



Steps to Sustainability:

The Walkability Landscape in Chennai, India and its Impacts

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Source: Elements Creative for Smart Cities Mission and ITDP India



Polo View, Srinagar

Source: SCM & ITDP Documentation - Elements



Janpath Road, Bhubaneswar

Source: SCM & ITDP Documentation - Elements



Race Course Road, Coimbatore
Source: SCM & ITDP Documentation - Elements

Pedestrian priority projects emerging across the country



Bengaluru
Source: SCM & ITDP Documentation - Elements



18 cities created 3-year action plans



15 cities adopted Healthy Streets Policies. 17 other cities are working towards adopting similar policies.



33 cities implemented over 570 km of walking and cycling projects, and **over 1400 km** are underway in **48 cities.**

Measures to build support from citizens



Capacity development in decision makers and city officials:

City-level workshops (online and offline)

Coordinating site visits to best practice examples

National Workshops hosted as knowledge partner to SCM for 37 cities and 200 participants in Chandigarh, Bengaluru & Pimpri Chinchwad



Walking is a basic human right & every citizen walks to access opportunities

50% of all urban school going children in India, walk to school*.

Kohima

Source: ITDP Documentation

**Household Social Consumption on Education in India, 2018*



Cities have started understanding the need

Walkable cities improve road safety for all

In Jabalpur MR4 Road - **There has been a 15% drop in the road accidents post implementation of the project.**

Street 106 in New Town Kolkata witnessed the **improvement of personal safety in the space by 93%**, 23% reduction in fatal accident cases and 25% reduction in non-fatal accidents.

MR4 road, Jabalpur

Source: SCM & ITDP Documentation - Elements



Walkable cities boosts public transport ridership through first and last mile connectivity.

47% of people walk and cycle across Indian cities, 21% use Public Transport*

Every 9 out of 10 trips by women are on foot and public transport*

Srinagar

Source: SCM & ITDP Documentation - Elements

**Census 2011*



Cities have started understanding the need

Walkable cities improve businesses

Gol bazaar, Jabalpur witnessed 70% increase in footfall, nearly 1000 users per day on weekdays and 2000 users on weekends.

In Chennai Pandy Bazar - Retail shop owners reported an increase in sales by 15 to 20% post the project implementation

Pandy Bazar, Chennai

Source: SCM & ITDP Documentation - Elements



Walking is healthy - both for one's health and environment.

30 min walk can reduce the risk of heart disease by 19%*

Physical activity can reduce the risk of depression by 45% and dementia by 10%**

Linear Garden Street, Pimpri Chinchwad

Source: SCM & ITDP Documentation - Elements

*Health line article, 2018

** WHO



Walkable cities align with State, National & International Commitments

It will enable us to achieve Sustainable Development Goals.

Goal 3.6 under SDG 3 says - By 2020, halve the number of global deaths and injuries from road traffic accidents.

Goal 11.2 under SDG 11 says - By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport

Goal 13.1 under SDG 13 says - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters.

Chennai's Street Transformation Journey



2013 onwards

Over **80 Engineers from GCC** were trained by ITDP in partnership with School of Architecture and Planning.



Photo: A hands-on studio session at SAP, Anna University (2014)



Photo: GCC officials in Pune

2014

Chennai became the **first city in India** to adopt a **Non-Motorised Transport Policy** prioritising it's pedestrians.



Photo: GCC Officials at LTA, Singapore (2013)



Photo: Hands-on workshop for GCC engineers (2019)

2014-15

The Bus Route Roads department **empanelled 6 Architects / Urban Designers** for designing the identified streets to cater to **all road users including pedestrians.**

ITDP, along with GCC, conducted **training workshops** for the designers and BRR engineers.



**Every year ~50% of the TURIF funds
were allocated for footpath
improvements**

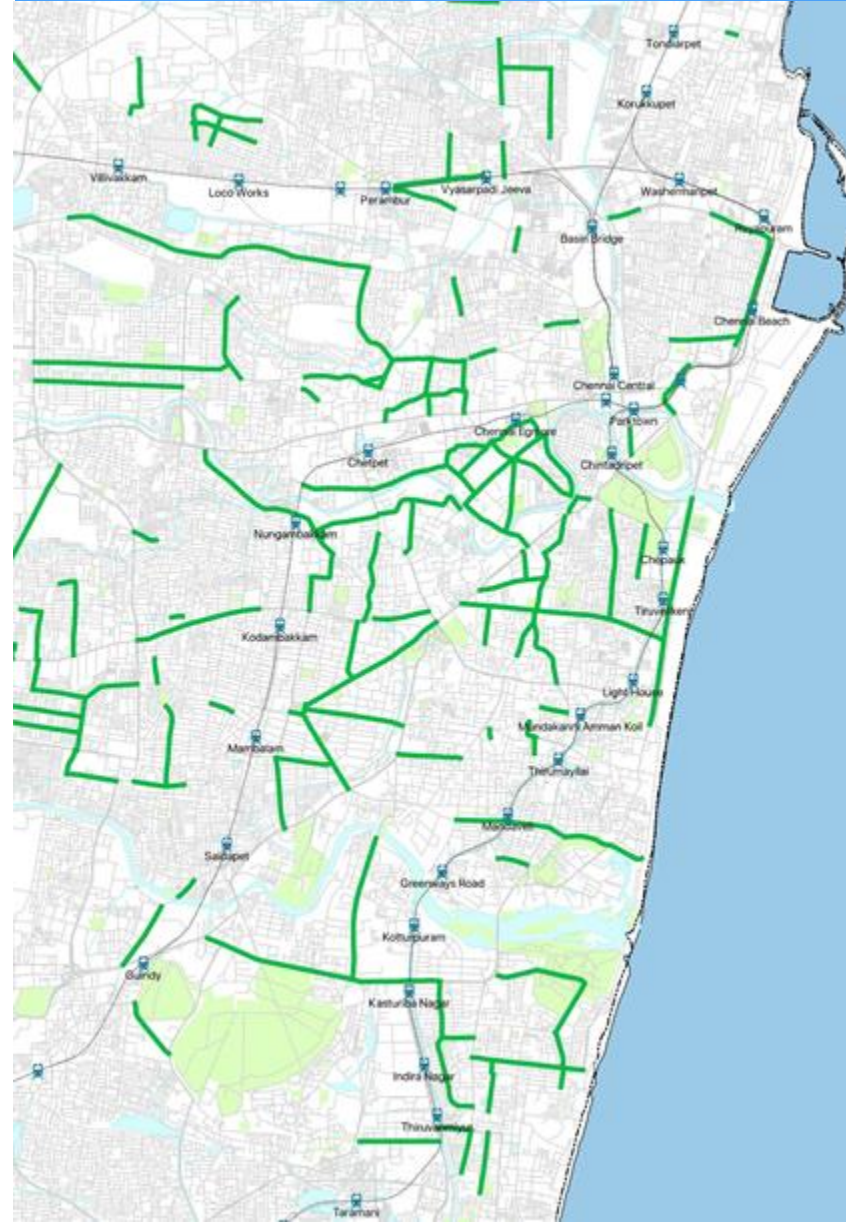
from 2014-2019

Over 170 KM of streets redeveloped (BRR roads)

2014-2020

The Greater Chennai Corporation transformed **Bus Route Roads every year** with safe and comfortable pedestrian friendly infrastructure (~170km in total*)

The streets were implemented in different phases



Radhakrishna Road



Raman Street

* Based on data provided by Bus Route Roads department

Pedestrian Plaza Transformation



Scaling up the city's effort

2020 onwards

The Complete Streets Project will **improve accessibility to**,

- **42 metro stations**
- **21 railway stations**
- **911 bus stops**

across the 6 neighbourhoods!

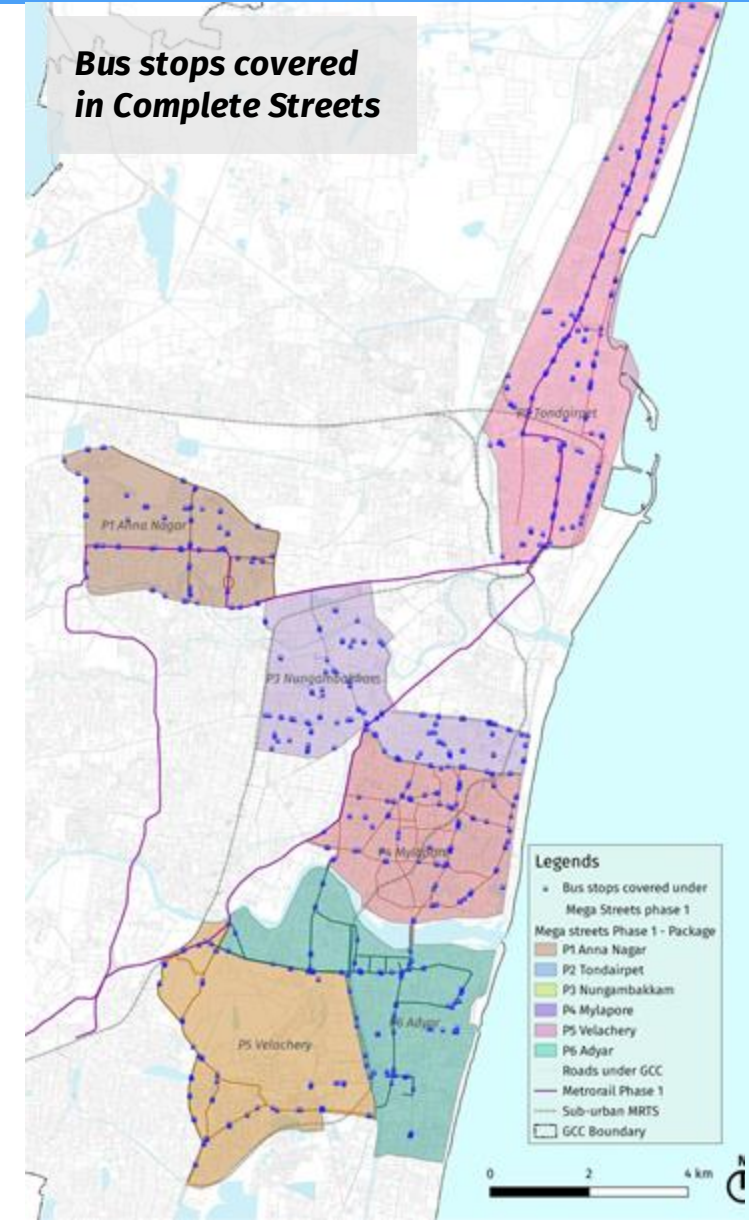
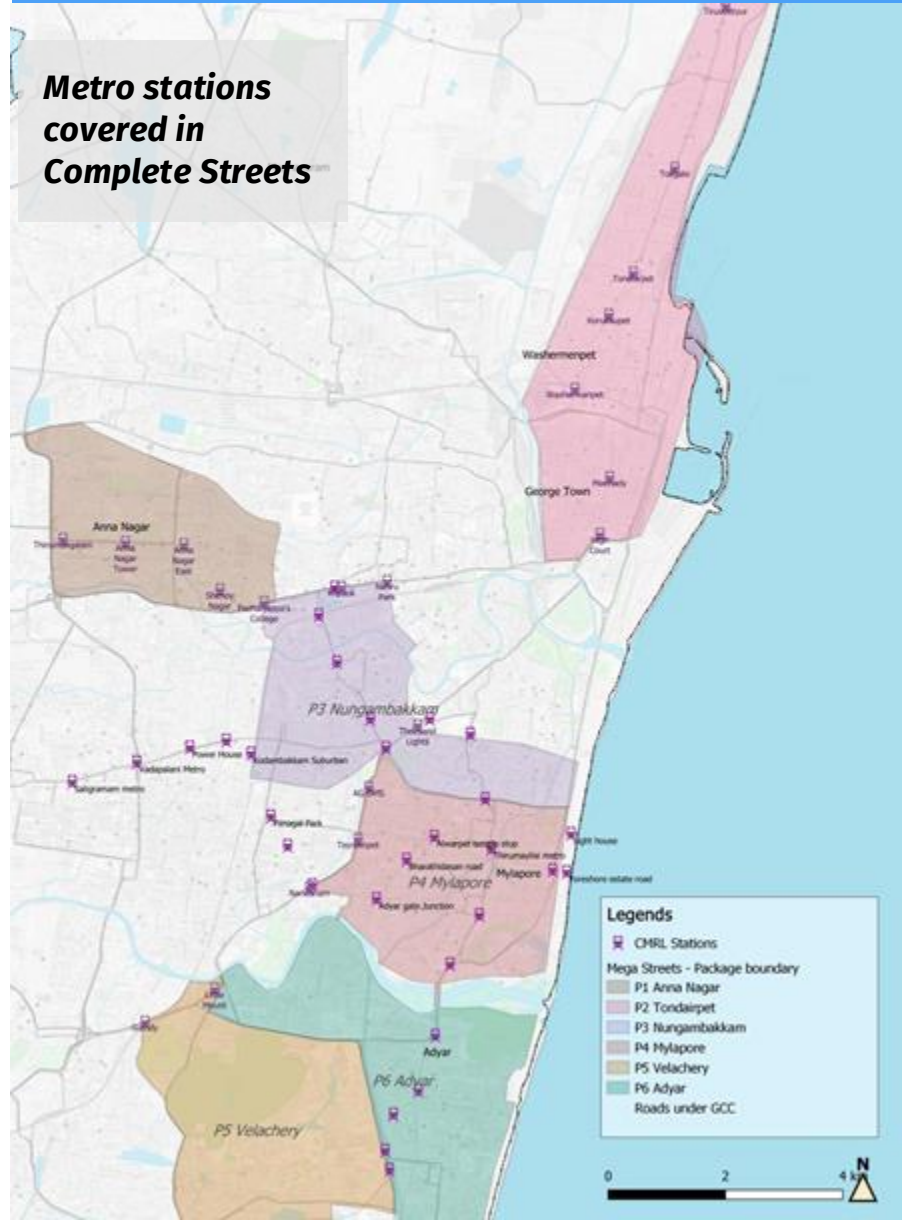
The Complete Streets project will **improve accessibility to**

- **610 schools**
- **174 anganwadis**

and serve,

- **220 EWS settlements**

across the 6 neighbourhoods



Ongoing implementation

The **World Bank** has initiated a unique collaboration with the Government of Tamil Nadu as the 'Chennai City Partnership' (CCP) in 2020 across three pillars:

- (i) strengthening institutions;
- (ii) enhancing quality of urban services; and
- (iii) improving financial sustainability of service delivery

Key Feature of PforR:

The **Disbursements linked indicators (DLIs)** are designed focusing on the physical infrastructure to be developed on the one hand and basing the disbursement of funds upon achieving pre-agreed indicators.





The Impacts of New Footpaths in Chennai

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Steps to Sustainability

THE IMPACTS OF NEW FOOTPATHS ON MODE CHOICE IN CHENNAI, INDIA 2024



Scope: 4 study areas out of 100+ km of footpaths designed and built from 2013-2019

Goals:

- Evaluate the impacts on quality of life and the environment
- Demonstrate the importance of investing in footpaths



➤ User Intercept Surveys



➤ Pedestrian Counts



➤ Geospatial Analysis

Methods: Climate & Air Quality

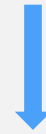
User Intercept Surveys



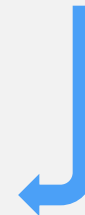
Shift from other modes to walking



Pedestrian Counts



Total distance walked on footpath network



Change in km travelled by each mode

95% of all users of pedestrian plaza, including 93% women said that the space was more safer after 10pm - after the intervention

100% of users of pedestrian plaza said that the space is more safer for children after the intervention

Nearly 100% of users said that they walk more often after the project on the stretch

76% of users said that they spend more quality time in the space after the project



TRENDS IN PROPERTY PRICES PER SQUARE FEET



Residential Property prices saw an increase of **20% over a period of 2 years from 11,500/sq.ft to 14,200/sq.ft** after the inauguration of the pedestrian plaza.

Source: Study by JLL Consultants for City Corporation



CLIMATE



Between **4,200 and 12,000 tonnes of CO₂-equivalent emissions are prevented annually** (equivalent to taking about 1,000-2,900 cars off the road for one year).

EQUITY



86% of trips that would not have been made without the improvements were made by lower-income and non-earning people.

6% of women would not have taken their trip if the footpaths had not been improved

ACCESS



1.2 million Chennaites live within a 300-meter walkable network distance of the improved footpaths (11% of the population)

HEALTH



Reduced vehicle activity results in a **reduction of PM2.5 emissions between 150 and 680 kilograms annually.**

Increased physical activity **prevented 340 premature deaths in 2019.**

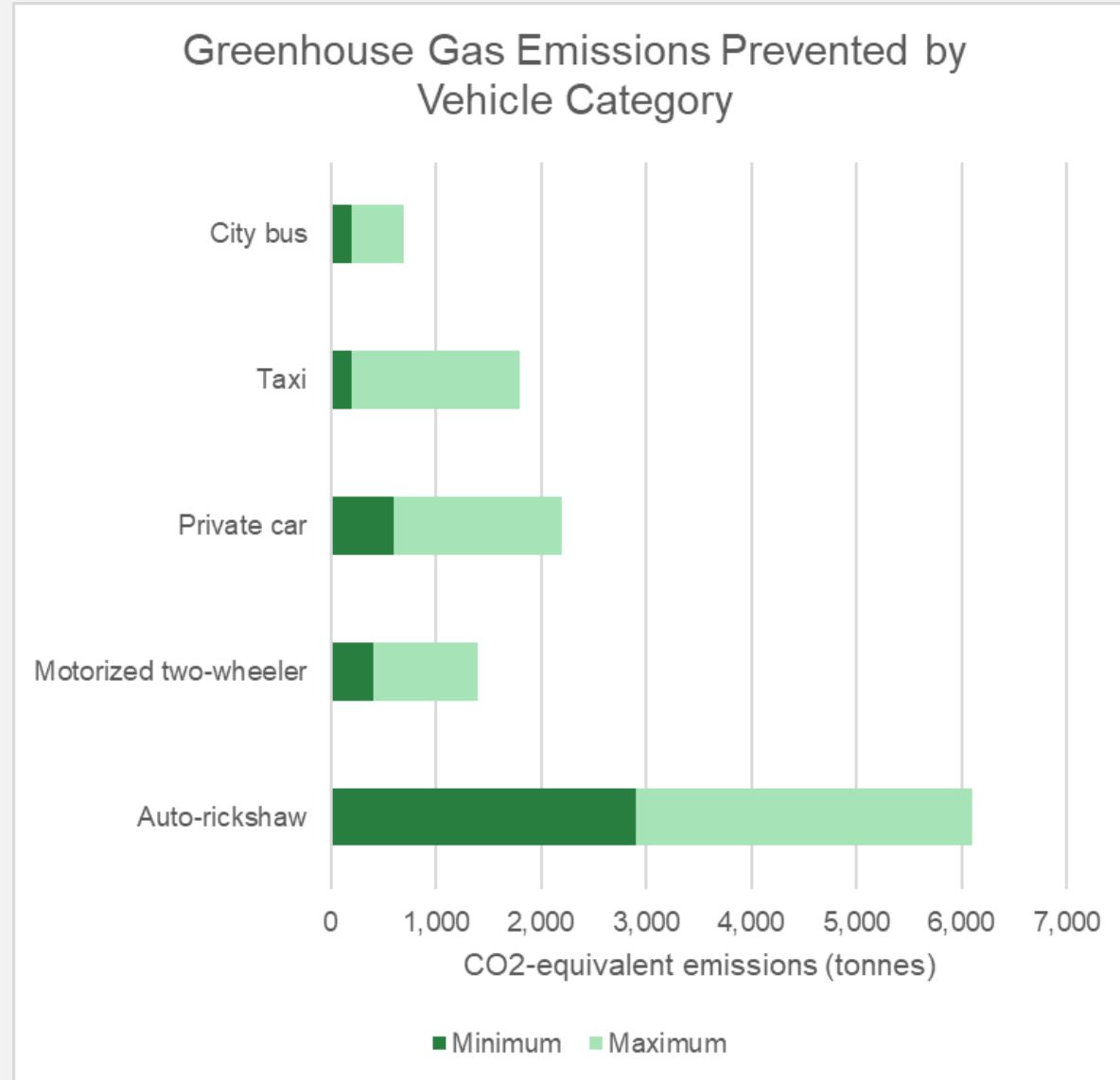
ECONOMY



Chennaites who shift to walking from another mode **save a total of 2.9 billion (~290 crore) INR each year** (USD \$35 million).

**Between 4,200
and 12,000
tonnes of CO2-
equivalent
emissions are
prevented
annually**

Equivalent to taking
about 1,000 to 2,900
cars off the road for
one year



95% of respondents believe that the streets are safer overall, in terms of both personal security and road safety.

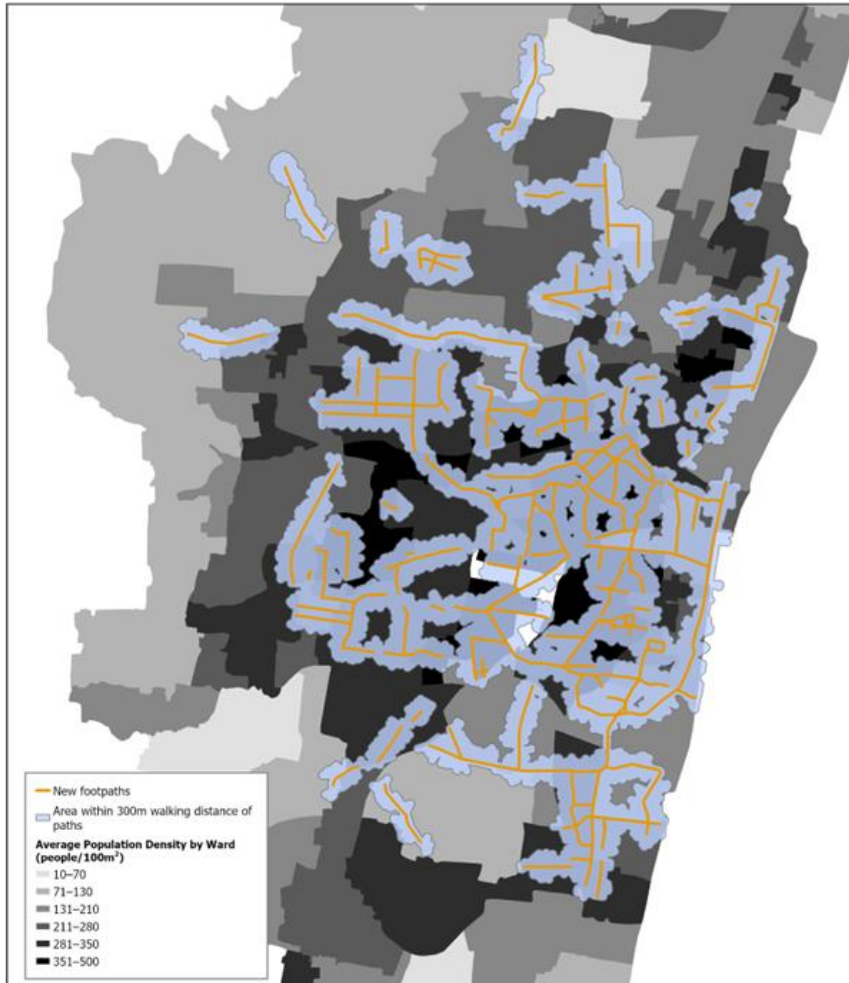
Perceptions of safety by gender among survey respondents

		The Street Is Safer Overall Than Before Improvements	The Street Is Safe After 10 pm	The Street Is Safe for Children
All Streets	All	95%	81%	78%
	Men	93%	83%	80%
	Women	96%	79%	75%

Key reasons for feeling unsafe:

- Lack of other people
- Poor lighting
- Obstruction by parked vehicles

Access to New Footpaths in Chennai, 2020



Sources: Infrastructure Works (December 2019), European Commission (2023), Spatial Data of Municipalities (Maps) Project by DataMeet (2008)

0 1.25 2.5 5 km

11% of the population of Chennai (**1.24 million people**) lives within a 300m walk of the new footpaths.

The project improved access to **300** bus stops.

- Investing in walkability leads to **tangible and intangible benefits** for users and society
- Benefits need to be analyzed by social group to promote equity

