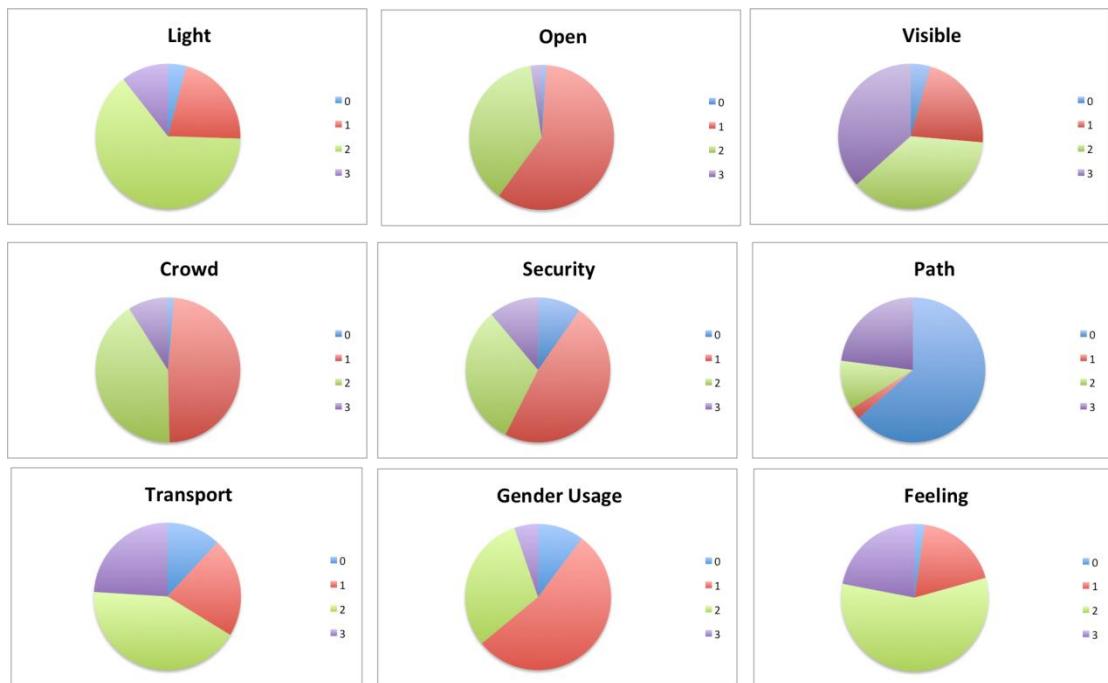


Graph 2: Average score of safety audit parameters

As Graph 2 suggests most of the audits parameters score averagely on a scale of 0-3, and walk path and gender diversity score the lowest. The findings suggest that the walk path in the city is either unavailable or poorly built. It was also recorded that women and children are seen less in public spaces during the after dark hours. Public spaces are not open enough for comfortable passage and lack visible public and private security. Although light scores above average, not all areas are uniformly well lit. The only parameter that scored above average is

visibility or 'eyes on the street', that is windows and entrances from where people can see the street from inside the houses or shops.

From Graph 3 below, we can see the breakup of all the audit parameters to get better understanding of public spaces in the city. The breakup of these safety audit parameters gives a clearer understanding of Dhaka North. For example, the pie chart of Light shows that most part of the city has enough lighting and about a quarter of the city has no or poor lighting in public spaces. Similarly, the pie chart of Gender Usage shows that only a little more quarter of the city has women and children in public spaces and most part of city lacks gender diversity in the crowd. The pie chart of walk path narrates a disturbing image of Dhaka north where more than half of the city lack walk path in public spaces.



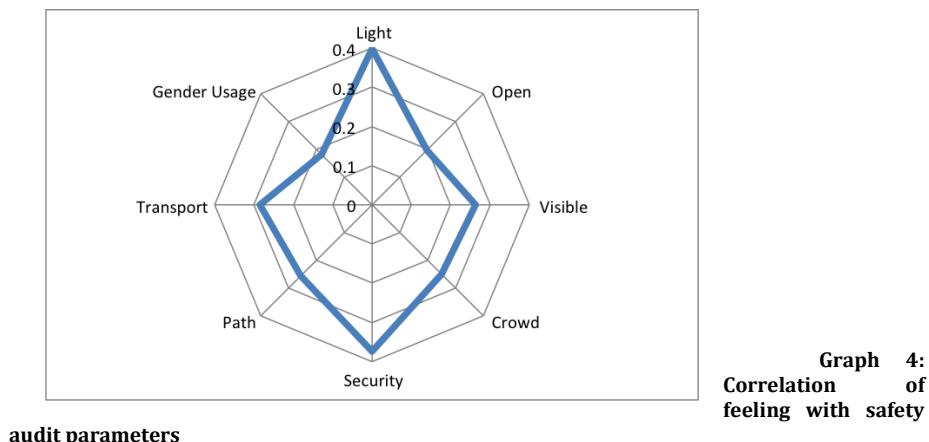
Graph 3: Break up of audit parameters

Feeling of Safety

Feeling of safety of an area differs with various factors like time, number of people and familiarity with the area. To identify what factors make women and children feel safer in public spaces, each safety audit parameter was correlated with feeling of safety given by the auditors.

As shown in the graph below, we found that well lit streets and visible public and private security have the highest impact on the feeling of safety in public spaces. This is followed four other factors, which have high impact - availability of public transport, eyes on the street, good walk path and some crowd in the area. Thus, people find places safer when there is easy access to public transport, there are other people, enough and well-constructed spaces to walk and where there are people who can see the streets. It is therefore important to not only focus on infrastructure, but also designing and planning streets for wider usage. For greater visibility (eyes on the street), it is also important to not have high walls

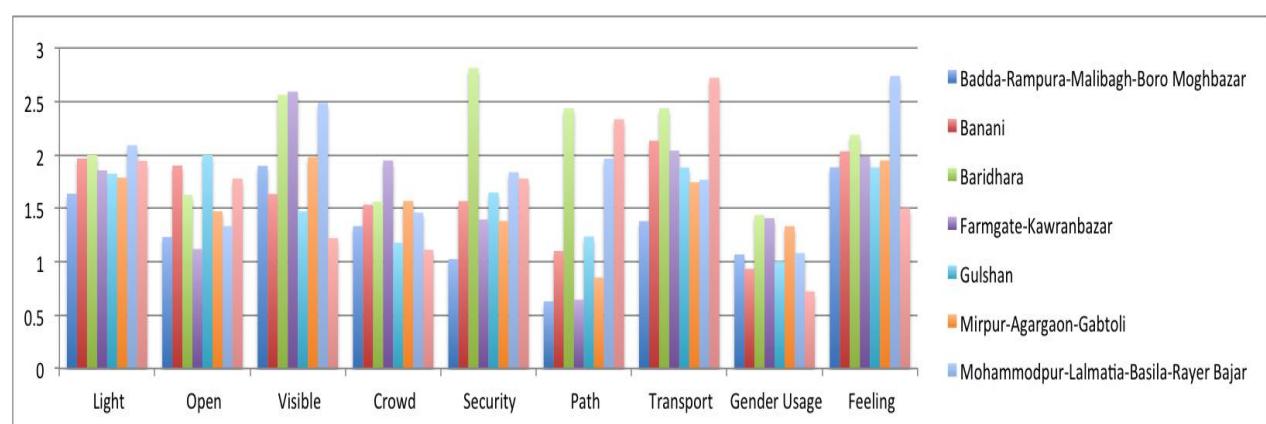
and setbacks, which isolates people who uses the streets and prevent natural surveillance.



DHAKA NORTH CITY

For analysis, we divided Dhaka North in 8 areas –

- Badda-Rampura-Malibagh-Boro Moghbazar
- Banani
- Baridhara
- Farmgate-Kawranbazar
- Gulshan
- Mirpur-Agargaon-Gabtoli
- Mohammadpur-Lalmatia-Basila-Rayer Bajar
- Tejgaon-Mohakhali

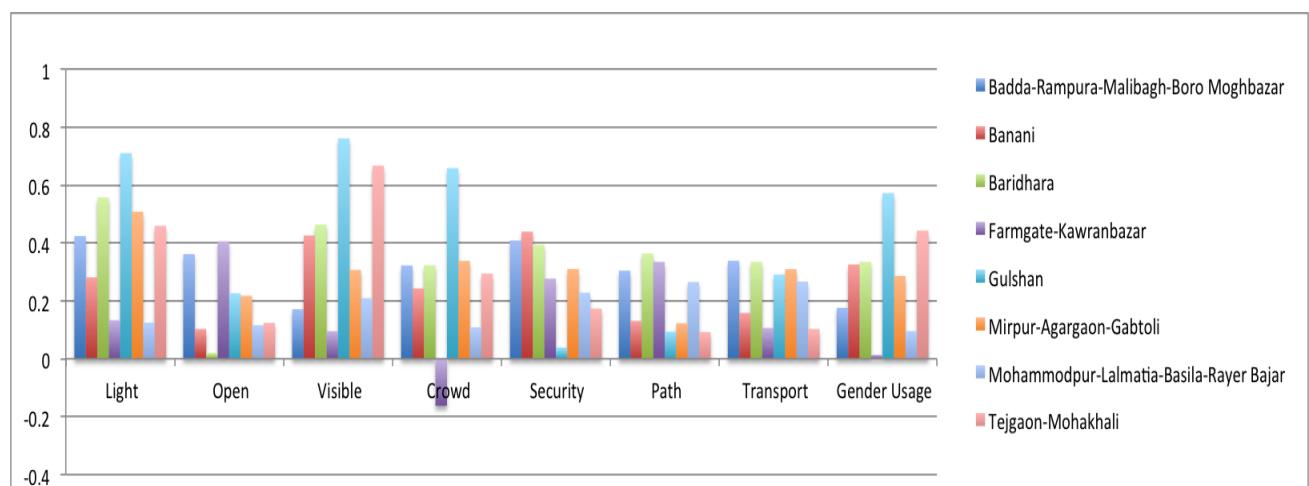


Graph 5: Average score of safety audit parameters across the 8 areas in Dhaka North

Graph 5 shows that on a scale of 0-3, Gender Usage in public spaces across the 8 identified areas is below average while Crowd and Openness scores between below average and average. Walk Path on the other hand is either poor in Dhaka North or above average. The parameters of Light and Public Transport are consistently above average, except in Badda-Rampur area, where it scores

averagely. Visible public and private Security is largely average across the identified area with an exception of Baridhara, where it is above average.

Based on these average score, Barindhara scores as the safest of all the 8 areas identified in Dhaka North, followed by Mohammadpur-Lalmatia-Basila-Rayer Bajar, Banani and Tejgaon-Mohakhali. The unsafe area according to the safety audits carried out is Badda-Rampura-Malibagh-Boro Moghbazar. With an exception of Light and Visibility, all the other parameters in Badda are below average and poor.

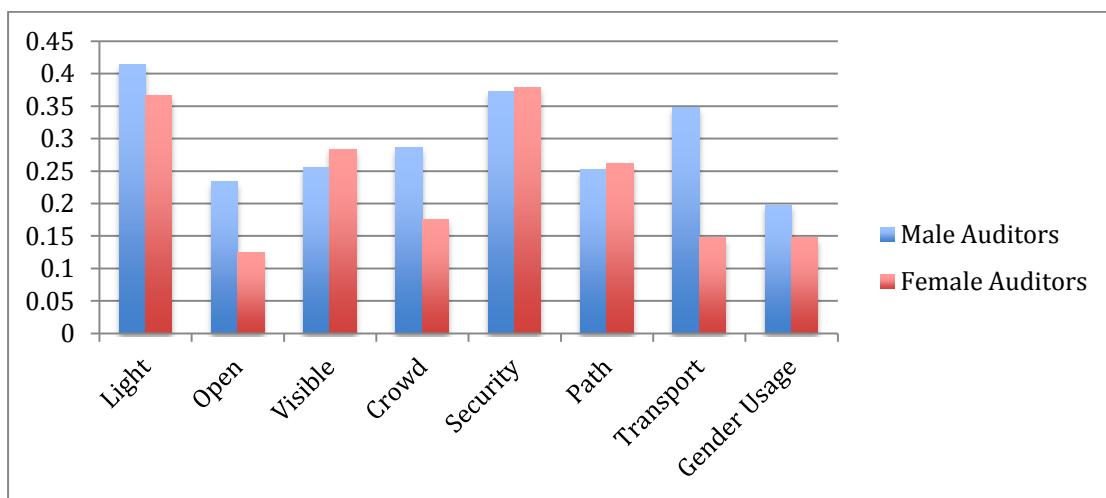
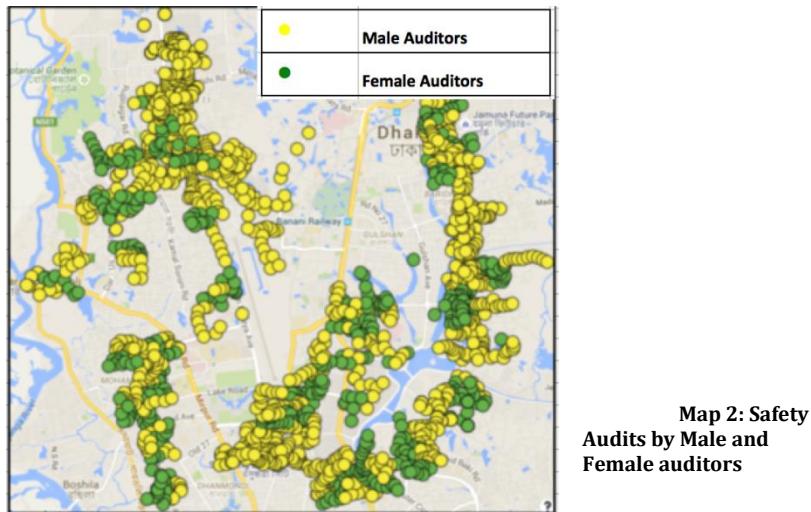


Graph 6: Correlation of feeling of safety with safety audit parameters across the 8 areas in Dhaka North

Graph 6 above shows the correlation of feeling of safety with other safety audit parameters. Overall, parameters of light and visibility affect the feeling of safety of women and children the most. Well-lit streets with eyes on the street makes women feel safer and comfortable in public spaces. Security, gender usage and crowd affecting the feeling of safety in public areas follow this. The negative relation with crowd in Farmgate-Kawranbazar area could be explained by discomfort felt by women and children in highly crowded areas. Harassment of multiple kinds is observed to be relatively easy and more in highly crowded areas.

Comparing Graph 5 and 6, Light, Security, Gender Usage and Visibility could be prioritized in terms of improvement in Dhaka north for relatively bigger and immediate change in safety of women and children.

This analysis has been further broken down into impact of audit parameters on the feeling of safety in each of the selected areas, which give similar analysis. We further analyzed the correlation of feeling with audit parameters scored by male and female auditors to document the change in perceptions due to gender.



Graph 7: Correlation of safety audit parameters with feeling of safety scored by male and female auditors

Graph 7 shows the gender breakup of the overall analyses of correlation of feeling with safety audit parameters. Light, visible public and private security, and eyes on the street remain the most important factors that contribute to feeling safe in public space. For male auditors the availability of public transport appeared to have more correlation to the feeling of safety. Gender diversity in the crowd present on the street is equally important for both male and female auditors.

Key Findings

Lack of visible policing/ security

At the time of audits, on several routes the level of police presence varied greatly and PCR vans were not found to be patrolling the area. Even private security was minimal during the audit walk in Dhaka north. It is important for many people to have visible security in the nearby area, especially during the dark hours, to feel comfortable and safe.

Lack of crowd

It was seen that the crowd grew thinner as one walked out of the market spaces and main roads. Towards the by lanes and routes connecting transportation spots/ station with residential areas, there was less or no crowd on the streets. This could be a result of lack in safer infrastructure in general but is important for many women and girls as they return from schools and offices.

Lack of safety and gender sensitive public infrastructure

Street Lights in city varied and some areas were found to be completely dark. One of the reasons for this is that many light poles were covered by trees or the light bulbs were broken/ missing from the pole. It was also seen that many areas where light poles were not functioning were partially lit because of the light coming from inside the houses and shops or the street hoardings. Women also reported that lack of walk path discouraged them to walk in public spaces, especially in the night. It causes discomfort and is an obstruction in mobility for people, especially for women and children.

Recommendations

- Ensure that public spaces are planned for gender diverse usage**

Our audits show that the single biggest factor that would make women feel safer is the presence of other women in public spaces. In order for this, many steps have to be taken to change the male dominated nature of public spaces in Dhaka. Activities that would encourage more women to use public spaces should be planned and encouraged. In terms of design and infrastructure, public spaces should be planned to encourage people and especially women to use without fear. One such example of making public spaces comfortable for women and children is provide better street furniture and improve civic facilities like public toilets.

- Lighting**

The audits have clearly shown a strong link between better lighting and the feeling of safety. It is therefore crucial to have good lighting uniformly across the city. Currently some places are well lit, but others are poorly lit. The maintenance of lighting should be done regularly along with providing sufficient uniform lighting throughout the stretch.

- Improve last mile connectivity**

The audits indicate that there is a need to ensure that last mile connectivity is made more efficient and safe. Our audits show that the waiting areas, near bus stops for example, are not well maintained or safe and these need to be improved. Further these areas need to be better organised to ensure that last mile connectivity is improved.

- Improve police presence**

Audits in many areas, such as Badda have shown that police presence is very low in some parts of the city. Visible security, public or private, is not accessible in most parts of the city. Regular safety audits can be used to ensure that updated data is available for the police so that strategic planning for patrolling and check points and improvement can be done on a regular basis.

- **Ensure there are better walk paths**

A path to walk comfortably is basic necessity for people in the city. City must be able to provide well-constructed walk paths in public spaces for comfortable movement of pedestrians. Through the safety audits it was observed that most part of Dhaka north lacks walk path or has fractured paths. While designing the city, urban planners and development authorities must spend resources to design wide and levelled dedicated pedestrian paths.