MYSURU
City Fact Sheet

SUSTAINABLE CITIES
INTEGRATED APPROACH PILOT (SCIAP)

APRIL 2021

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Sustainable Cities: Integrated Approach Pilot

URBAN SUSTAINABILITY ASSESSMENT FRAMEWORK

City Fact Sheet - Mysuru

Disclaimer

Prepared for:

Ministry of Housing and Urban Affairs
Government of India
सत्यमेव जयते

Mysuru City Corporation

Project Donors:

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Prepared by:

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Date:
April 2021

About SCIAP and USAF

The Sustainable Cities Integrated Approach Pilot (SCIAP) project, funded by GEF-6, is being implemented by UNIDO and UN-Habitat, in partnership with the Ministry of Housing and Urban Affairs (MoHUA) of the Government of India in Bhopal, Guntur, Jaipur, Mysuru and Vijayawada. The main goal is to infuse sustainability strategies into urban planning and management at the city level and create an enabling climate for investments in green infrastructure that would reduce greenhouse gas emissions, improve service delivery and enhance the quality of living for all citizens, thereby building resilience and strengthening the governance capacity of the cities.

A major component of the project is to develop an Urban Sustainability Assessment Framework (USAF) for spatial planning in India which is designed as a decision support tool for municipal commissioners and urban practitioners to support sustainable and resilient urban planning and management of cities in India. Urban diagnostics based on USAF cover 12 sectors, namely, urban form-public space and safety, housing and property, water, sanitation, solid waste management, transportation, social facilities and services, environment and ecology, clean energy, disaster risk management, governance and data management and finance and economy. The performance of these sectors is measured using national and international benchmarks, further refined by consultations with the pilot cities. USAF 'spatializes' several indicators for granular planning and to identify inequalities in service delivery, resource allocation, accessibility of essential utilities, and recreational opportunities, among others, within a city.

Furthermore, giving emphasis to spatially-informed planning, USAF equips city managers to model area-based development strategies and assess their impact on improving sectoral performance against benchmarks. Area-based development strategies developed through USAF, when combined with a financing plan, lay the ground work for capital investment plans thereby providing a critical link between urban planning, finance and governance. It can also help decision-makers prioritize projects to effectively direct resources towards targeted areas for maximum impact and benefit.

About this Fact Sheet

This fact sheet showcases preliminary analysis that has emerged after applying the USAF to Mysuru It highlights how the city fares across twelve USAF sectors on its primary indicators, draws attention to where the city functions well and aspects that need attention as per the benchmarks of the USAF. For detailed strategic diagnosis for Mysuru, please refer to the City Profile and Diagnostic Report.

Please note that the data reported for the city is for the year 2018-19 & 2019-20 (data sourced from MCC SLB 2018-19 / notes on MCC development activities (2020) / Swachh Survekshan 2020/MCC Municipal Budgets / Global Human Settlement Layers (GHSL) from European Commission / OpenStreetMap / USGS (LandSAT Imagery)).

USAF SECTORS

01 PUBLIC SPACE, SAFETY AND URBAN FORM

02 HOUSING AND PROPERTY

03 WATER SUPPLY

04 SANITATION

05 SOLID WASTE MANAGEMENT

06 TRANSPORTATION

07 SOCIAL FACILITIES AND SERVICES

08 ENVIRONMENT AND ECOLOGY

09 CLEAN ENERGY

10 DISASTER RISK MANAGEMENT

11 GOVERNANCE AND DATA MANAGEMENT

12 FINANCE AND ECONOMY

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Framework Scoring

Each scoring range is based on benchmarks derived from national standards and linked to global standards wherever possible. For quantitative indicators, indicator value over and above the set benchmark is categorised as excellent performance. The USAF has evolved from an initial 3-point to a 7-point scoring gradient. The range of 3-point scale (low-medium-high) has been used to interpolate and expand to a 7-point scoring scale (very low to excellent performance). The division of scoring range for continuous variables (or indicators) into seven defined breaks is based on equal intervals between the threshold and benchmark set for each indicator. On the other hand, indicators which are discrete or qualitative in nature are bifurcated only into three classes (very low – medium – excellent performance) and binary questions (yes/no) are classified as either very low or excellent. Indicators assessed on a 7-point scale result in a performance score which is less coarse in nature and better represents the continuum, making it more reliable than a narrower 3-point scale. Expanding the mid-range performance (lower medium to upper medium) especially, captures the variation better for average performance city values.

For representation, the range of performance follows a spectral colour ramp and varies from two shades of red (very low - low) to two shades of green (high - excellent) with three shades of yellow in between (lower medium - medium - upper medium).

Very Low (0)	Low (1)	Lower Medium (2)	Medium (3)	Upper Medium (4)	High (5)	Excellent (6)

There are some indicators that are not included in the performance score of the city and are labelled as 'descriptive indicators' in the benchmark column. These indicators can either be quantitative (with specified formula to measure it) or qualitative (yes or no), but do not have a set benchmark for scoring. The information from these parameters along with few other benchmarked indicators would be helpful in formulating the profile of the city.

Indicators for which data is either currently awaited or is unavailable are denoted as '--' against the depicted indicator.

Descriptive Indicator	(- -) Data awaited/unavailable

The USAF serves primarily as a guide for orienting the priorities of a city and directing its resources to meet the desired vision and goals as outlined in its master plan. The conclusions of the framework thus point to the weak spots with respect to the city's sustainable development goals and efforts to build resilience. As part of SCIAP, following the City Profile and Diagnostic Report, a Sustainable City Strategy shall also be prepared which would serve as the spatial strategic plan for the city with key actions and interventions to achieve the its vision and goals.

MYSURU

Mysuru'with a population of 9.2 Lakhs is the third-largest city in the state of Karnataka in the foothills of Chamundi Hill. For nearly six centuries from 1399 to 1956, it served as the capital under the Wadiyar dynasty and continues to be the divisional headquarters. The Wadiyars were patrons of art, culture, and development which contributed significantly to the culture and economic growth of the city and earned it the sobriquet of 'cultural capital of Karnataka'.Mysuru palace is the second most visited place after the Taj Mahal, around 38 lakh domestic visitors and 50 thousand international tourists visited Mysuru in 2019 alone. Mysuru is well connected with other major cities like Bengaluru, Mangalore, and Coimbatore, and has access to international airports and major ports within a travel time of 3 to 4 hours.

9.2 Lakhs
POPULATION

103 PPH
POPULATION DENSITY

89.9 SqKm
AREA

LEGEND

- - - MUNICIPAL BOUNDARY
BUILT-UP AREA(1975)
BUILT-UP AREA INCREASE (1990)
BUILT-UP AREA INCREASE (2000)
BUILT-UP AREA INCREASE (2014)
WATER BODY
GREEN SPACES
HILLS
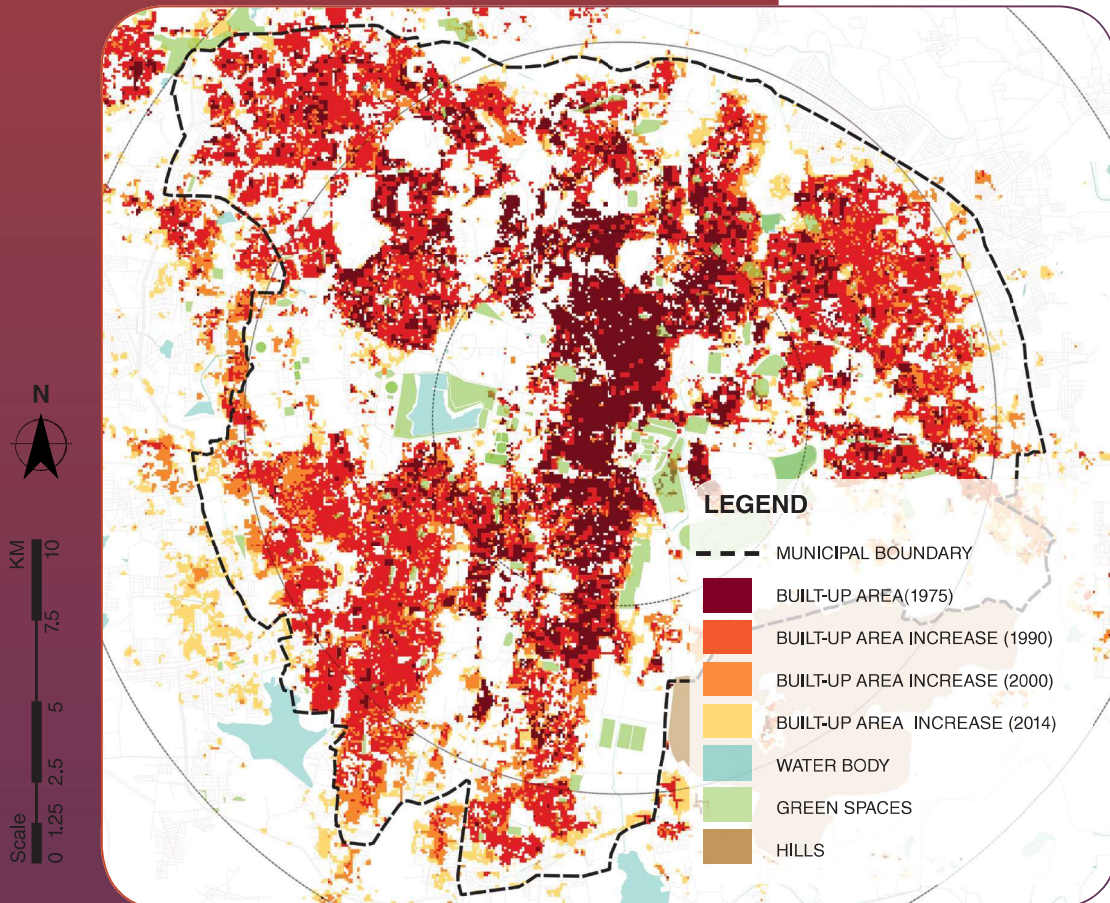
Figure 1.1: *Multi-temporal classification of built-up presence (1975-2014)*

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Mysuru has an area of 89.9sqkm and is subdivided into 65 wards. The city's growth rate between 2001 and 2011 was 13.63%. The average ward density in the city is 103 PPH and ranges from 13 PPH to 670 PPH per ward. The existing land use pattern of the city shows that the residential area (including the vacant land in the developed area) is 7049.81Ha. whereas the proposed residential area is 15735.06Ha which works out to be 53.81% of the developed area and an average density of100PPH. But lack of phasing in the planning process has led to large chunks of land being unlocked, resulting in low-density layouts in the suburbs and encouraging sprawl in the city. This in turn makes the provision of municipal services cost-ineffective.

The decadal growth rate of the population has slowed down between 1991 to 2001, and 2001 to 2011 and is expected to reduce further between 2011 and 2021.

LEGEND

- - - MUNICIPAL BOUNDARY

0-75 PPH

75-150 PPH

150-300 PPH

>300 PPH

N

KM

Scale 0 1.25 2.5 5 7.5 10
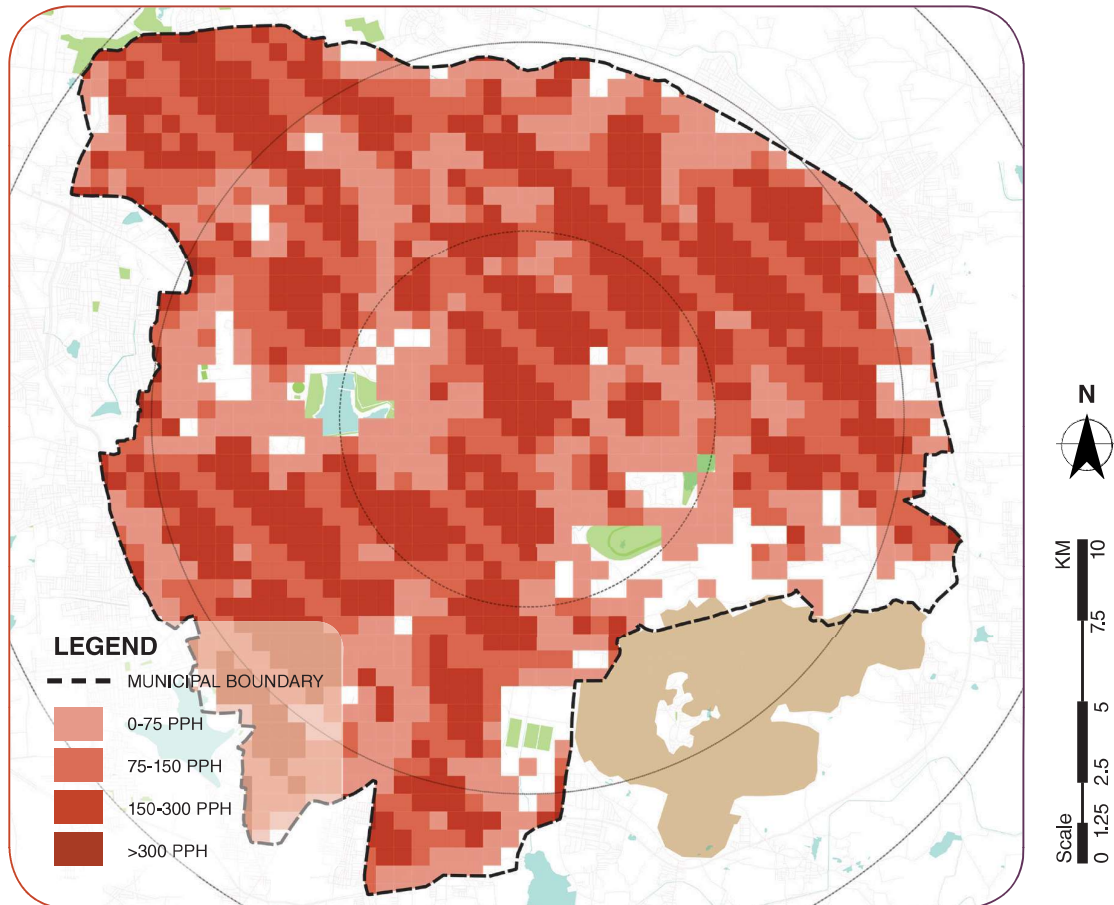
Figure 1.2: *Residential population density estimates (2015)*

01
PUBLIC SPACE, URBAN FORM & SAFETY

- - **sqm/capita**
accessible open space

90% population
has access to parks and
open spaces within a
walking distance of 500m

- -% roads
have streetlights

24% reduction
in built-up area per person
in last decade

92% reduction
in agriculture land in
comparison to the last
revision of master plan

The 123 sq km of agricultural
land changed to residential
has increased the layout
developments in all
directions.

The uncontrolled growth
leads to increased capital
and operation expenditure
on infrastructure, crippling
the corporation's financial
situation.

LEGEND

- - - MUNICIPAL BOUNDARY

PUBLIC AND OPEN SPACES

PUBLIC AND OPEN SPACES COVERAGE

FOREST AREA

WATER BODY

HILLS

Scale

KM

0   1.25   2.5   5
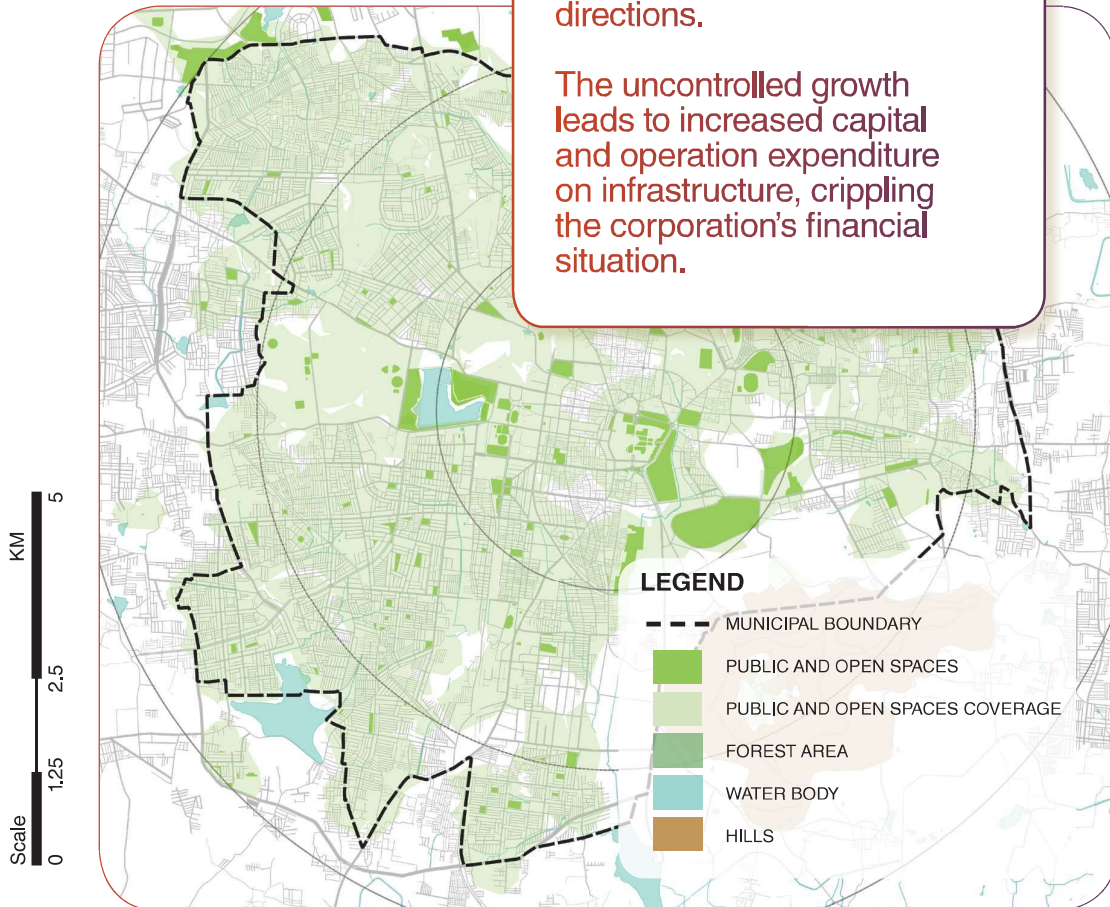
Figure 1.1: *Population Catchment Area of Public Parks and Open Spaces (500m distance)*

Data awaited/unavailable

Descriptive Indicator

Excellent (6)

High (5)

Upper Medium (4)

Medium (3)

Lower Medium (2)

Low (1)

Very Low (0)

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02 HOUSING AND PROPERTY

6% population
living in slums
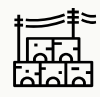
1% city area
falls under slums/
squatter settlements

Currently in Mysuru
16,268 households are
still living in slums or
informal settlements.

Data awaited/unavailable

Descriptive Indicator

Excellent (6)

High (5)

Upper Medium (4)

Medium (3)

Lower Medium (2)

Low (1)

Very Low (0)

Descriptive Indicator

-- Data awaited/unavailable

Excellent (6)

High (5)

Upper Medium (4)

Medium (3)

Lower Medium (2)

Low (1)

Very Low (0)

03
WATER SUPPLY

100% households have piped water supply connection

25% extent of non-revenue water

Conducted water resource assessment and management

97% water samples comply with national potable water quality standards

SCADA system is only available in the recent water-supply schemes but not available across the city, making it challenging to capture the Non-Revenue Water.

31% of the total city expenditure is spent on water supply and solid waste.

04
SANITATION

100% properties in ULB connected to sewerage network

100% households have access to toilet facilities

80% wastewater samples passed the specified secondary treatment standards from the total samples collected in a year

60% sewage treated before discharge to surface water bodies

5% recycled water received at the treatment plant recycled or reused after appropriate treatment for various purposes

Mysore with 16.11 sqkm of green & open spaces can strategically reuse the water in maintaining the green spaces.

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05 SOLID WASTE MANAGEMENT

99% dry waste
separated and classified for
recycling/material recovery

97% wet waste
collected is processed
in compost plant

2% total waste
disposed off in open dumps
/controlled dumps, water
bodies or is burnt

0 %
solid waste used for energy
recovery (incineration)

0%
legacy waste remediated
in the city

Cost recovery in solid
waste seems to be the
most daunting issue with
a recovery rate of 18%.

Mysore performs Excellent
in all aspects of waste
management and it has a
good potential to become
a zero waste city.

Source : Niranjan Bhaskar UN Habitat

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Data awaited/unavailable

Descriptive Indicator

Excellent (6)

High (5)

Upper Medium (4)

Medium (3)

Lower Medium (2)

Low (1)

Very Low (0)

06
TRANSPORTATION

94 % **population**
has access to public transportation within 500m

- - % **increase/decrese**
public transport ridership

20.81 **km/sqkm**
road density

0 % **shared vehicles**
operating on clean fuels

70% **road length**
have footpaths with width more than 1.2 m

0.94 **km cycle track**
per 1,00,000 population

On an average there are around 50,000 privately-owned vehicles getting registered every year within the city limits, but the number of clean fuel vehicles are less than 10.

N

Scale

KM

0   1.25   2.5   5
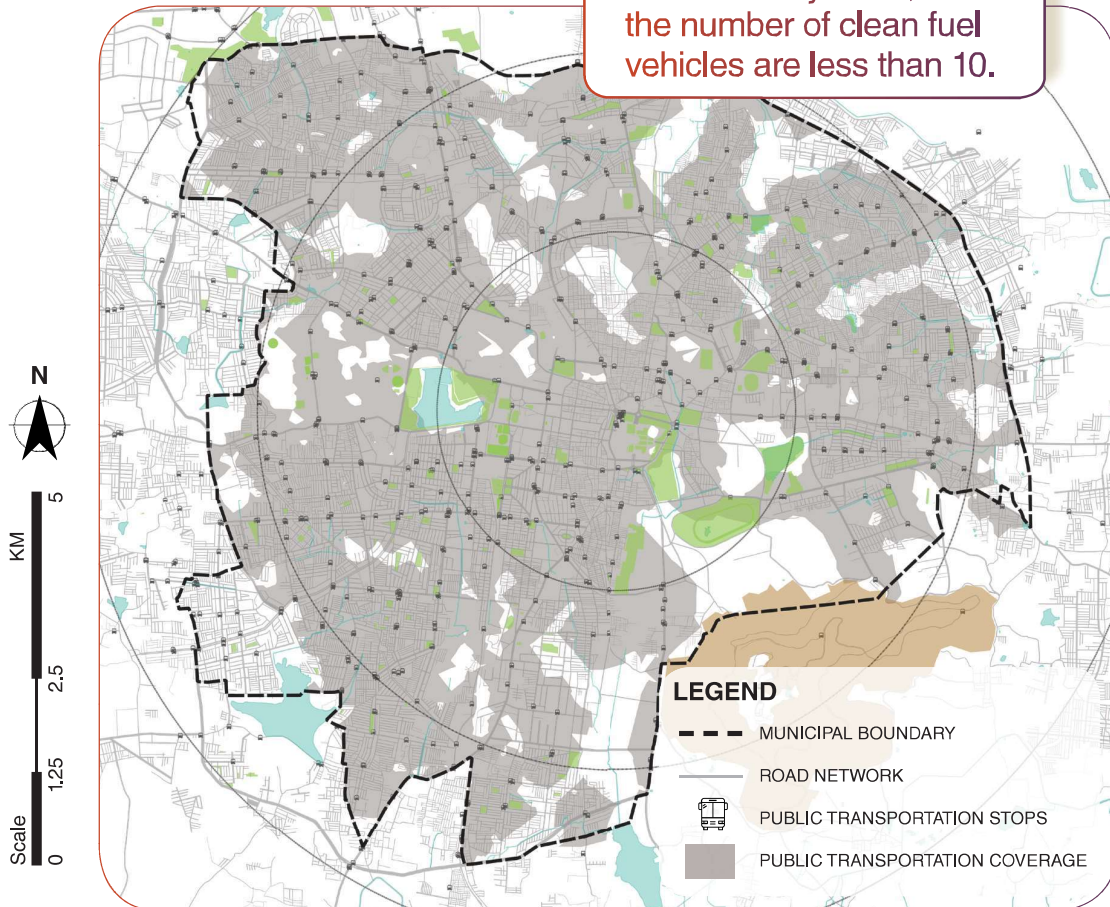
LEGEND

- - - MUNICIPAL BOUNDARY

——— ROAD NETWORK

PUBLIC TRANSPORTATION STOPS

PUBLIC TRANSPORTATION COVERAGE

Figure 1.2: *Population Catchment Area of Public Transportation Stops (500m distance)*

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Descriptive Indicator

07
SOCIAL FACILITIES AND SERVICES

70 % population
has access to healthcare services within 800m

69 % population
has access to primary and secondary schools (public/private) within 800m

85 %
female literacy rate

As UPH are concentrated in city core making it difficult to carryout. camps to take preventive measures and identify epidemics in the outskirts.

N

Scale
KM
0 1.25 2.5 5

LEGEND

- - - MUNICIPAL BOUNDARY

⊕ HEALTHCARE FACILITY

▨ HEALTHCARE FACILITIES COVERAGE
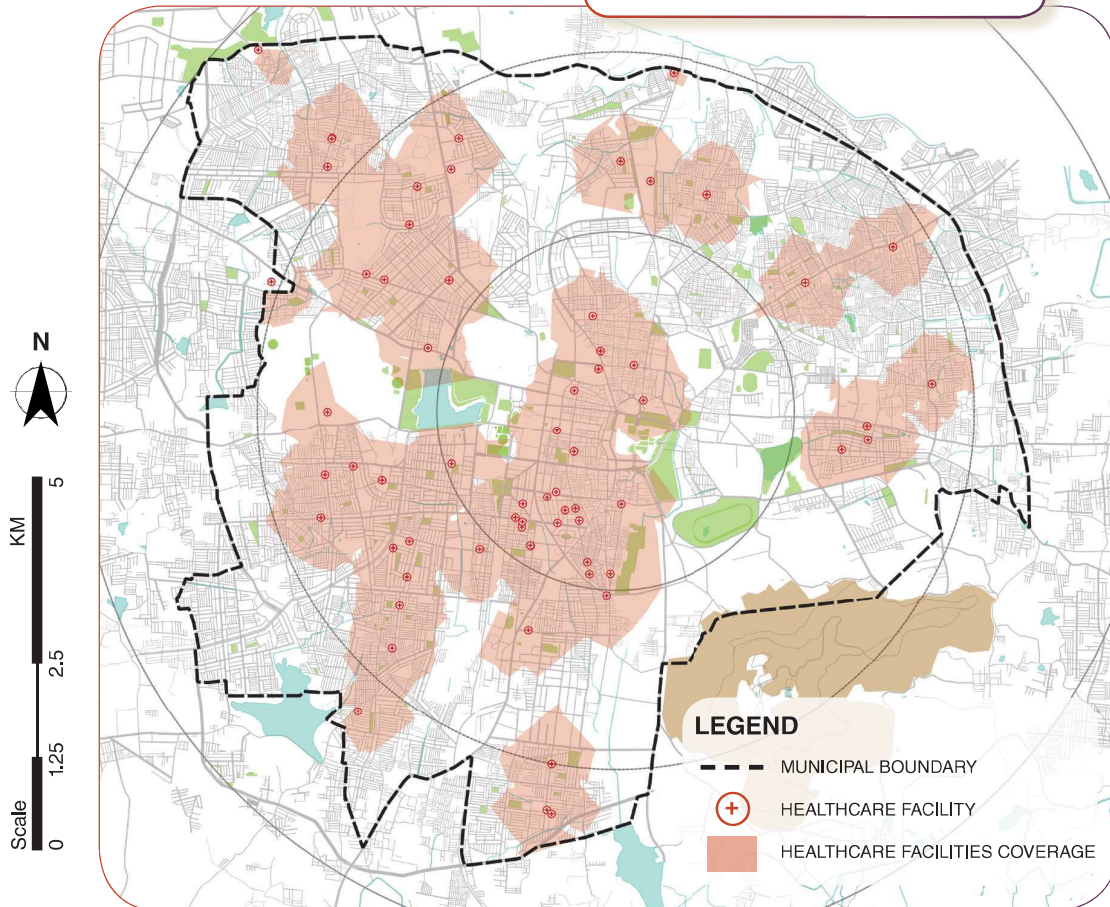
Figure 1.3: *Population Catchment Area of Healthcare Facilities (800m distance)*

Data awaited/unavailable

Excellent (6)

High (5)

Upper Medium (4)

Medium (3)

Lower Medium (2)

Low (1)

Very Low (0)

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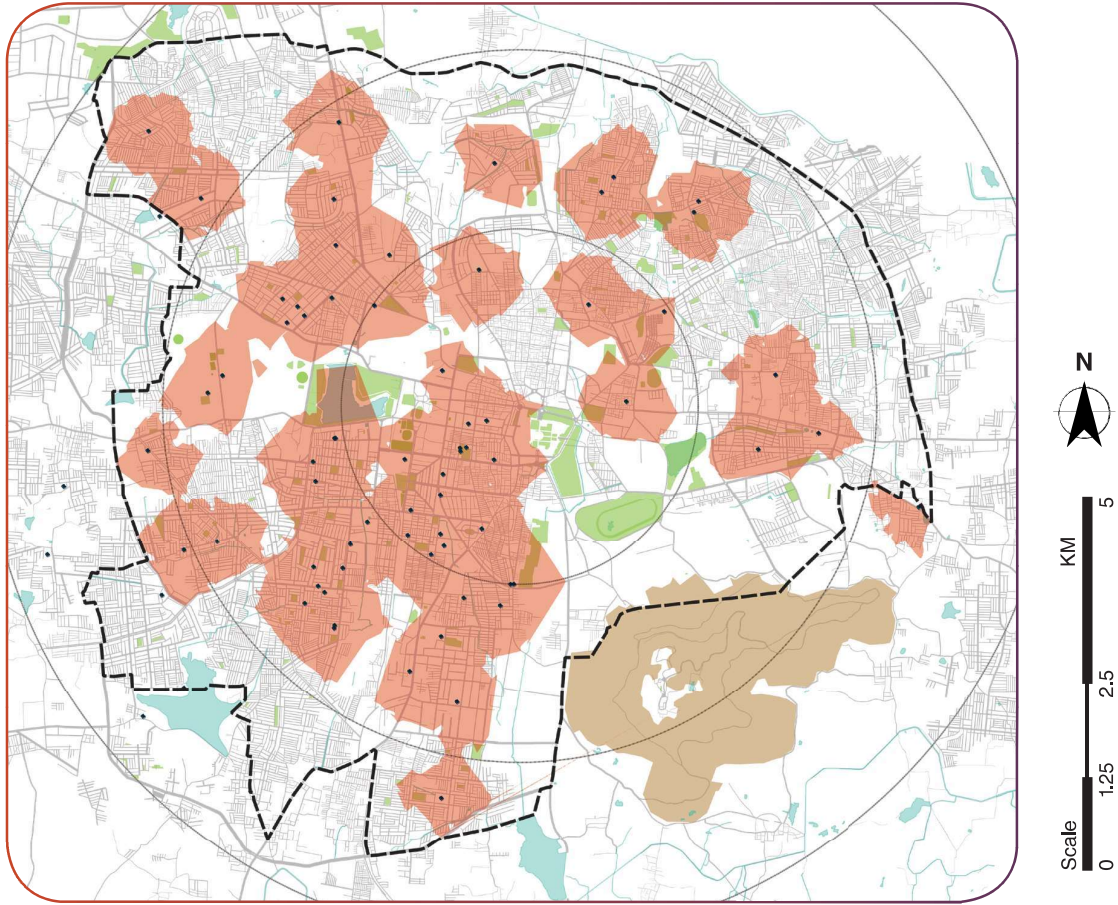
Figure 1.4: *Population Catchment Area of Primary and secondary schools (800m distance)*

Descriptive Indicator | Excellent (6) | High (5) | Upper Medium (4) | Medium (3) | Lower Medium (2) | Low (1) | Very Low (0) | Data awaited/unavailable

08
ENVIRONMENT AND ECOLOGY

No
Clean Air Action Plan and pollutants source identification

-- %
tree canopy cover

No
GHG emission monitoring system

2 incentives
(structural and financial) for green buildings implemented

No
actions for protection, conservation and management of urban biodiversity

15,56,146 $MtCO_2e$
annual (GHG) emissions

The total emissions (including CO_2, CH_4, and N_2O) added to 15,56,146 Mt CO2eq, which is the second lowest among the 5 pilot cities in comparison.

09
CLEAN ENERGY

-- % households
with authorized connection to LPG for cooking

-- % Population
have access to reneweble energy

38.4 %
of total electrical energy in the city derived from renewable sources

884.04 kWh /capita
energy use in a year

16 % streetlights
are energy efficient

The stationary energy sector/energy use emitted 8,29,106 Mt of CO_2 eq., accounting for 53% of the total GHG emissions.

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10 DISASTER RISK MANAGEMENT

No

Disaster Management Plan at city level

As city is not prone to the major disasters except for occasional urban flooding, it has not prioritized disaster risk management.

Urban flood mapping is an emerging priority for the city.

No

hazard vulnerability maps/ risk maps (at city level)

- - % households
at risk due to placement in areas of non-mitigable risk

- - % buildings
have access to emergency fire services within a distance of 4km

LEGEND

- - - MUNICIPAL BOUNDARY

——— ROAD NETWORK

🔥 FIRE STATION

▮ FIRE SERVICE COVERAGE

N

KM

Scale 0 1.25 2.5 5
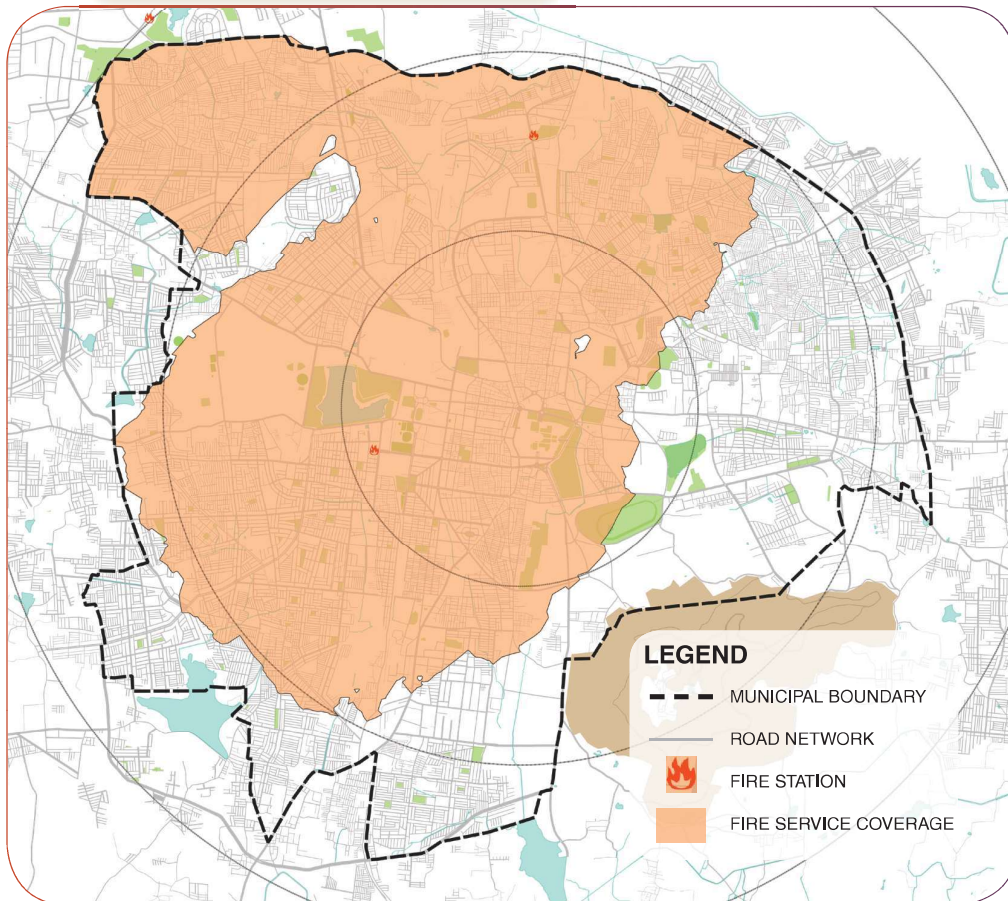
Figure 1.5: *Building Catchment Area of Fire Service Facilities (4km distance)*

Data awaited/unavailable

Descriptive Indicator

Excellent (6)

High (5)

Upper Medium (4)

Medium (3)

Lower Medium (2)

Low (1)

Very Low (0)

Vertical color scale (left margin):
- Data awaited/unavailable
- Descriptive Indicator
- Excellent (6)
- High (5)
- Upper Medium (4)
- Medium (3)
- Lower Medium (2)
- Low (1)
- Very Low (0)

11
GOVERNANCE AND DATA MANAGEMENT

15 functions
being implemented by ULB

2 services
managed through a command and control centre

0.15 planners
for every 14,000 population

Existence
of GIS-based master plan for the city

8 years
since the master plan was last updated

The Master Plans are outsourced to private consultants due to shortage of planner in MUDA and MCC, as it is outsourced the period revision is not done except for the public requests or project-based requirement for change in land use.

12
FINANCE AND ECONOMY

97%
property tax collected as a percentage of total property tax billed

23.64 %
Growth rate of GDP per capita (2015 to 2019)

'A'
Credit Rating

59% grants
received from central & state governments to total revenue

Mysuru has one of the highest tax collection efficiency rates in India, with its online tax reforms it can aim to achieve 100% collection.

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