

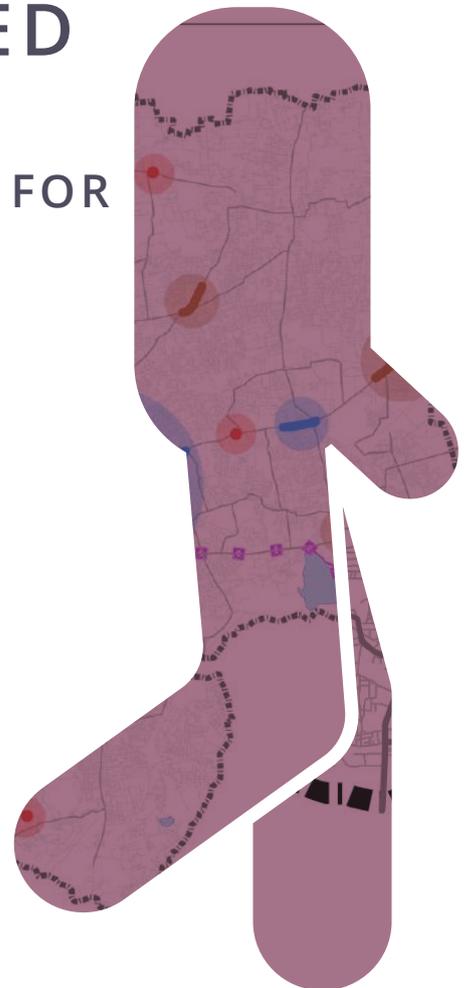
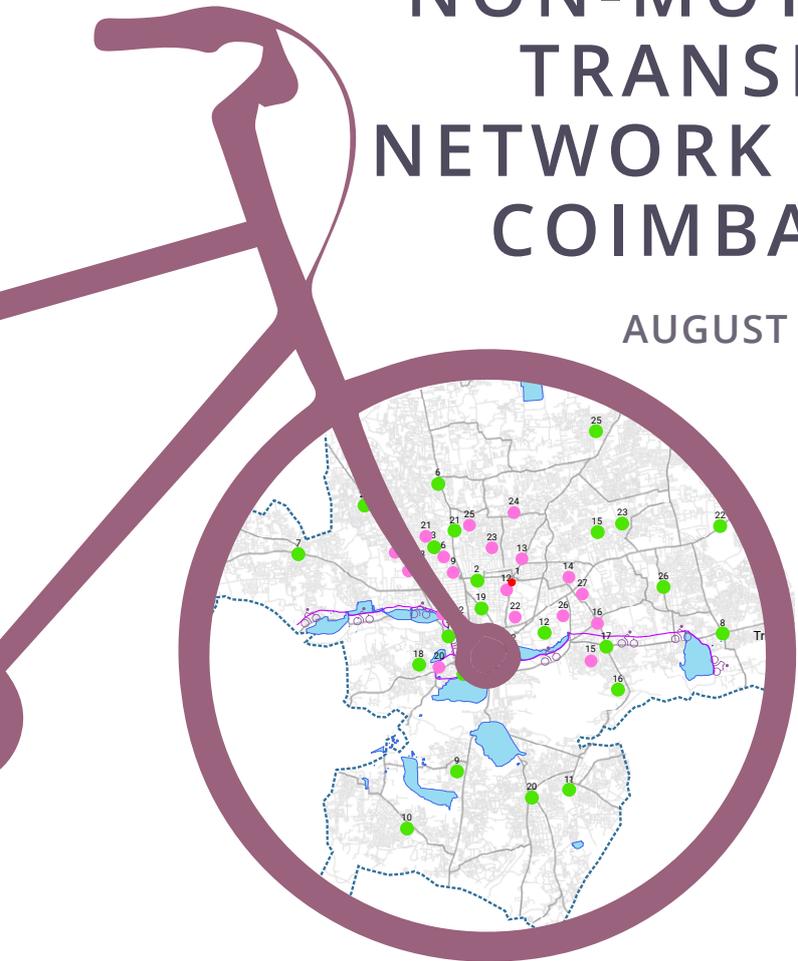


Published by
giz
GIZ - German Engineering
Cooperation GmbH



STEPS TOWARDS SAFER STREETS: HIGHLIGHTS OF NON-MOTORISED TRANSPORT NETWORK PLAN FOR COIMBATORE

AUGUST 2020





NMT, a step towards a cleaner, safer Coimbatore

Climate change poses unprecedented threats to human health and it is our vehicles that play a significant role in aggravating these threats. According to the International Energy Agency (IEA), transportation is responsible for 24% of direct CO₂ emissions from fuel combustion. Road vehicles – cars, trucks, buses and two- and three-wheelers – account for nearly three-quarters of transport CO₂ emissions.

2

<https://www.iea.org/reports/tracking-transport-2019>

Like most Indian cities, Coimbatore, too, is characterised with higher levels of motor vehicle use and inadequate infrastructural support for non-motorised transport (NMT) that make it unsafe for pedestrians and cyclists. Motor-centric roads, absence of or encroached footpaths, inadequate lighting, and vehicles prone to violating speed limits, often result in accidents with NMT users being the worst hit. As per World Road Statistics, 2018 India was at the top of the world in terms of road crashes fatalities.

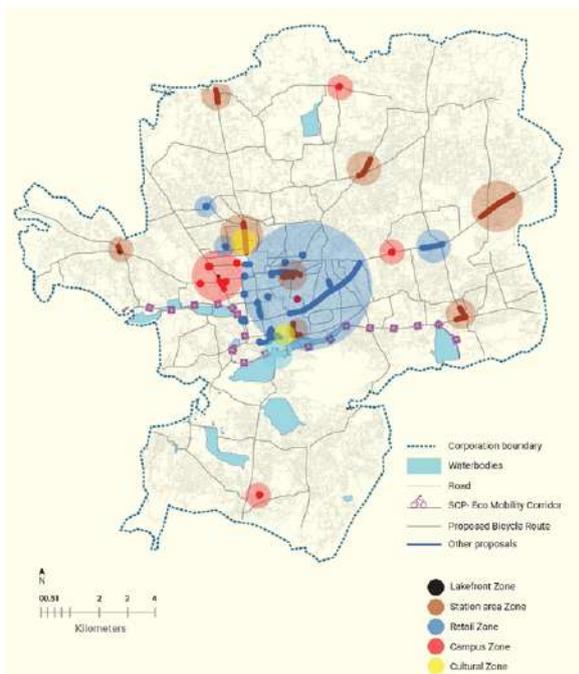


Fig 1

According to the WHO Global Report on Road Safety 2018, India accounts for almost 11% of the accident-related deaths in the world. The report further states that 93% of the world's fatalities on the roads occur in low- and middle-income countries, even though these countries have approximately 60% of the world's vehicles.

<https://www.who.int/publications/i/item/global-status-report-on-road-safety-2018>

https://morth.nic.in/sites/default/files/Road_Accidednt.pdf

With an unprecedented growth of motor vehicles and worsening road safety conditions, non-motorised modes are under threat. This makes it necessary to have a holistic plan that ensures safety and convenience for NMT users, increases the share of non-motorised trips, and promotes the usage of public transport.



In the absence of footpaths in Coimbatore, a pedestrian walks along the carriageway

Walking and cycling in Coimbatore

Non-motorised transport is not only economical, efficient, and healthy, it is an essential mode of transport and connects people to public transport (PT). Presently, 70% of the PT trips in the city start and end by walking or cycling.

More than .7 million walking trips are undertaken daily on the busy roads of Coimbatore. Also, of the 1.6 million people who live in the city (Census, 2011), 100,000 people own bicycles.



While walking and public transport constitute 14% and 43% respectively of the total number of trips in the city, cycling constitutes only 1%. Therefore, this NMT plan aims to increase the share of cycling while retaining the share of pedestrian trips.

To avoid getting trapped in a private vehicle-oriented, high-carbon mobility system, citywide, high-quality pedestrian and bicycle infrastructure is required, with special provisions at the intersections.

Creating safety and convenience for pedestrians and cyclists

The Coimbatore City Municipal Cooperation (CCMC) has already been promoting non-motorised transport through projects such as “Model Roads” and the “8 Lakes Rejuvenation Project” under the Smart Cities Mission.

Through this NMT Network Plan (refer NMT network plan in page 4), CCMC takes a more comprehensive approach. It covers the entire city and focuses on 26 centres (refer Fig 1 in page 2) of high pedestrian activity and a 290 km network of safe routes for cyclists and pedestrians. The Plan is proposed to be implemented in five phases that extend up to the year 2035. INR 1700 crore (237 million USD) is the projected investment in infrastructure.

Benefits for pedestrians:

- High-quality, unobstructed, and continuous footpaths
- Safe street-crossing facilities and traffic-calming infrastructure (such as speed bumps)
- Wayfinding signs, plantation, and shades
- Pleasant public spaces
- Benefits for cyclists:
- Safer intersections and crossing facilities
- Safer and better-organised streets and reduced vehicle speeds

- More road space (e.g. through cycle lanes and tracks)

Social, economic, and environmental benefits of the NMT Plan

- The NMT Network Plan is expected to directly benefit 1 million inhabitants (or 60% of the population of Coimbatore) with special focus on the poor, elderly, differently abled, and women.
- This will make it easier and safer for NMT users encouraging people to choose more of the cleaner modes of transport and thereby reducing congestion, support physical well-being, and a more active lifestyle.
- The NMT plans will also have a significant impact on the environment. It is estimated to reduce up to 42,000 tonnes, or 13% of the projected passenger transport-related CO2 emissions by the year 2035. Besides, there will be health benefits due to reductions in harmful local pollutants such as nitrogen oxides, carbon monoxide and particulate matter.

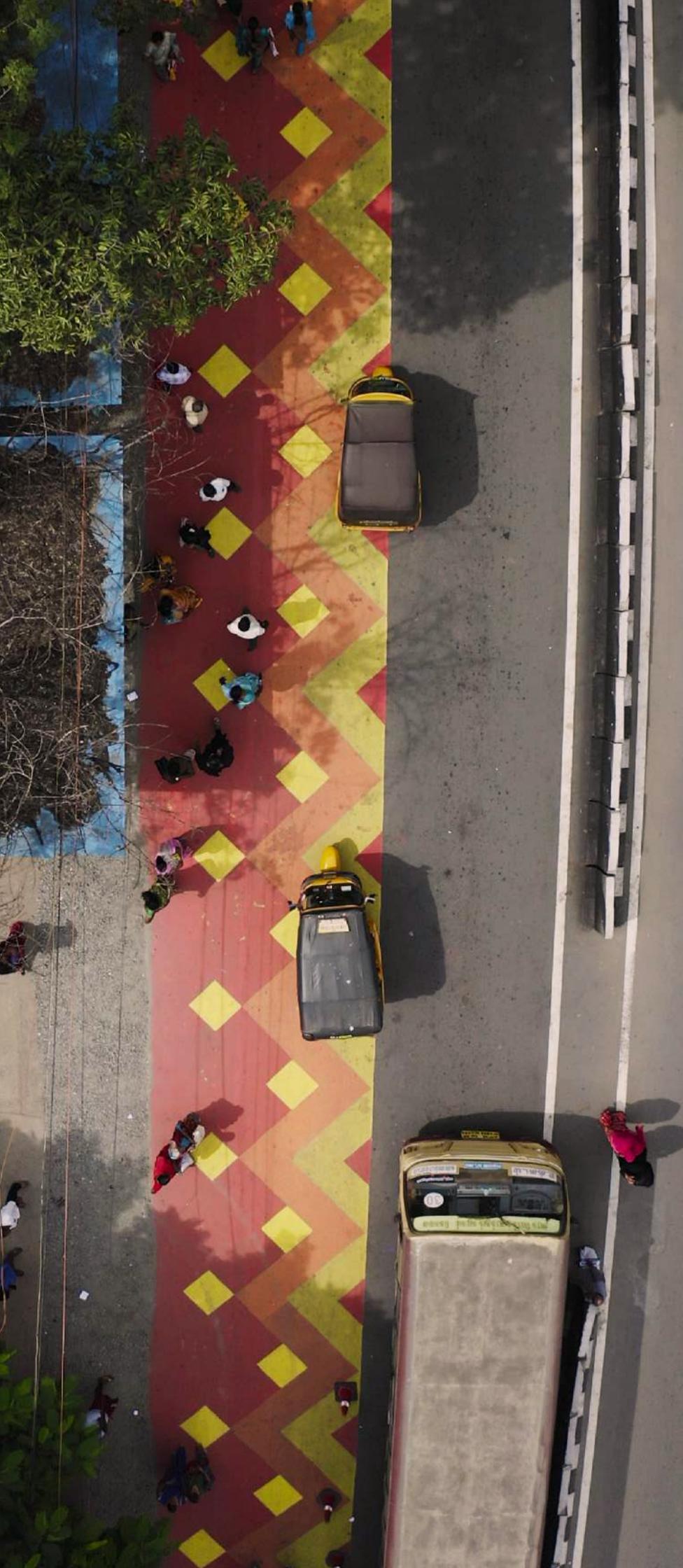
Cooperation between agencies

The CCMC will implement the project in collaboration with several other agencies including the local planning authority, the traffic police, the Transport Department, the State/National Highways Department, and the District Road Safety Committee, among others.

Sample design proposal from the NMT Plan: Making Big Bazaar street a vibrant public space with improved NMT facilities

Big Bazaar Street is among Coimbatore’s busiest commercial area, located in a compact mixed-use neighbourhood. It serves as the primary arterial road connecting Coimbatore Railway Station and the city’s commercial/trade district.

A crucial connector between northern and southern parts of Coimbatore, Big Bazaar street

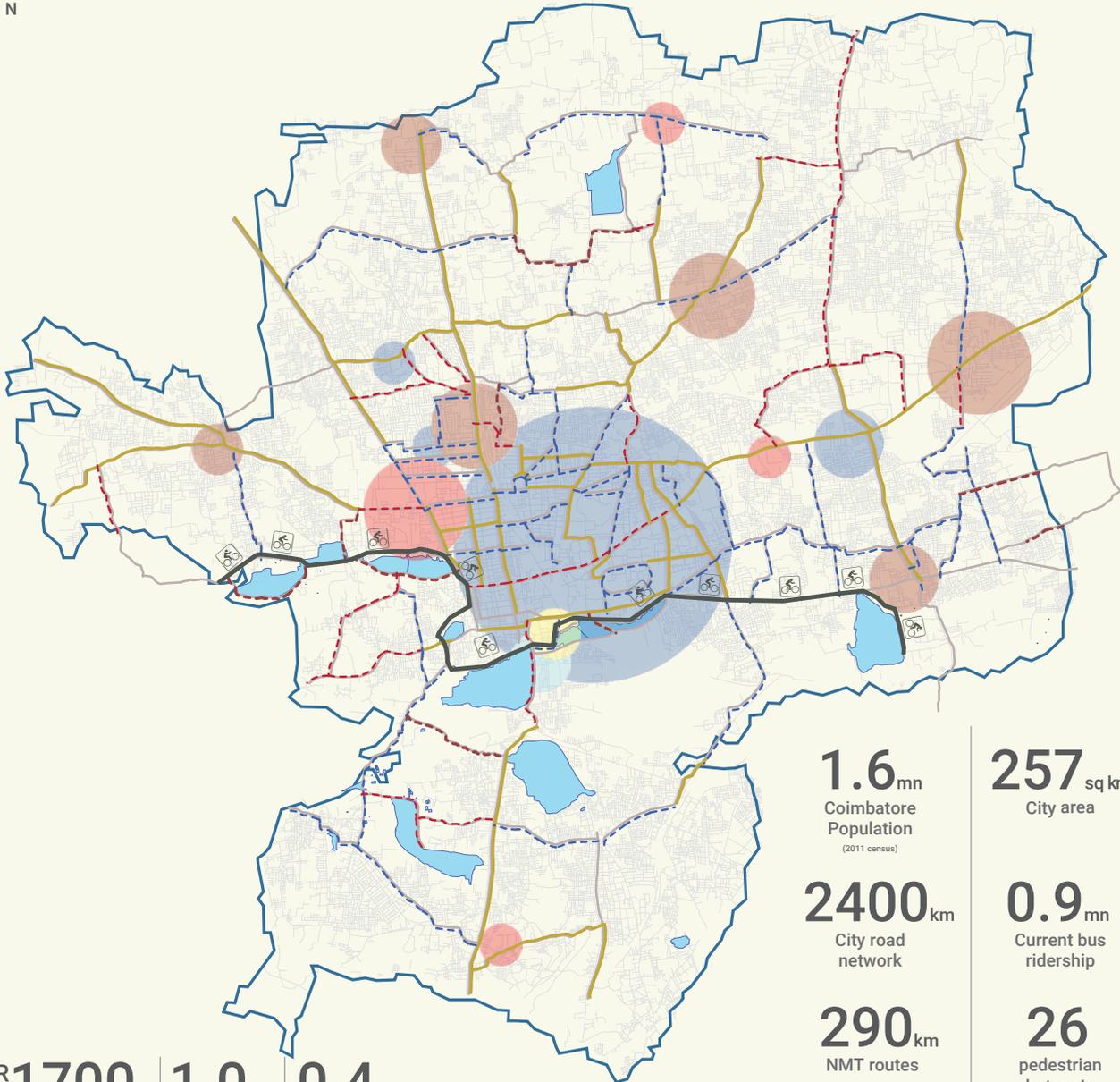


carries around 35,000 passenger car units (PCU) every day with about 100 buses per minute during peak hours. It is also a high intense pedestrian zone with around 7000 pedestrians walking along the street every hour. Though the present road geometry accommodates footpath on both sides, the overall street still requires augmentation, in terms of space and its streamlined allocation for various uses. The proposed design intervention attempts to address these issues and provides a complete street design approach that considers all user groups.

Measures proposed to improve the existing conditions

- Enhancing the experience of the street as a public realm
- Clearly demarcating vehicular lanes with an exclusive bus lane and two traffic lanes
- Intersection improvement with raised intersections and mid-block crossings, to make pedestrian movement seamless
- Improved bus shelters to accommodate increased passenger demand and to provide a comfortable waiting experience
- Assigning special importance to Clock Tower Junction, the street's iconic landmark





INR 1700 cr Estimated budget
1.0 mn Direct beneficiaries
0.4 mn Women get safe access

1.6 mn Coimbatore Population (2011 census)

257 sq km City area

2400 km City road network

0.9 mn Current bus ridership

290 km NMT routes

26 pedestrian hotspots

A NON-MOTORISED TRANSPORT NETWORK PLAN FOR COIMBATORE

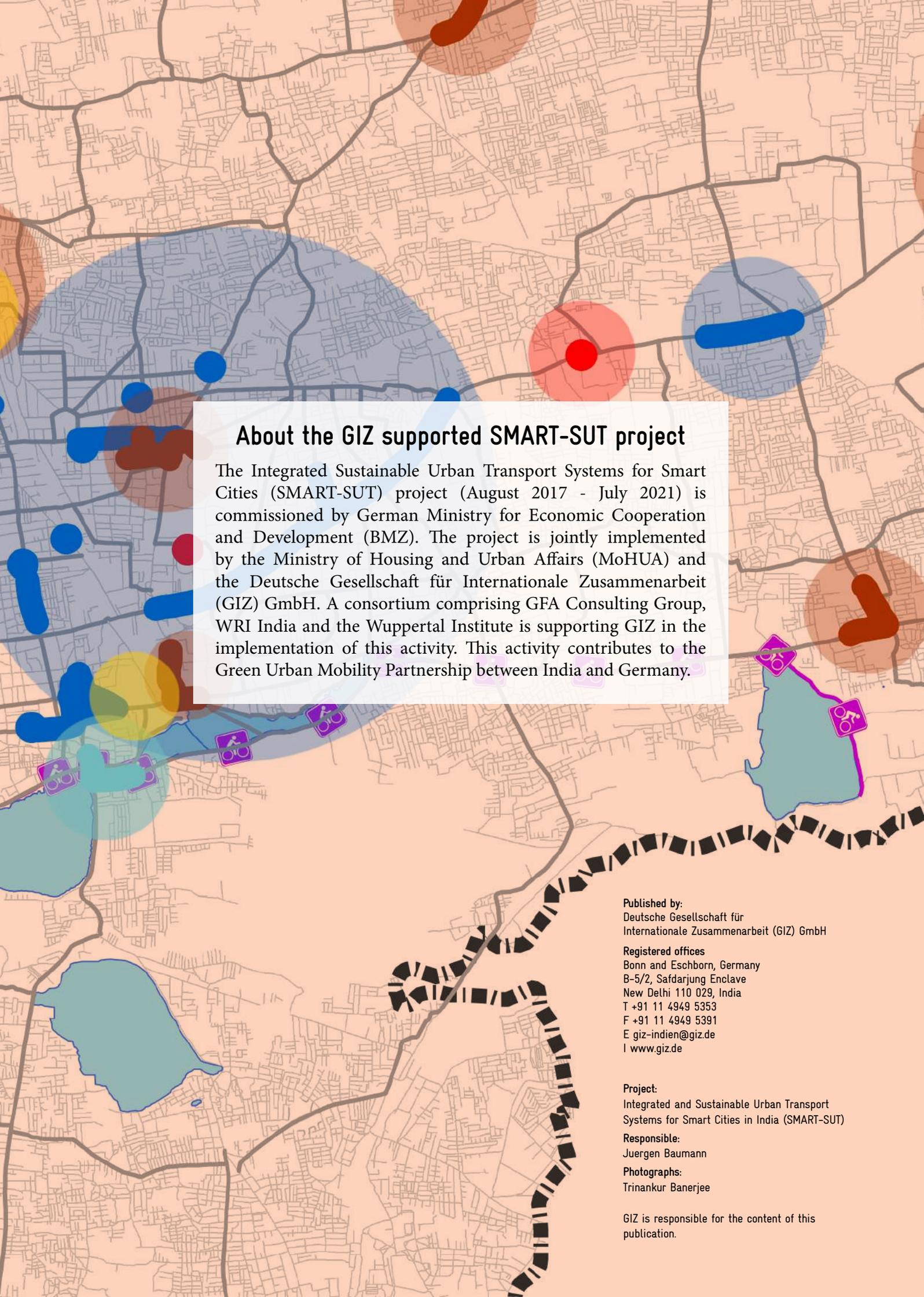
- Corporation Boundary
- Waterbodies
- Complete NMT Network
- Ecomobility corridor under smart city
- Measure 1 Complete streets (94 km)
- Measure 2 Shared streets (96 km)
- Measure 3 Bidirectional, segregated cycle tracks on one side of the road (17 km)
- Measure 4 On-street cycle lanes (45 km)

- Hotspots**
- Lakefront zone
 - Station area zone
 - Retail zone
 - Campus zone
 - Cultural zone



LIST OF HOTSPOTS

Typology with the relevant characteristic features	Location	Length of pedestrian priority roads (km)
<ul style="list-style-type: none"> ● RETAIL ZONE - Streets that have temporal markets - Streets that have active night markets - Streets with sufficient right of way to accommodate parking - Streets that are not used for loading and unloading 	<ul style="list-style-type: none"> - Town hall - Gandhipuram - DB Road - Opankarra street - Saibaba Colony Junction - Avinashi Road - Lakshmi Mills 	72
<ul style="list-style-type: none"> ● CAMPUS ZONE - Streets that abuts access points to institutions 	<ul style="list-style-type: none"> - Peelamedu - Tamil Nadu Agricultural University - Government College of Technology 	11
<ul style="list-style-type: none"> ● STATION ZONE - Streets that abut upon major terminals - Streets leading to PPUDO areas 	<ul style="list-style-type: none"> - Gandhipuram - Ukkadam - Singanallur - Town hall - Opankarra Street - Saibaba Colony Junction/ Metupalayam/ Kaundampalayam bus stand - Nehru Street - Sravanampatti 	48
<ul style="list-style-type: none"> ● RELIGIOUS/CULTURAL ZONE - Streets that abut upon major temples - Streets that offer complementary functions such as flower vending 	<ul style="list-style-type: none"> - Koniамman temple - Race Course Road - Saibaba temple (overlap with retail zone) 	10
<ul style="list-style-type: none"> ● LAKEFRONT ZONE - Streets or pathways abutting lake edges - Access roads leading to the lakes 	<ul style="list-style-type: none"> - Ukkadam 	5



About the GIZ supported SMART-SUT project

The Integrated Sustainable Urban Transport Systems for Smart Cities (SMART-SUT) project (August 2017 - July 2021) is commissioned by German Ministry for Economic Cooperation and Development (BMZ). The project is jointly implemented by the Ministry of Housing and Urban Affairs (MoHUA) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. A consortium comprising GFA Consulting Group, WRI India and the Wuppertal Institute is supporting GIZ in the implementation of this activity. This activity contributes to the Green Urban Mobility Partnership between India and Germany.

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn, Germany
B-5/2, Safdarjung Enclave
New Delhi 110 029, India
T +91 11 4949 5353
F +91 11 4949 5391
E giz-indien@giz.de
I www.giz.de

Project:
Integrated and Sustainable Urban Transport
Systems for Smart Cities in India (SMART-SUT)

Responsible:
Juergen Baumann

Photographs:
Trinankur Banerjee

GIZ is responsible for the content of this
publication.