Akshara
empowering women and girls

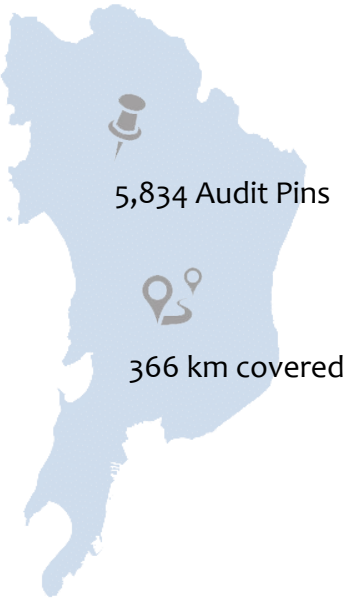
SAFETIPIN
Supporting Safer Cities

UN WOMEN
United Nations Entity for Gender Equality and the Empowerment of Women

UBER

The manual safety audits were conducted by the volunteers from **Akshara**. Safetipin Nite data was collected by **UBER**.
We are thankful for their collaboration.

Mumbai



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

At the core of the app is the Safety Audit. A Safety Audit is a participatory tool for collecting and assessing information about perceptions of safety in public spaces. The audit is based on nine parameters – Lighting, Openness, Visibility, Crowd, Security, Walkpath, Availability of Public Transport, Gender Diversity and Feeling.

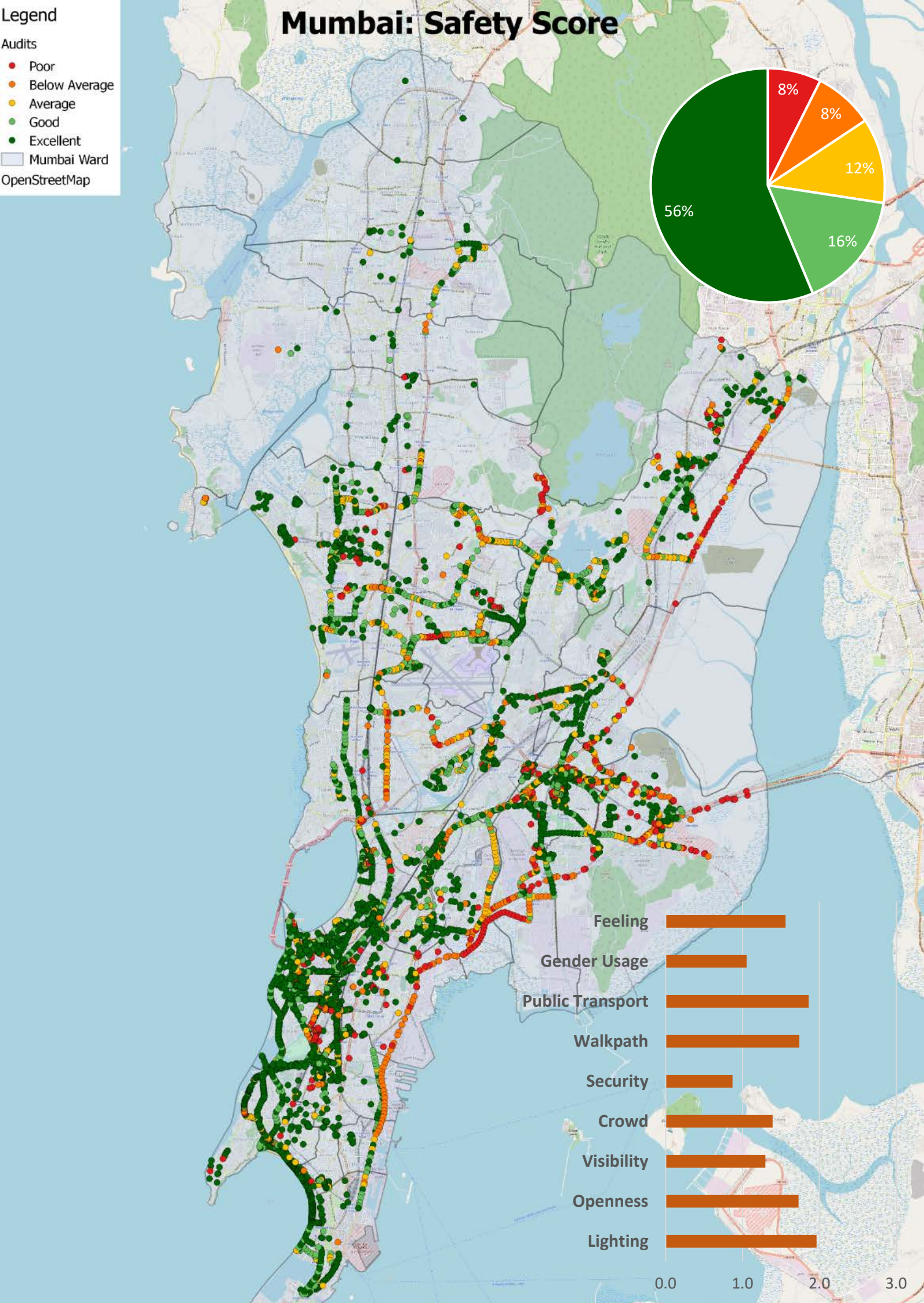
This report has been prepared as part of the Project, 'Mobile based Safety Audits to collect data on Women Safety' undertaken with **UN Women**. Audits have been conducted in collaboration with our local partners, **Akshara** and **Uber**.

Methodology

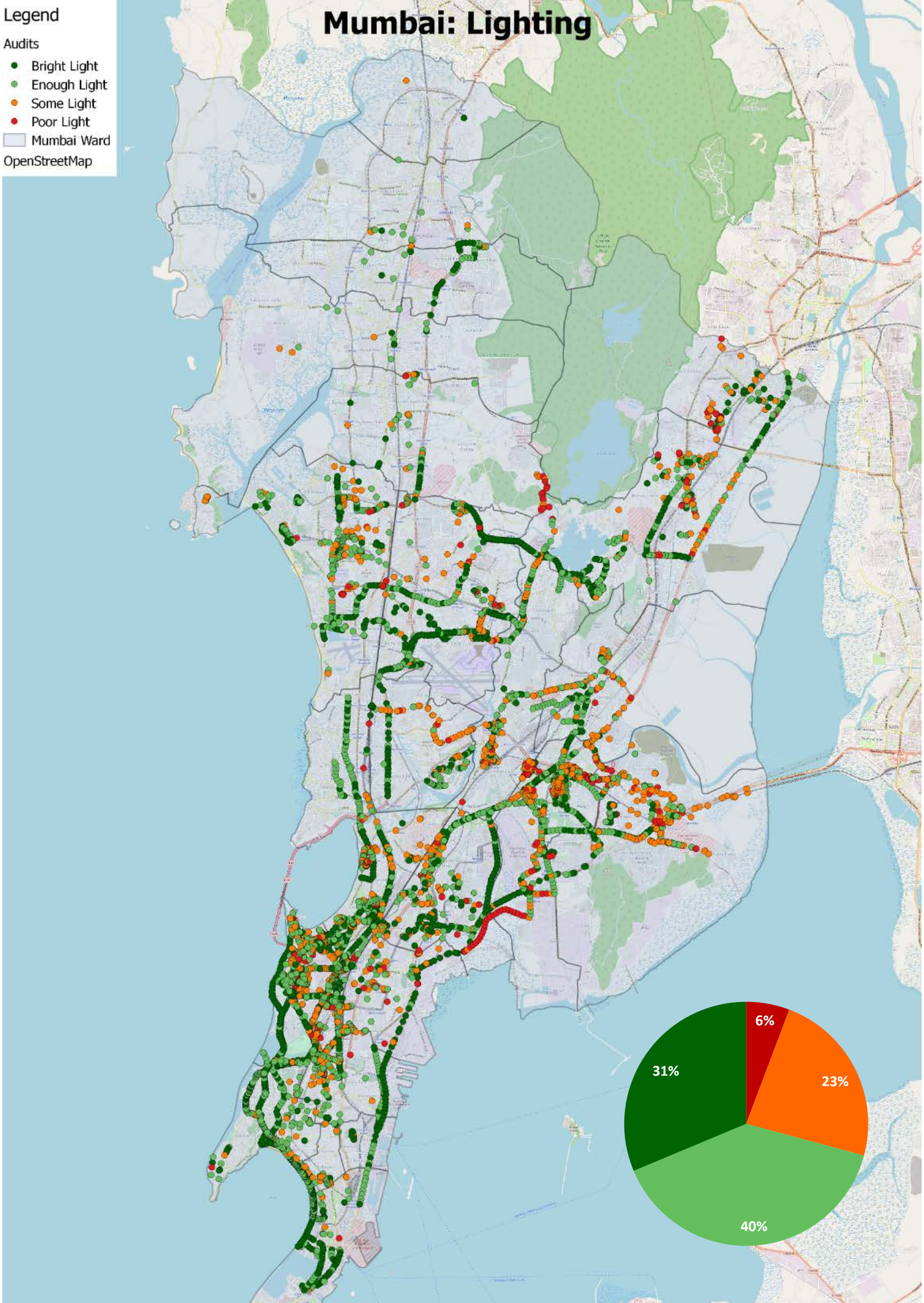
The safety audits have been generated using two methods. Manual audits were conducted by volunteers from Akshara organization using ***My Safetipin*** app. Additional safety audits have been generated using the ***Safetipin Nite*** app. Mobile phones were mounted on the windshield of the UBER cabs, and using the app photographs of the city roads were taken. These photographs were then assessed based on the eight audit parameters to generate audit pins at each location. The assessment was done post sunset till 10 pm.

A total of 5,834 audits have been generated over 366 km of road length. Overall, the Safety Score for Mumbai is rated 3.4/5 i.e. Good.

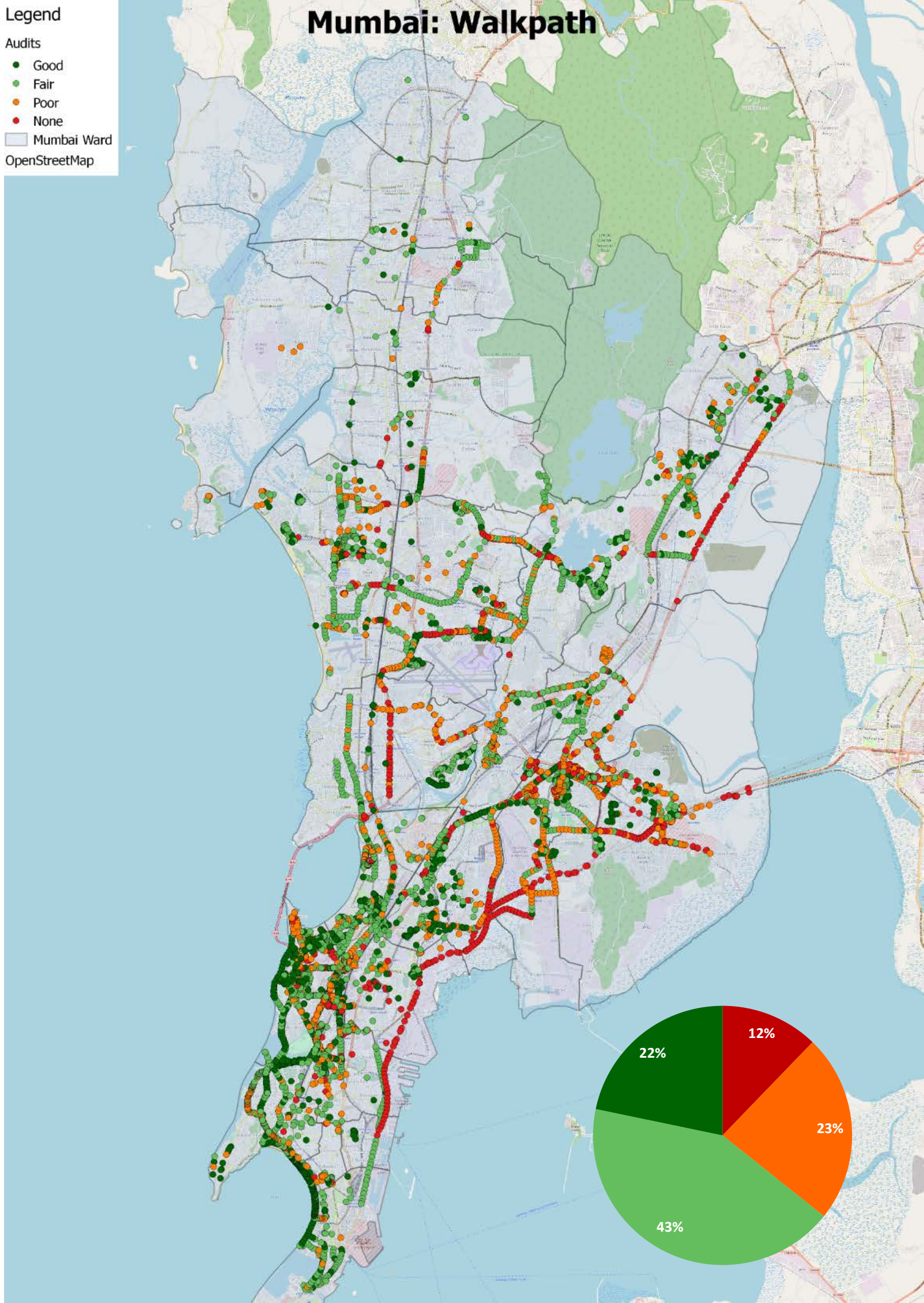
Light(Night)	Lighting measures the amount of brightness/ illumination at a place and ranges from Dark to Bright. A place can be lit with street lighting or from other sources.
Openness	Openness refers to whether a person has a good line of sight in all directions.
Visibility	Visibility refers to how visible is one to others. It is based on the principle of 'eyes on the street'. This comprises windows-doors of shops, houses along with street vendors and hawkers.
People	People indicates the number of people around. This increases as a consequence of usage opportunities.
Security	Security refers to visible security offered either by the police or private security guards (for example along ATM/Bank).
Walk Path	Walkpath indicates whether a person can comfortably walk at a place. This could refer to the quality of a pavement or space along a road.
Public Transport	Transport refers to the ease of accessing any mode of public transport i.e. metro/bus/auto/taxi etc. and is measured in terms of the distance to the nearest mode.
Gender Usage	Gender is about diversity i.e. the percentage of women and children amongst the crowd. This increases as a consequence of safety perception.


Mumbai: Safety Score
Legend
Audits
Poor
Below Average
Average
Good
Excellent
Mumbai Ward
OpenStreetMap
8%
8%
12%
16%
56%
Feeling
Gender Usage
Public Transport
Walkpath
Security
Crowd
Visibility
Openness
Lighting
0.0
1.0
2.0
3.0

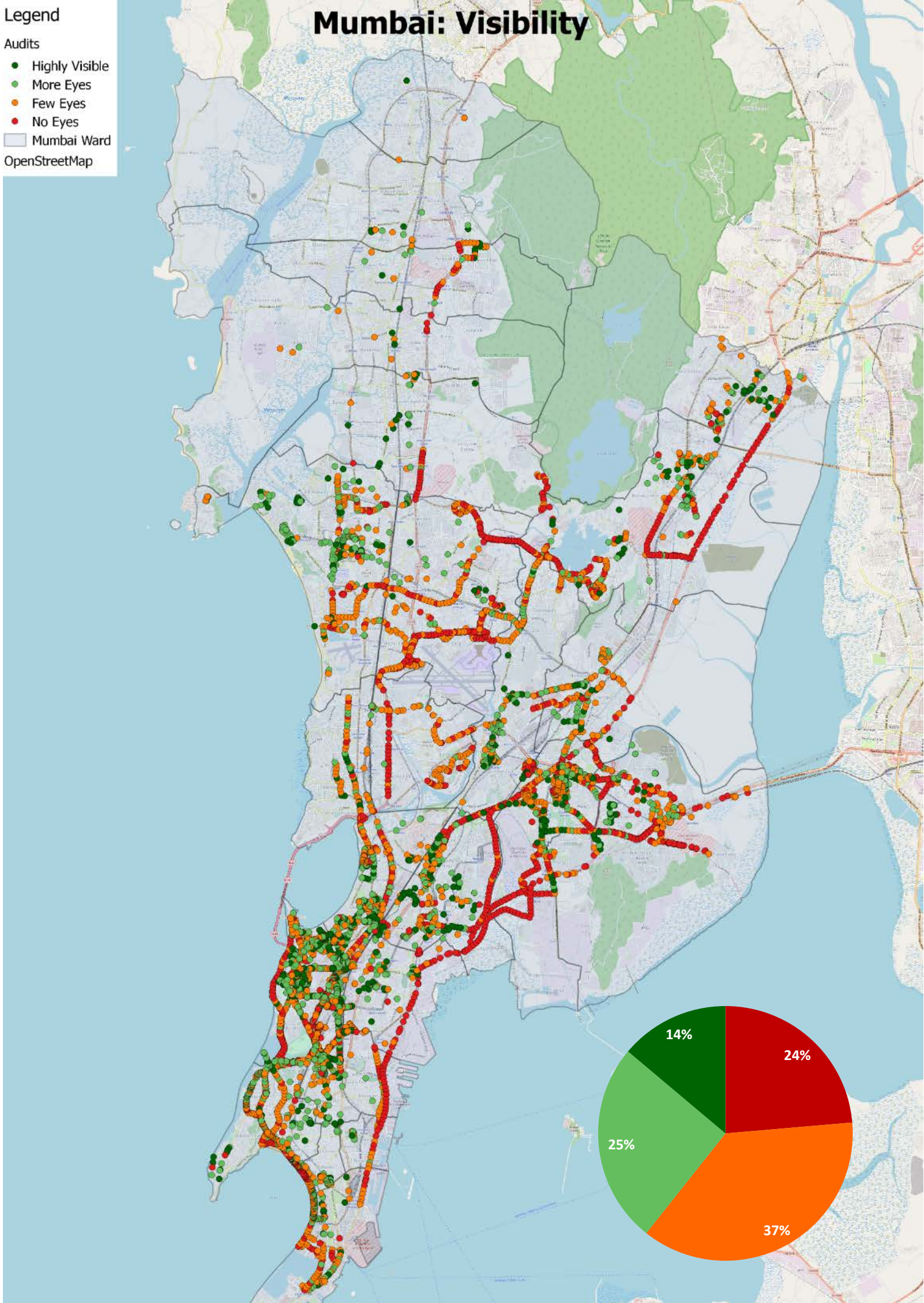
Mumbai: Lighting



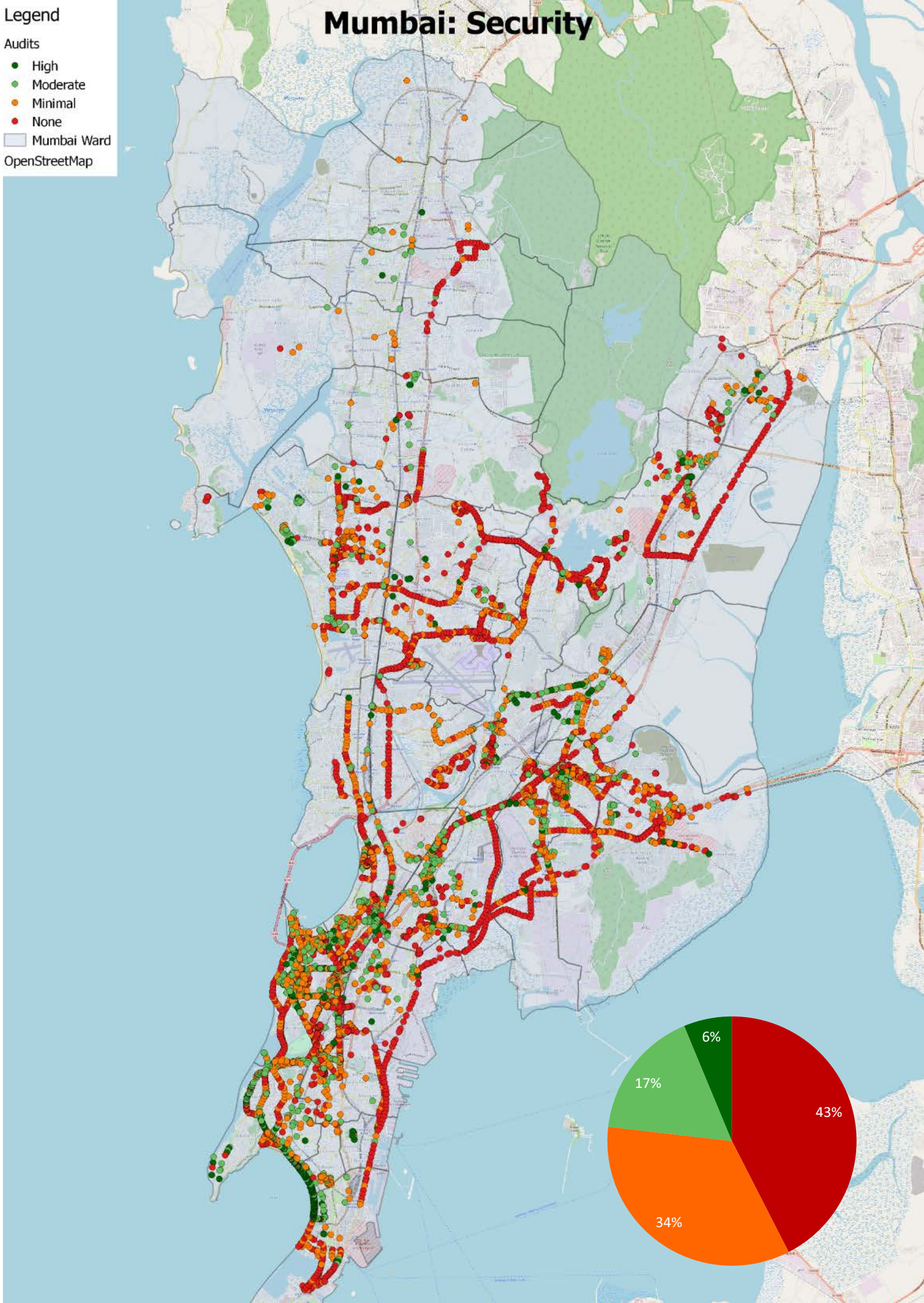
Mumbai: Walkpath



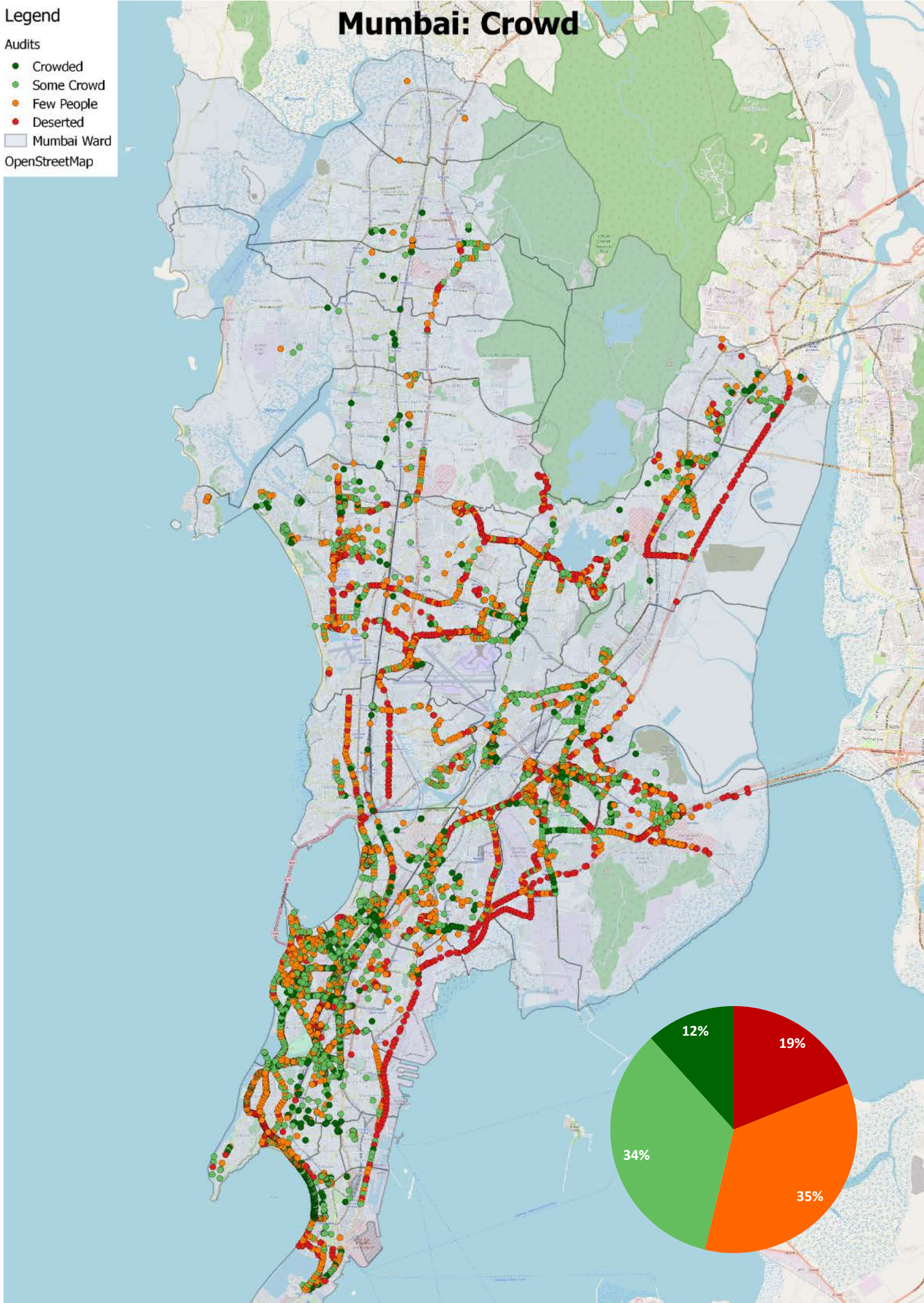
Mumbai: Visibility



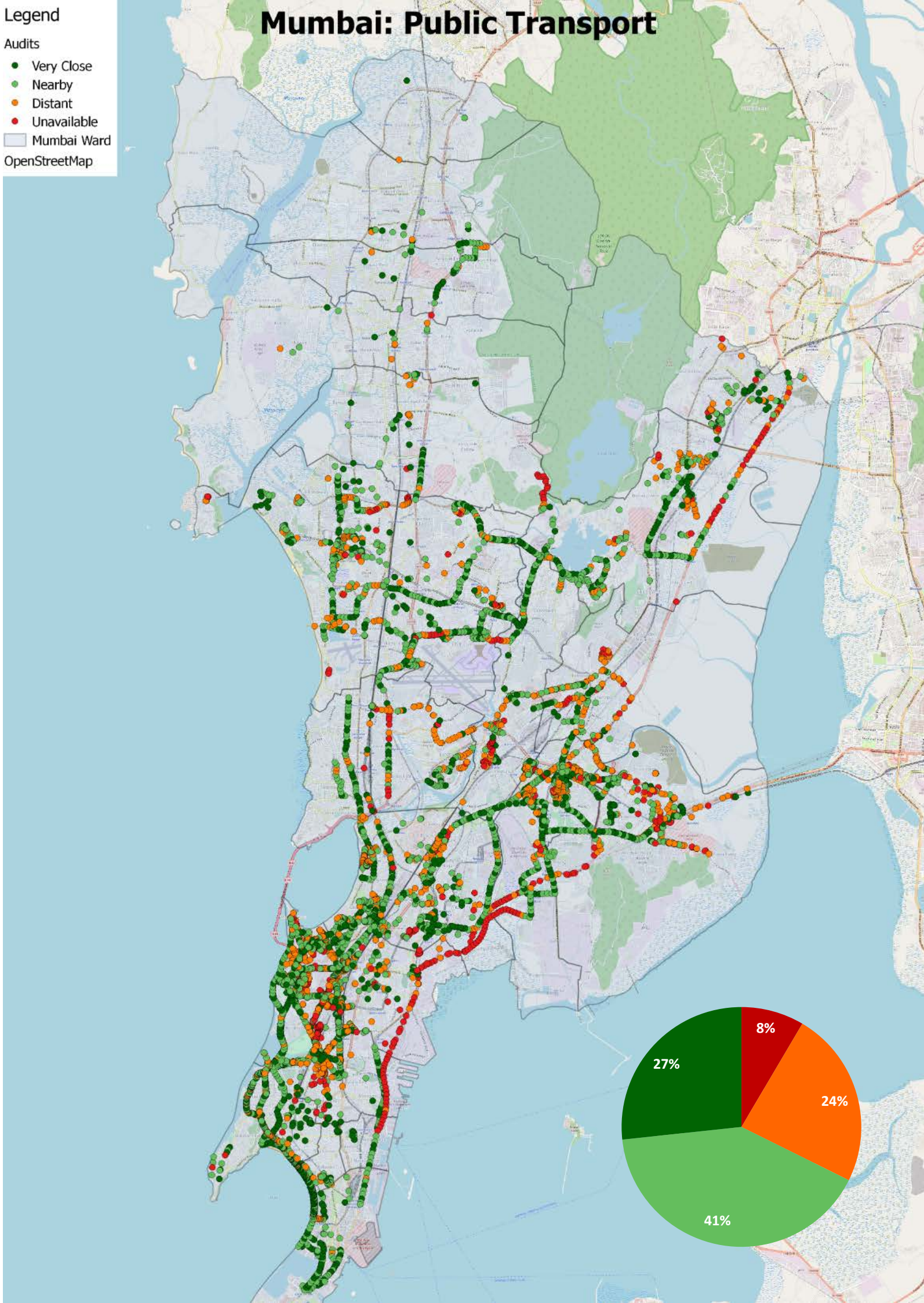
Mumbai: Security



Mumbai: Crowd



Mumbai: Public Transport



The safety ratings varies largely on account of the infrastructure provision and planning typology of the area. Areas which are well lit, have proper footpaths, has access to public transportation and are active, tend to be safer. The Feeling parameter is directly impacted by the other eight parameters. Lighting, Walkpath, Security, Public Transportation and Visibility are infrastructural parameters that can be improved upon. This improvisation would result in more people especially women using public places at night.

Recommendations

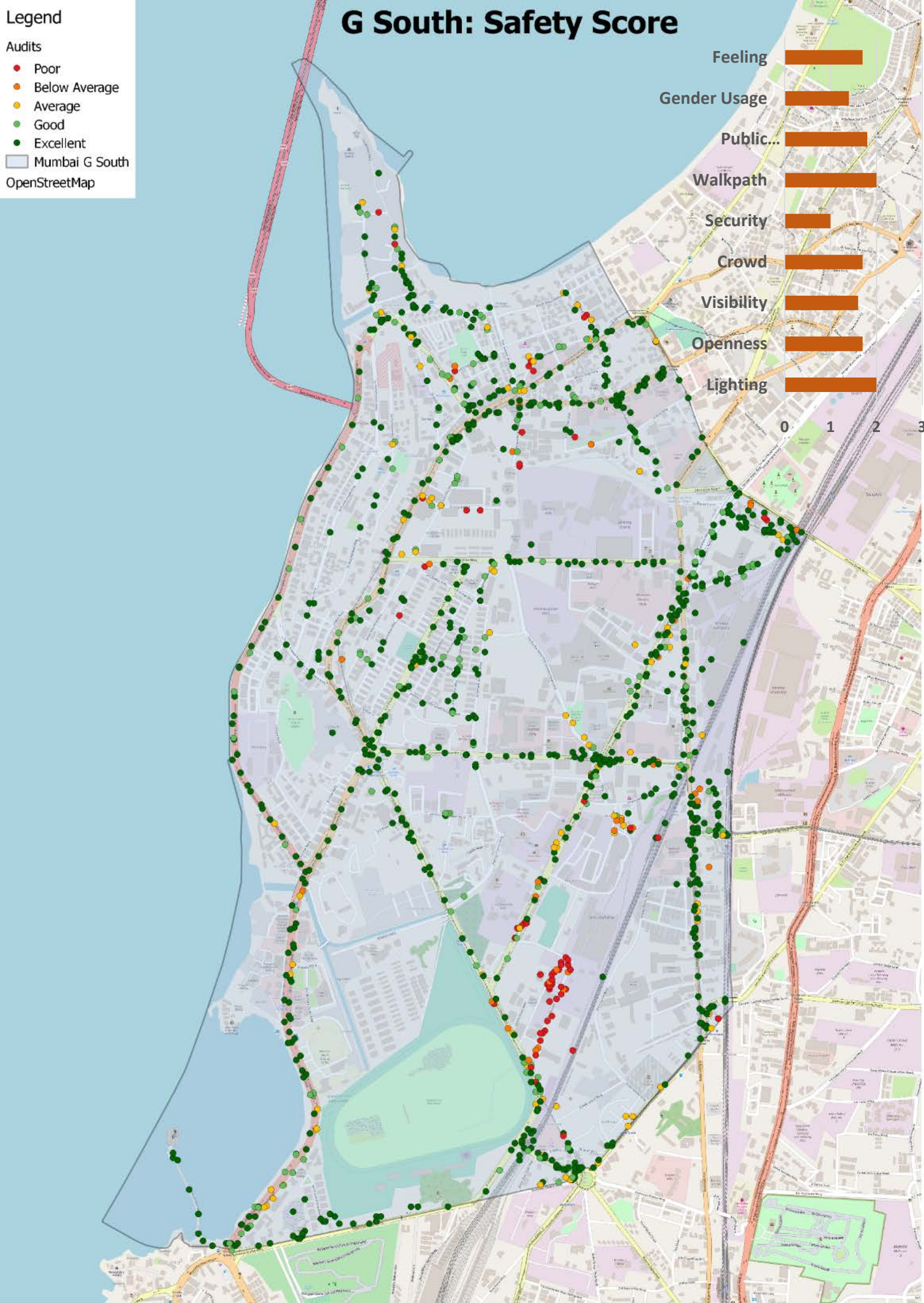
- **Enhance Illumination along Walkpath** – The existing streetlights that have been found un-operational need to be checked. Also, regular checks are necessary to ensure that all streetlights are operational at all times. Streetlights need to be installed along areas, identified as dark spots i.e. at these locations there is no illumination at present. Additional streetlights need to be installed in areas having poor levels of illumination. Along the main roads having four lanes or more, streetlights are provided only on one side or along the central median of the road. In such cases, additional streetlights need to be installed along the footpath. Pedestrian scale streetlights should be installed focused towards the walkpath and not the vehicular carriageway.

- **Construct Pavement and Repair existing ones** – At certain locations, the pavement was found to be broken. This damage needs to be repaired and a proper paved surface needs to be created. Along certain roads either no footpath exists or space has been left for one but it hasn't been constructed. A proper footpath needs to be constructed, free of any obstruction. Also provision should be made to ensure smooth movement of people with any form of disability.

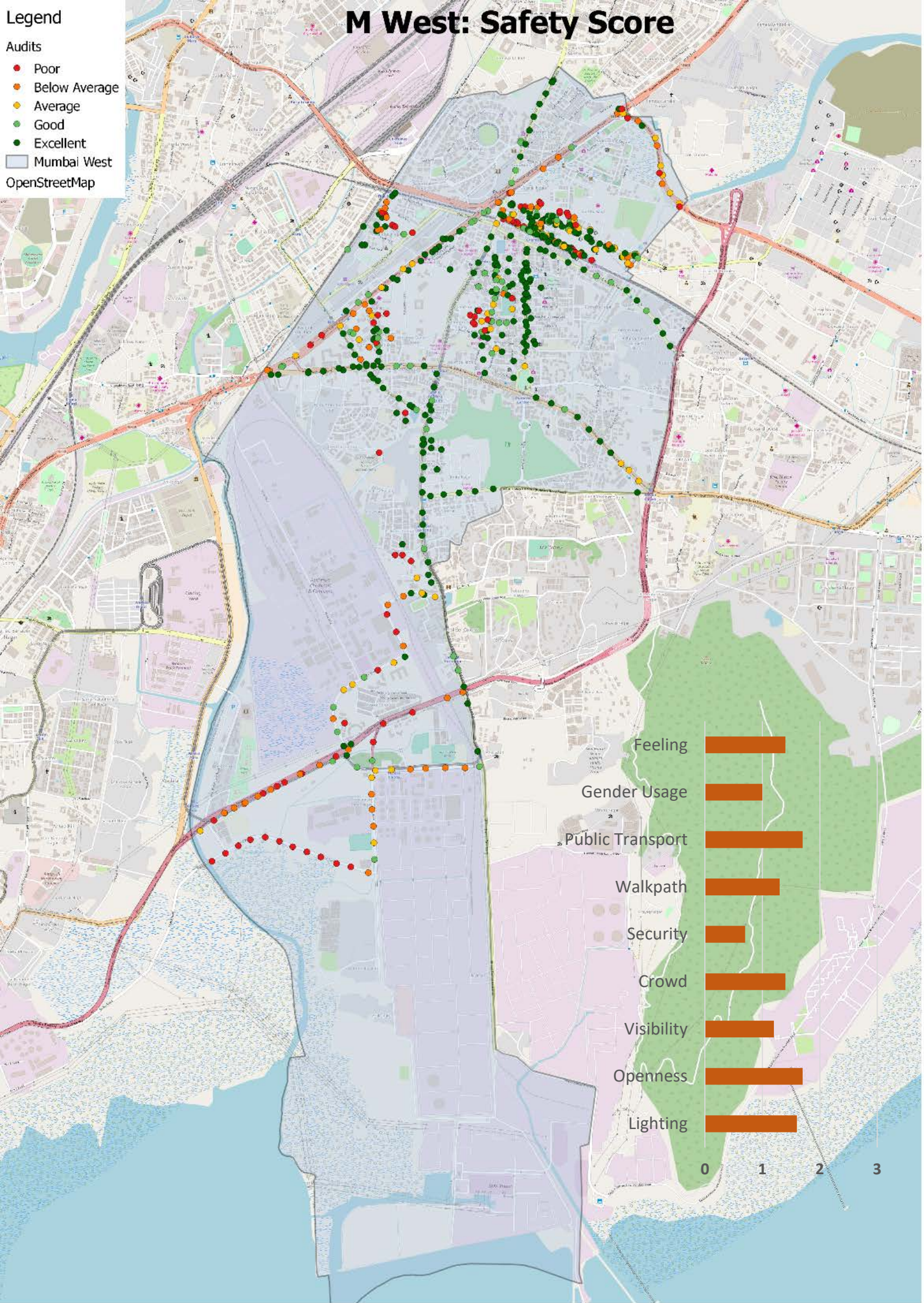
- **Improve Security** – Many areas do not have any form of security – private guards or Police. Regular police patrolling needs to be ensured in all areas.

- **Improve Visibility** – Hawkers and vendors add to one's visibility. Designated Hawker Zones need to be created for them. These should be provided with Public Convenience facilities along with Street Furniture. Creating such zones throughout the city will help activate the public realm making one feel safer.

- **Improve the Public Transport's services-** Mumbai's transport network is lifeline of this city and its' stations are the most used public space. Therefore, lighting and footpath in and around railway stations and bus stops should be improved. There is a need for designated para-transit stands where autos and taxis can be parked and from where they can be hailed. These should be equipped with Public Convenience facilities and street furniture.


Legend
Audits
Poor
Below Average
Average
Good
Excellent
Mumbai G South
OpenStreetMap
G South: Safety Score
Feeling
Gender Usage
Public...
Walkpath
Security
Crowd
Visibility
Openness
Lighting
0
1
2
3

M West: Safety Score



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