



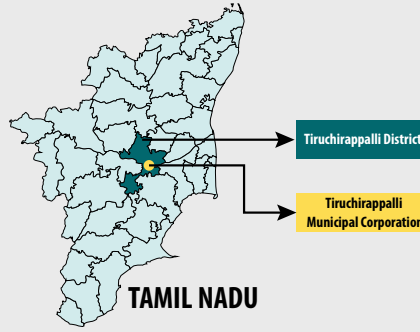
Schweizerische Eidgenossenschaft  
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Swiss Agency for Development  
and Cooperation SDC



**CapaCITIES**  
LOW CARBON • CLIMATE RESILIENT • CITY DEVELOPMENT

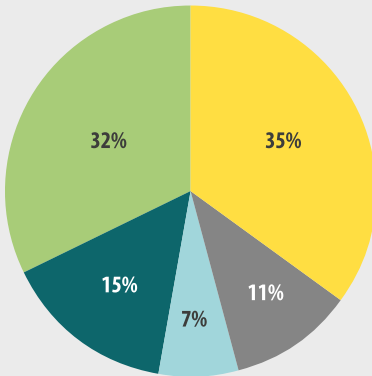
# Tiruchirappalli



<b>Area</b> 167.2 Sq.km	<b>Population</b> 1.05 Million
<b>Total Household</b> 270,308	<b>Climatic Condition</b> Hot & Dry

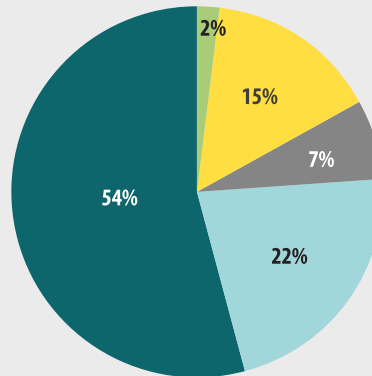
## GHG Emissions (2020-21)

### Community-wide Sectors



- Waste
- Transport
- Agriculture, forestry and fishing activities (i.e. mainly agriculture)
- Manufacturing Industry and Construction (i.e. Industrial sector)
- Commercial and Institutional Buildings/Facilities
- Residential Buildings

### Municipal Facilities



- Transport
- Street Lighting
- Water Sector
- Waste water treatment
- Buildings



**1.77**

Million Tonnes CO<sub>2</sub>e



**1.69**

Tonnes CO<sub>2</sub>e Per Capita

CapaCITIES

addressing

SUSTAINABLE  
DEVELOPMENT  
GOALS



# Simplified Climate Resilient City Action Plan

## Urban System Challenges



### Water

Dependent on Cauvery river & Ground Water. No metering of water supply



### Transport

Lack of traffic management and congestions leading to lower air quality



### Biodiversity

Significant reduction in green cover



### Storm Water

Lack of covered pucca drains, urban flooding issues



### Sewage

Old sewerage network and lack of treatment capacity

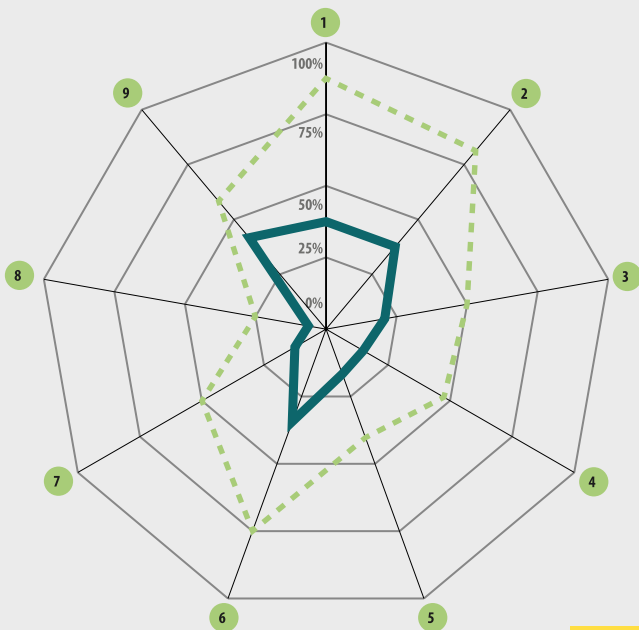


### Energy

Lack of EE appliances and systems for municipal services



## Performance Assessment



- 1) Procurement & Finance
- 2) City Planning
- 3) Cooperation & Communication
- 4) Buildings
- 5) Mobility
- 6) Waste
- 7) Water & Sewage
- 8) Biodiversity
- 9) Energy / Energy Infrastructure

— Baseline  
- - - Target

AREA	BASELINE		TARGET		
	GRADE	RESULT	GRADE	TARGET	
1	Procurement and Finance	1.50	38%	3.50	88%
2	City Planning	1.75	44%	3.50	88%
3	Cooperation and Communication	1.67	42%	2.67	67%
4	Buildings	0.80	20%	2.40	60%
5	Mobility	0.94	24%	1.94	49%
6	Waste	1.50	38%	4.00	100%
7	Water and Sewage	0.75	19%	2.42	60%
8	Biodiversity	0.25	6%	2.00	50%
9	Energy / Energy-Infrastructure	1.83	46%	2.67	67%
<b>Overall</b>		<b>1.16</b>	<b>29%</b>	<b>3.34</b>	<b>84%</b>

# Example of Implemented Climate Actions (2019-2022)

## Renewable Energy and Energy Efficiency in Municipal Services

### 2.4 MWp Solar PV plant for Streetlights



#### GHG Mitigation per year

3,286 tCO<sub>2</sub>e



#### Mode of Implementation

Municipal Budget

### 831 kWp Rooftop Solar PV for Municipal Buildings



#### GHG Mitigation per year

1138 tCO<sub>2</sub>e



#### Mode of Implementation

Municipal Budget

### Conversion of conventional streetlights to LED lights



#### GHG Mitigation per year

4,698 tCO<sub>2</sub>e



#### Mode of Implementation

Municipal Budget

### 7.5 MWp Solar PV proposed at Panjapur



#### GHG Mitigation per year

10,268 tCO<sub>2</sub>e



#### Mode of Implementation

Smart City Fund & Municipal Budget

## Climate Friendly Solid Waste Management

### 36 Micro Composting Centers or 180 TPD cumulative capacity

### 20 TPD Bio Methanation Plant



#### GHG Mitigation per year

92,154 tCO<sub>2</sub>e



#### Adaptation Benefits

Improved solid waste management in the city; reduced waste dumping and related health hazards



#### Mode of Implementation

Municipal Budget & Swatch Bharat Mission

## Biodiversity

### Development of Urban Forests in 18 locations (Approx. 0.1 million trees)



#### Adaptation Benefits

Acts as a carbon sinks, increase in green cover, supports in mitigating air pollution



#### Mode of Implementation

Municipal Budget

## Green Building

### Construction of Green Buildings - Library and Knowledge Center



#### GHG Mitigation per year

90 tCO<sub>2</sub>e



#### Mode of Implementation

Technical support under CapaCITIES & Implementation under Smart City Fund



#### Adaptation Benefits

Reduction in water requirement, heat stress, rainwater harvesting, effective wastewater & solid waste management



## Air Quality

### Installation of CAAQMS at 3 locations



#### Adaptation Benefits

Supports for decision making and prioritization of air polluting areas for related interventions



#### Mode of Implementation

15th Finance Commission (NCAP)

## Support Under CapaCITIES Phase II



#### Climate Action Planning & Net Zero Targets

- Preparation of Comprehensive Climate Resilient City Action Plan



#### Quick win/ Co-Financing Projects

- Watershed assessment and implementation of ground water recharge/ stormwater infiltration measures



#### Technical Assistance Projects

- Technical Support for developing green buildings (2 locations)
- Preparation of Green Building Guidelines
- Carbon sequestration impact assessment Urban Forestry by Miyawaki Method



#### Other Support

- CSCAF by MoHUA (City has received 2 star rating)
- Urban Outcome Framework by MoHUA
- Swachhatam – (Swachh Bharat Mission – Urban 2.0)

### Actions proposed in Simplified Climate Action Plan contribute to India's Nationally Determined Contribution (NDC) by

enabling a 'Lifestyle for Environment', ensuring a climate friendly and cleaner path, contributing to a reduction in emissions intensity of GDP, enhancing renewable energy capacity, enhancing investments in key vulnerable sectors such as water resources, mobilizing domestic and international funds for climate action and building capacities and frameworks for quick diffusion of cutting edge climate technology in India.



#### Implementing partners



#### Knowledge Partner



For more information, please contact

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