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Local Governments for Sustainability
SOUTH ASIA

Investing in **Climate Resilient Cities**

State Level Project Pipelines
Tamil Nadu



Acknowledgements and Disclaimer

In Appreciation:

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About this Report

This report presents a state-level climate project pipeline for Tamil Nadu, intended to support the state government, cities and financing partners in moving local climate priorities into implementation. It is aggregated from the Net-Zero Climate Resilient City Action Plans of three Tamil Nadu cities: Coimbatore, Tiruchirappalli and Tirunelveli. They were prepared under the "Capacity Building for Low-carbon and Climate Resilient City Development in India (CapaCITIES)" project, funded by the Swiss Agency for Development and Cooperation (SDC), India.

This state climate project pipeline report builds on the leadership and commitment of the Government of Tamil Nadu and the Coimbatore, Tiruchirappalli and Tirunelveli City Municipal Corporations, and on the contributions of the government departments, technical experts, academia and community representatives who helped shape the Net-Zero Climate Resilient City Action Plans.

Year of Publishing: *2026*





Message from ICLEI South Asia

The Climate Investment Imperative



Emani Kumar
Deputy Secretary General, ICLEI &
Executive Director, ICLEI South Asia

India's progress on its climate goals will be driven by its cities, where most new infrastructure will be built over the coming decades, and where heat, flooding and water stress are already hitting hardest. Tamil Nadu is well placed to lead this shift. In 2022, it became the first state to launch its own Climate Change Mission and has committed to reaching carbon neutrality well ahead of India's 2070 net-zero target. With more than half its people now living in urban areas, and much of its industry and services concentrated there, Tamil Nadu's climate ambition will be realised first and foremost in its cities.

Coimbatore, Tiruchirappalli and Tirunelveli have taken the first step by preparing Net-Zero Climate Resilient City Action Plans using ICLEI's Net-Zero ClimateResilientCITIES methodology. This report brings their projects together into a state-level pipeline of INR 88,501 crore across eight sectors. These projects could cut greenhouse gas (GHG) emissions by about 19.8 million tCO_2e a year by 2070 while delivering improved resilience to extreme heat, flooding and water stress to 39 lakh residents in the three cities.

Total climate project pipeline investment: ₹88,501 crore in eight sectors by 2070
Three cities: Coimbatore, Tiruchirappalli and Tirunelveli

The pipeline gives the state a consolidated view of what its cities need, in which sectors and by when. With it, departments can prioritise projects against the goals of the Tamil Nadu State Action Plan on Climate Change 2.0, undertaken necessary feasibility studies, develop projects, and match them to budgets, central missions and the Urban Challenge Fund. They can also bundle common projects across cities into state-wide programmes, and offer financing partners a credible portfolio of investment-ready opportunities. I urge the state and its cities to use this pipeline to move together from plans to projects, and from projects to results.

ICLEI South Asia extends its sincere gratitude to the Government of Tamil Nadu, the Coimbatore City Municipal Corporation, Tiruchirappalli City Corporation and Tirunelveli City Municipal Corporation, partners, and all stakeholders who supported and shaped these plans. We are committed to working with the Government of Tamil Nadu and its cities, alongside our partners, to take this pipeline forward into prepared, financed and implemented projects for a climate-resilient Tamil Nadu and a Viksit Bharat.

With appreciation and a shared commitment towards advancing climate resilient cities!

Abbreviations

AC	Air conditioner
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
AQI	Air Quality Index
BAU	Business-as Usual
BLDC	Brushless Direct Current
C&D	Construction and Demolition
CHC	Community Health Centre
CNG	Compressed Natural Gas
CRC	ClimateResilientCities
DeWATS	Decentralised Wastewater Treatment Systems
DI	Ductile Iron
ECSBC	Energy Conservation and Sustainable Building Code
ECSBC-R	Energy Conservation and Sustainable Building Code – Residential
E-Bus	Electric Bus
EE	Energy Efficiency / Energy-Efficient
EV	Electric Vehicles
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GOBARdhan	Galvanizing Organic Bio-Agro Resources Dhan
GW	Gigawatt
HVAC	Heating, Ventilation and Air-conditioning
IEC	Information, Education and Communication
INR / ₹	Indian Rupee
IT	Information Technology
km	Kilometre
LBSAP	Local Biodiversity Strategy and Action Plan
LED	Light-Emitting Diode
LPG	Liquefied petroleum gas
MISHTI	Mangrove Initiative for Shoreline Habitats & Tangible Incomes
MLD	Million Litres per Day
ML	Million Liters
MRF	Material Recovery Facility
MT	Metric Tonnes
MW	Megawatt
NDC	Nationally Determined Contribution
NMT	Non-motorised transport
NRW	Non-Revenue Water
PAT	Perform, Achieve and Trade
PM	Particulate matter
PM E-DRIVE	Prime Minister Electric Drive Revolution in Innovative Vehicle Enhancement
PNG	Piped Natural Gas
PUC	Pollution under control
PV	Photovoltaic
RDF	Refuse-derived fuel
RE	Renewable energy
SAPCC	State Action Plan on Climate Change
SATAT	Sustainable Alternative Towards Affordable Transportation
SBM-U	Swachh Bharat Mission – Urban
SCADA	Supervisory control and data acquisition
SDG	Sustainable Development Goal
SOP	Standard operating procedure
sq. km / sq. m	Square kilometre / square metre
STP	Sewage treatment plant
SWM	Solid waste management
tCO2e	Tonnes of carbon dioxide equivalent
TPD	Tonnes per day
UHWC	Urban Health and Wellness Centre
USD	United States Dollar



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01 Setting the Context

Indian cities are the engines of the Viksit Bharat 2047 vision – and are on the front line of rising heat, floods and water stress. Building resilience and low-carbon infrastructure into today's urban investments is the way to get it right the first time

Why Cities Matter

600 MILLION
people likely to live in Indian cities by 2036

75%
of GDP expected to come from cities by 2036

44%
of India's GHG emissions come from urban areas

USD2.4 TRILLION+
urban climate investment needed by 2050

1.1 Climate Resilient Cities for a Viksit Bharat

India has set forth an ambitious **Viksit Bharat** vision of becoming a developed economy by **2047**. At the same time, India has committed to achieving **net-zero greenhouse gas (GHG) emissions by 2070**, thereby anchoring its development in a climate-conscious and sustainable pathway.

Cities serve as the country's economic and innovation powerhouses and will play a critical role in realising the vision of Viksit Bharat 2047. With 600 million people likely to live in urban areas by 2036, their contribution to the country's GDP is expected to rise from 63% currently to 75% by 2036[1]**.** This rapid urbanisation will generate significant demand for housing, infrastructure and basic services, while increasing exposure to climate and disaster risks.

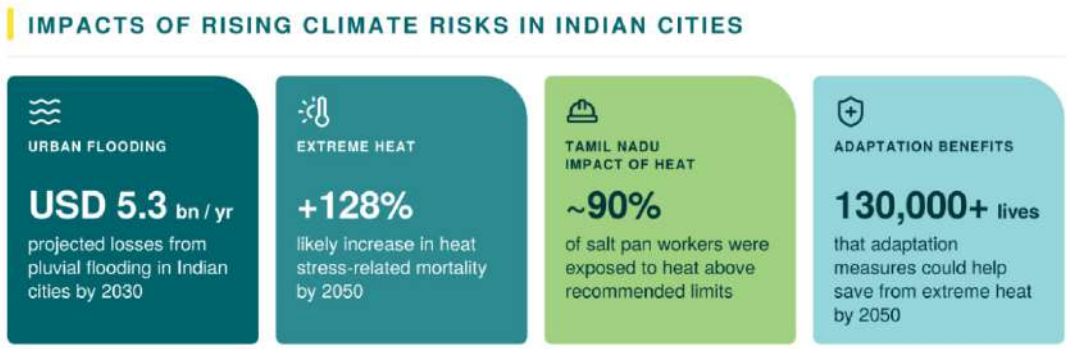
Rising climate risks in cities

Climate change is already straining urban systems, impairing service delivery and risking the health of populations. Indian cities are experiencing more frequent and intense heat, flooding, water stress and other climate-related hazards, with impacts spanning across health, livelihoods, infrastructure and economic productivity. For example, losses due to pluvial flooding in Indian cities were estimated to reach USD 5.3 billion per year by 2030, while heat stress-related mortality is likely to increase by 128% by 2050[2]. These impacts are particularly significant for vulnerable populations, including low-income households, informal and outdoor workers, elderly, children and women. For example, a study of 352 salt pan workers in Tamil Nadu found that nearly 90% were exposed to heat above recommended limits, and about 7% showed signs of reduced kidney function[3].

Investing in climate resilience can significantly reduce these risks and losses. The World Bank estimates that climate adaptation measures could mitigate annual urban flood-related losses of approximately USD 5 billion by 2030 and help prevent more than 130,000 deaths from extreme heat by 2050[2] . These findings demonstrate that climate resilience is not only an environmental priority, but should become an essential component of urban development, public health and infrastructure planning.

1 World Bank: A roadmap to shaping India's urban future, 2025
2 World Bank: Towards Resilient and Prosperous cities in India, 2025
3 Venugopal, V. et al., Sri Ramachandra Institute of Higher Education and Research, Kidney International Reports (2023)





India's climate ambition and role of cities

India has matched this challenge with an ambitious climate vision and action. The 2070 net-zero commitment is backed by firm near-term targets. India achieved the target of 50% non-fossil-based installed power capacity by 2030 five years early. India's **Nationally Determined Contribution (NDC) for 2031-2035** has ramped up its targets to a 47% reduction in emissions intensity of GDP from 2005 levels and 60% of power capacity from non-fossil sources by 2035[4]. These goals dovetail with the Viksit Bharat 2047 vision and are being delivered through national policies and programmes on renewable energy (RE), high-efficiency buildings, electric mobility, water security, waste management, clean air, urban greening, and disaster resilience, as shown in Figure 1. **Atmanirbhar Bharat** complements this vision by building the domestic manufacturing base for solar modules, batteries, electric vehicles and green hydrogen.

Cities are central to delivering this ambition. Urban areas account for about 44% of India's GHG emissions[5] and will house much of the infrastructure that will shape the country's emissions and risk profiles for the decades to come. Climate action in cities also leads to wider benefits such as cleaner air, reliable water, efficient transport, cooler homes, better health, new green jobs and improved quality of life, especially for low-income groups. It supports progress towards the Sustainable Development Goals (SDGs) on good health (SDG 3), clean water (SDG 6), clean energy (SDG 7), decent work (SDG 8), sustainable cities (SDG 11) and climate action (SDG 13).



Figure 1: India's climate commitments and key sectoral policies[6]

4 Government of India: India's NDC 2031-2035, April 2026
5 WWF India: Background paper on Cities and Climate Change: Indian context
6 Compiled by authors based on Government of India, NDC 2031–2035 (2026); NITI Aayog, Scenarios Towards Viksit Bharat and Net Zero (2026); and MoHUA, MNRE, MoEFCC and PIB sources



1.2 The Urban Climate Investment Opportunity

The scale of investment required to address these challenges is substantial. India will require more than **USD 2.4 trillion in investment by 2050** to provide climate-resilient and low-carbon urban infrastructure and services under a conservative urbanisation scenario, with estimates reaching **USD 2.8 trillion** in a moderate urbanisation scenario[2]. These investment requirements far exceed municipal financing capacities.

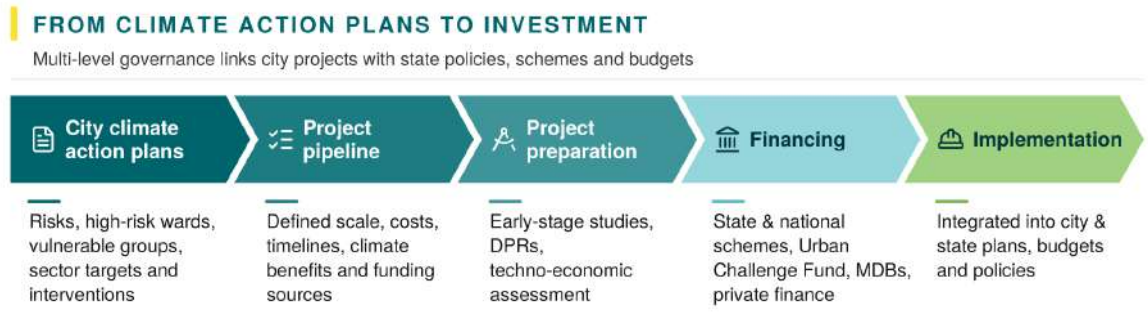
With over 50% of the urban infrastructure required for 2050 yet to be built[2], India has a strategic opportunity to get it right the first time. Embedding climate resilience, clean energy, and resource efficiency into new infrastructure and services from the outset can set cities on a safer, future-ready and climate-sensitive development pathway. At the same time, retrofitting and upgrading existing assets is essential to manage the climate risks cities already face and to meet growing service demand.



1.3 Moving from Climate Action Plans to Project Pipelines

Realising this opportunity would require states and cities to translate climate priorities into implementable investments. City-scale climate action plans provide a strong foundation by identifying climate risks, high-risk wards and vulnerable communities, as well as sectoral interventions and targets. They enable Urban Local Bodies to integrate climate-resilient interventions into city planning, budgeting and management.

State and city governments need support to translate these climate interventions into capital investment projects, including the preparation of a pipeline of viable projects, supported by climate benefits and financing strategies. With over 75% of urban infrastructure financing coming from central and state governments and only 15% funded by urban local bodies through own surplus revenues[7], city project pipelines need to be linked to state level climate and urban development priorities and financing mechanisms to drive at-scale implementation.



7 World Bank (2022), Financing India's Urban Infrastructure Needs: Constraints to Commercial Financing and Prospects for Policy Action; see press release, 14 November 2022.

02 Tamil Nadu and the Climate Project Pipelines

India's second-largest state economy and the first state to launch its own Climate Change Mission, Tamil Nadu is building climate action into its growth. This pipeline brings together projects from the Net-Zero Climate Resilient City Action Plans of Coimbatore, Tiruchirappalli and Tirunelveli – projects that could make 39.2 lakh residents more resilient to climate hazards such as heat stress and urban flooding.

The State at a Glance

7.7 CRORE
people, 53.7% of them in urban areas (2022-23)

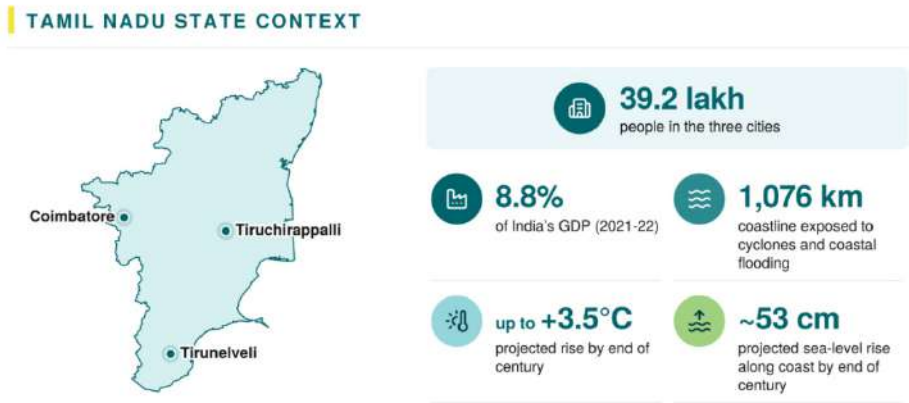
₹88,501 CRORE
estimated pipeline investment across eight sectors by 2070

19.77 $MTCO_2E$
Cumulative annual GHG emission reduction potential from 3 cities, by the 2070 horizon year

2
key climate hazards across the three cities: heat stress and urban flooding

2.1 Tamil Nadu State Context

Tamil Nadu is India's second-largest state economy, contributing about 8.8% of national GDP (2021-22). It is home to an estimated 7.7 crore people (2022-23), about 6% of India's population, more than half of whom (53.7%) live in urban areas, up from 48.4% in 2011[8].An industrial and export powerhouse, the state is a hub for food processing, textiles, leather, machinery, automobiles, chemicals and electronics, and ranked first in NITI Aayog's Export Preparedness Index 2022[9]. The three cities covered in this report – Coimbatore, Tiruchirappalli and Tirunelveli – are home to about 39.2 lakh people.



Climate risks and the state's response

Tamil Nadu, at the southern tip of the Indian subcontinent, is a coastal state bounded by the sea to the east and south and by the Western and Eastern Ghats to the west and north. The Western Ghats block much of the rain-bearing southwest monsoon, making Tamil Nadu a water-scarce state that depends heavily on the northeast monsoon from October to December and is therefore sensitive to monsoon failures and changing climate patterns. With a coastline of about 1,076 km, the state is also exposed to storms and cyclones, and historical evidence suggests a high probability of an increase in the frequency and intensity of climate-related disasters.[10]

8 NITI Aayog (2025), Macro and Fiscal Landscape of the State of Tamil Nadu; urbanisation in 2011 from Census of India 2011.
9 NITI Aayog, Export Preparedness Index 2022; see Maritime Gateway, "Tamil Nadu tops NITI's Export Preparedness Index 2022".
10 Tirunelveli Net-zero Climate Resilient City Action Plan 2070 (2024)



The Tamil Nadu State Action Plan on Climate Change highlights the state's vulnerability to rising temperatures, unpredictable rainfall, cyclones and rising sea levels, and the onset of the southwest monsoon has shifted earlier, bringing fewer rainy days but more heavy-rainfall events. Rainfall is also becoming more uneven across the state: annual rainfall increased by 8.5% in the Cauvery basin and 4.4% north of it over the last century, while basins south of the Cauvery saw a 9.8% decline[11]. Studies project a temperature rise of up to 3.5°C and a sea-level rise of about 53 cm along the coast by the end of the century[12]. Rapid urbanisation, together with more frequent heatwaves, intense rainfall and water stress, is increasing the exposure and vulnerability of the state's cities.

The three cities covered in this report reflect these trends. All three are vulnerable to urban heat and urban flooding; Tiruchirappalli's rainfall swung from a deficit of 655 mm in 2002 to a surplus of 1,121 mm in 2011[13], and Tirunelveli has recorded more rainy days despite a slight decline in decadal average rainfall[14]. Rapid urbanisation, together with more frequent heatwaves, intense rainfall and water stress, is increasing the exposure and vulnerability of the state's cities.

Tamil Nadu has established a strong, unified institutional framework for environmental sustainability and climate action. In 2022, it became the first state to launch its own Climate Change Mission, which guides the state towards a low-carbon, climate-resilient future under the 13 goals of the Tamil Nadu State Action Plan on Climate Change 2.0. The Tamil Nadu Green Climate Company (TNGCC) coordinates four flagship missions: the Tamil Nadu Climate Change Mission, the Green Tamil Nadu Mission, the Tamil Nadu Wetlands Mission and the Tamil Nadu Coastal Restoration Mission[15]. Its key mandates include restoring 100 wetlands, restoring more than 10,000 hectares of coastal ecosystems and training several climate officers through 38 district climate missions. A Governing Council on Climate Change chaired by the Chief Minister provides strategic direction, and 38 district climate change missions, led by district collectors, take climate action to the local level.

The Green Tamil Nadu Mission aims to raise forest and tree cover to 33% of the state's area by 2031, and the state has 20 Ramsar sites, the highest of any Indian state[16]. Sectoral policies such as the Tamil Nadu State Solar Policy 2019, Tamil Nadu Electric Vehicle Policy 2023 support the transition to cleaner energy and mobility while the Tamil Nadu Urban Greening Policy 2026 is designed to make cities greener and cooler. The state has also committed to reaching carbon neutrality well ahead of India's 2070 net-zero target. Building on these state-level efforts, Coimbatore, Tiruchirappalli and Tirunelveli have prepared Net-zero Climate Resilient City Action Plans to drive climate action locally.

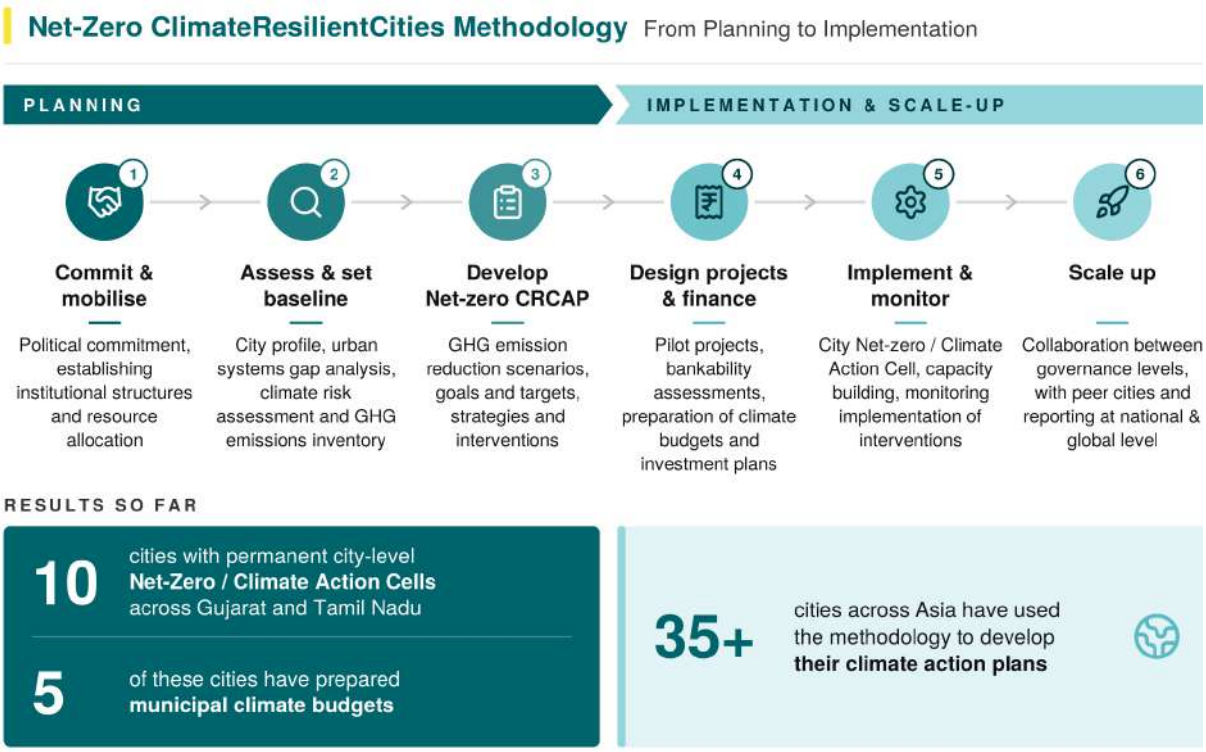
2.2 About this State-level Climate Project Pipeline for Tamil Nadu

This report consolidates a state-level climate project pipeline based on the climate projects **collated from the Net-Zero Climate Resilient City Action Plans of three cities of Tamil Nadu: Coimbatore, Tiruchirappalli and Tirunelveli,** prepared using ICLEI South Asia's Net-Zero ClimateResilientCities Methodology and aligned with local priorities

ICLEI's Net-Zero CRC methodology is a nine-step process designed to support cities in preparing, implementing and monitoring city-scale Climate Action Plans. It includes tools to guide baseline development (climate risk assessment, GHG inventories), conduct an urban systems gap analysis, identify and prioritise climate resilience strategies, targets and interventions, develop bankable project proposals, identify and implement pilot projects, institutionalise climate governance and financing mechanisms and develop and implement a monitoring, reporting, and verification (MRV) system to track progress.

11 Tamil Nadu State Action Plan on Climate Change.
12 Centre for Climate Change and Adaptation Research, Anna University, reported in India Environment Portal.
13 Tiruchirappalli City Corporation, Trichy Climate Resilient City Action Plan – Towards a Net Zero Future, section 5.2 (Table 5.3, rainfall trend, 1901–2023)
14 Tirunelveli Net-zero Climate Resilient City Action Plan 2070 – Section 5.2 (rainfall trend, 1969–2022).
15 Tamil Nadu Green Climate Company, Tamil Nadu Climate Change Mission and Tamil Nadu's Climate Leadership in Action.
16 Down To Earth (2022), op. cit. (33% green cover target); Tamil Nadu Green Climate Company, Tamil Nadu's Climate Leadership in Action (20 Ramsar sites)





Moreover, the Net-Zero CRC methodology provides cities with a structured implementation pathway to translate climate action plans into on-ground projects and results. It guides cities in identifying pilot projects to test new technologies and approaches, and in building a pipeline of bankable, investment-ready projects backed by techno-economic assessments. It supports embedding of climate action into routine municipal governance through guidance on establishment of enabling governance structures, break-down of climate action plans into annual action plans, and integration of climate action into the annual budgetary process through municipal climate budgeting.

Implementation is anchored in permanent Net-Zero or Climate Action Cells, with defined roles and responsibilities to steer and oversee coordination, annual planning, implementation of climate solutions and development of projects for scale-up. The CRC methodology's implementation guidance has already been put into practice by Indian cities. Permanent Net-Zero and Climate Action Cells have been set up in six cities (Coimbatore, Tiruchirappalli and Tirunelveli in Tamil Nadu, and Ahmedabad, Rajkot and Vadodara in Gujarat) to drive implementation and monitoring, with climate budgets prepared in five of these cities. In Tamil Nadu, these city cells can work alongside the district climate change missions and climate cells set up under the Tamil Nadu Climate Change Mission.

What the climate project pipeline covers

This report draws on three city-scale Climate Action Plans in Tamil Nadu that each include a pipeline of climate projects supported by quantified mitigation and resilience benefits, cost estimates and financing strategies, and monitoring indicators. All three plans share a common target year of 2070, in line with India's net-zero commitment, with intermediate milestones for 2030 and 2050. The consolidated pipeline therefore presents investment needs for all three cities up to 2070, phased across the periods up to 2030, 2030 to 2050 and 2050 to 2070.

The state-level pipeline aggregates city projects across eight sectors including Built Environment and Energy, Transportation, Water Supply, Wastewater Management, Stormwater Management, Solid Waste Management, Urban Greening and Biodiversity, and Air Quality, covering both climate adaptation and mitigation priorities. Similar



projects across cities are grouped together, with projects further categorised as capital investment projects and enabling measures. For each project, the report consolidates information on scale, expected climate impacts and beneficiaries, and indicative investment requirements, and rolls these up by sector and action type to support prioritisation and project preparation.

The investment figures in this report reflect initial estimates drawn from the city climate action plans, to be refined through further detailed assessments and studies. Costs have not been estimated for certain projects and actions where limited information is available on the scale, size or design. These remain a part of the pipeline and will require costing during project preparation.



2.3 How the State can use this Climate Project Pipeline

This report brings city climate projects together into a state-level pipeline to give the state government a consolidated view of the scale, sectoral mix and timing of the climate investments its cities need, and of how these contribute to state priorities on clean energy, sustainable mobility, water security, urban greening and resilience, including the goals of the Tamil Nadu State Action Plan on Climate Change 2.0 and the four flagship missions coordinated by the TNGCC. It highlights investment needs shared across cities, where technical and financial support can be coordinated, and helps state departments and cities identify short-term and medium-term opportunities to build climate resilience into urban infrastructure and services. The pipeline is also intended to help mobilise support for project preparation and delivery from public finance, the private sector, multilateral development banks, development partners and philanthropies.

State and city departments can use the pipeline to move from planned interventions to implementation. Projects can be matched to the national and state schemes best placed to fund them, while those that go beyond budgetary allocations can be steered towards other sources of finance. The pipeline also helps departments prioritise and sequence projects, link them to the State Action Plan on Climate Change and annual budgets, and assign responsibilities for project preparation, so that climate projects become part of city and state plans and policies.

Project proposals can be strategically steered and designed to leverage funding from the **Urban Challenge Fund,** which has a corpus of INR 1 lakh crore for cities until 2030-31 and can support 25% of project costs on the condition that at least half of the cost is raised from municipal bonds, public-private partnerships, and bank loans[17]. The pipeline includes common climate projects across the three cities such as renewable energy in municipal utilities, energy-efficient pumping in water supply and wastewater systems, green buildings, bus fleet expansion and electric mobility, 24x7 water supply with reduction of non-revenue water, rejuvenation and interlinking of lakes and water bodies, tertiary treatment for reuse of treated wastewater, faecal sludge and septage management, stormwater drainage expansion and nature-based drainage, bio-CNG and material recovery facilities, and urban parks and tree plantation, which can be bundled into state-wide programmes for pooled investment that delivers transformational climate benefits and outcomes.

17 Ministry of Housing and Urban Affairs, 2026: Urban Challenge Fund – Operational Guidelines

2.4 Climate Project Pipeline at a Glance

CLIMATE PROJECT PIPELINE AT A GLANCE: TAMIL NADU

TOTAL INVESTMENT
₹88,501 crore
estimated investment across eight sectors by 2070

CLIMATE PROJECTS ACROSS
3 cities
Coimbatore, Tiruchirappalli and Tirunelveli

GHG REDUCTION POTENTIAL
19.77 million tCO_2e
per year by 2070

Built Environment and Energy
₹56,806 crore

- Rooftop and captive solar PV plants and solar water heaters
- High Energy-efficiency electrical appliances & pumps
- Green buildings, cool roofs, efficient glazing and shift towards clean cooking fuel
- Climate resilient public infrastructure such as heat-resilient vending zones

Transportation
₹12,304 crore

- Metro rail and road transport infrastructure
- Non-motorised transport network to increase modal share of walking & cycling
- Transition of private, commercial and freight vehicles to electric vehicles
- Intelligent traffic management and flood-resilient bus stops

Water Supply
₹8,822 crore

- Water supply and treatment capacity augmentation
- 24x7 metered water supply and distribution
- Rooftop rainwater harvesting for buildings and groundwater management
- NRW reduction and smart water supply management

Wastewater Management
₹3,748 crore

- Underground sewerage network rehabilitation and capacity expansion
- Decentralised treatment, tertiary treatment and wastewater reuse
- New STPs, upgrades of aerobic STPs and methane recovery
- Faecal sludge and septage management with methane recovery

Stormwater Management
₹3,951 crore

- Expansion and rehabilitation of storm water drainage network
- Rejuvenation of river and city lakes and their interlinking
- Restoration of natural drains with blue-green buffers
- Recharge pits, swales and permeable pavements

Solid Waste Management
₹1,144 crore

- 100% source segregation and door-to-door collection
- Bio-CNG, biomethanation, composting and waste-to-energy
- Material recovery facilities and dry-waste recycling
- Biomining of legacy waste and sanitary landfills

Urban Greening and Biodiversity
₹1,726 crore

- Urban parks, eco-parks and tree plantation
- Green corridors linking parks, lakes and campuses
- Pollinator gardens, grasslands and other micro-habitats
- Local Biodiversity Strategy and Action Plans

Air quality

- •Vehicle emission testing and scrapping facilities
- •Construction dust control
- Enforcement of industrial emission standards

Notes: *Cost is not estimated for Air Quality projects due to limited available information on project scale, size or design and these require further detailed technical assessments*



Phasing of Pipeline Investment (₹ crore) by 2070, three cities

₹31,619 CRORE	₹23,523 CRORE	₹33,359 CRORE
UPTO 2030	2030-2050	2050-2070

The pipeline consolidates the climate projects in the Net-zero Climate Resilient City Action Plans of Tirunelveli, Coimbatore and Tiruchirappalli, grouping similar actions across the cities. Together, the climate projects across eight sectors add up to an estimated investment of **INR 88,501 crore** by 2070. By 2070, these projects are expected to reduce GHG emissions by **19.77 million tCO2e annually**, and the adaptation projects will benefit **39.2 lakh residents** across three cities.

Renewable energy accounts for the largest share of investment (38%), led by 7,272 MWp of rooftop and captive solar PV in homes, commercial buildings and industries. Energy-efficient equipment follows at 24%, metro rail and road infrastructure at 12%, and rooftop rainwater harvesting and groundwater management at 7%. The remaining 19% covers water supply augmentation and treatment, 24x7 water supply, stormwater and wastewater management, electric vehicles, clean cooking, urban greening and solid waste management.

Renewable energy also delivers the largest share of emission reductions (57%), followed by energy-efficient equipment (16%), public and private electric vehicles (10%) and green and cool buildings (7%). Solid waste management contributes 4%, through dry-waste recycling, scientific landfills with gas capture, and wet-waste treatment by composting, bio-methanation, bio-CNG and waste-to-energy.

An investment of INR 31,619 crore is needed by 2030, rising to INR 55,142 crore by 2050 and INR 88,501 crore by 2070. Investment up to 2030 is led by built environment and energy and by transport, mainly the Coimbatore metro and bus fleet expansion, followed by water supply and wastewater. Between 2030 and 2050, buildings and energy account for most of the additional investment, along with expanded stormwater drainage. After 2050, investment goes mainly to buildings and energy, as renewable energy and energy-efficient equipment are scaled up.



Estimated investment by action within each sector (₹ crore)

Built Environment and Energy
₹56,806 crore



Transportation
₹12,304 crore



Water Supply
₹8,822 crore



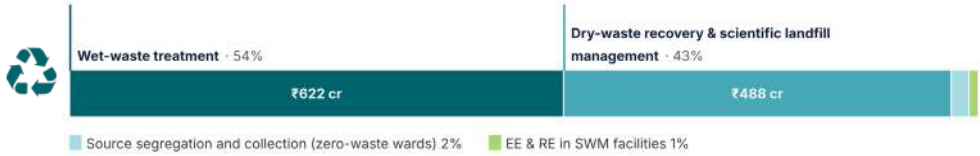
Wastewater Management
₹3,748 crore



Stormwater Management
₹3,951crore



Solid Waste Management
₹1,144 crore



Urban Greening & Biodiversity
₹1,726 crore



Note: *Costs are not estimated for some projects and actions due to limited available information on project scale, size or design, and these require further detailed technical assessments. Therefore, certain action types show limited cost contribution.*

** EE – Energy Efficiency; MRF – Material Recovery Facility; NRW – Non-Revenue Water; RDF – Refuse-derived Fuel; RE – Renewable Energy; SCADA – Supervisory Control and Data Acquisition; STP – Sewage Treatment Plant; WTP – Water Treatment Plant.*



Estimated GHG emission reduction by action within each sector (million tCO_2e per year)

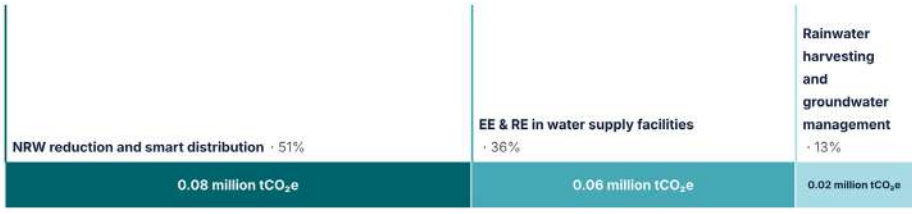
Built Environment and Energy
15.88 million tCO_2e/yr



Transportation
2.75 million tCO_2e/yr



Water Supply
0.16 million tCO_2e/yr



Wastewater Management
0.15 million tCO_2e/yr



Solid Waste Management
0.82 million tCO_2e/yr





03 City Snapshots: Profile and Climate Targets

Sector-wise pipeline of climate projects presented as tables listing the capital investment projects and enabling measures, with scale up to 2070, expected climate impacts and benefits, and indicative investment requirements.

Cities in Numbers

8
sectors: Built Environment and Energy, Transportation, Water, Wastewater, Stormwater, Solid Waste, Urban Biodiversity and Air Quality

39.2 LAKH
residents benefiting from climate projects

THREE TAMIL NADU CITIES COMPARED Profile, emissions, risk and targets

	Coimbatore	Tiruchirappalli	Tirunelveli
Population lakh	22.9	10.8	5.5
City area sq km	258	167	109
Density persons / sq km	8,875	6,465	5,104
GHG emissions $MtCO_2e$	3.99	1.4	0.73
Per capita emissions tCO_2e / person	1.75	1.32	1.32
Population at climate risk % of city	33.9%	35.3%	69.5%
Mitigation target GHG reduction below BAU	**87.4%** below BAU by **2070** Net-zero target	**87.4%** below BAU by **2070** Net-zero target	**83.9%** below BAU by **2070** Net-zero target



Coimbatore

City area: 257.8 sq. km (100 wards, 5 zones)

Total population (2021): 22.9 lakh

Population density (2021): 8,875 persons per sq. km

Total households (2021): 5.1 lakh

Climatic condition: Warm and humid; Average annual rainfall: 952 mm

Key climate hazards:
- **Extreme heat:** max. temperature to increase by 3.1–3.3°C by end of century
- **Urban floods:** annual rainfall to increase by 11% by end of century

Climate risk and vulnerability index: 34 of 100 wards at risk; 7.8 lakh persons (33.9%)
- Extreme: 2 wards, 0.71 lakh (3.1%)
- High: 9 wards, 2.3 lakh (10.1%)
- Moderate: 23 wards, 4.7 lakh (20.7%)

Fragile urban systems: Water supply, Wastewater, Solid waste, Transport, Stormwater and Health

Economic activities: Trade, commerce and industry

City-scale GHG emissions (2021): 3.99 million tCO_2e; 1.75 tCO_2e per capita
Key emitting sectors: Industries (44%), Residential buildings (26%) & Transport (14%)

Climate Target:
Mitigation – City-scale GHG emissions:
45.5% reduction from BAU levels by 2030
62.2% reduction from BAU levels by 2050
87.4% reduction from BAU levels by 2070
Adaptation goal: Become a climate-resilient city by implementing measures that enhance resilience against urban flooding and rising temperatures and respond in a timely manner to climate challenges through the adoption of comprehensive climate adaptation strategies

Tiruchirappalli

City area: 167.23 sq. km (65 wards, 4 zones)

Total population (2021): 10.1 lakh

Population density (2021): 6,465 persons per sq. km

Total households (2021): 2.83 lakh

Climatic condition: Tropical – wet & dry; Average annual rainfall: 850 mm

Key climate hazards:
- **Extreme heat:** max. temperature to increase by 1.6–3.3°C by end of century; more heatwaves and hot days
- **Urban floods:** annual rainfall to increase by 21.9% by end of century

Climate risk and vulnerability index: 58 of 65 wards at risk; 3.7 lakh persons (35.3%)
- Extreme: 2 wards, 0.34 lakh (3.2%)
- High: 3 wards, 0.66 lakh (6.3%)
- Moderate: 16 wards, 2.70 lakh (25.8%)

Fragile urban systems: Water supply, Wastewater, Solid waste, Transport, Health, Urban greening and biodiversity

Economic activities: Industry and Tourism

City-scale GHG emissions (2021): 21.4 million tCO_2e; 1.32 tCO_2e per capita
Key emitting sectors: Residential buildings (42.8%), Transport (20.9%) & Industries (17.1%)

Climate Target:
Mitigation – City-scale GHG emissions:
41.3% reduction from BAU levels by 2030
58.7% reduction from BAU levels by 2050
87.4% reduction from BAU levels by 2070
Adaptation goal: Reduce the impact of heat stress and urban flooding on urban infrastructure and citizens, particularly vulnerable communities, by enhancing their capacities, building climate-resilient infrastructure and responding successfully to climate change.



Tirunelveli

City area: 108.65 sq. km (55 wards, 4 zones)

Total population (2021): 5.5 lakh

Population density (2021): 5,104 persons per sq. km

Total households (2021): 1.4 lakh

Climatic condition: Semi-arid; Average annual rainfall: 669 mm

Key climate hazards:

- **Extreme heat:** max. temperature to increase 0.7–1.8°C by end of century
- **Urban floods:** annual rainfall to increase by 19.3% by end of century

Climate risk and vulnerability index: 38 of 55 wards at risk; 3.9 lakh persons (69.5%)

- Extreme: 2 wards, 0.2 lakh (3.5%)
- High: 9 wards, 0.8 lakh (14.3%)
- Moderate: 27 wards, 2.9 lakh (51.7%)

Fragile urban systems: Water Supply, Wastewater, Solid waste and Transport

Economic activities: Agriculture, Textiles, Education and Trade

City-scale emissions (2021): 0.73 million tCO_2e; 1.32 tCO_2e per capita
Key emitting sectors: Residential buildings (42%), Transport (27%) & Commercial (15%)

City target:
Mitigation – City-scale GHG Emissions
43.2% reduction from BAU levels by 2030
58.9% reduction from BAU levels by 2050
83.9% reduction from BAU levels by 2070
Adaptation goal: Enhance resilience to extreme rainfall and heat events through improved planning and management, infrastructure development and adopting climate-sensitive and nature-based solutions.

04 Climate Projects by Sector

Profiles of the three cities – their size, climate hazards, risk and vulnerability, emissions and the mitigation and adaptation targets set in their climate resilient city action plans

Sectors in Focus

3 CITIES
home to 39.2 lakh people

130 OF 220
wards assessed as at climate risk across 3 cities

6.1 $MTCO_2E$
combined city-scale GHG emissions (2021)

2070
horizon year for climate resilient city action plan of all three cities, with milestones in 2030 and 2050

Sector-wise Projects

Built Environment and Energy

₹56,806 crore investment by 2070

15.89 Mt CO_2e/yr reduction potential

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Renewable energy for buildings and industries (rooftop and captive solar): 7,272 MWp rooftop/captive solar PV plants complemented by Green power purchase from DISCOMs • 4,509 MWp net-metered rooftop solar: residential 963 MWp; commercial and institutional 718 MWp; industrial 2,827 MWp • 2,763 MWp captive/off-site solar: residential 605 MWp; commercial and institutional 510 MWp; industrial 1,648 MWp	**GHG emissions reduction:** 10.91 million tCO2e/yr	INR 32,721 crore
Energy-efficient lighting and appliance retrofit in buildings • 306.1 lakh LED fixtures (residential 180.2 lakh; commercial and institutional 34.1 lakh; industrial 91.8 lakh) • 124.8 lakh BLDC fans (residential 60.6 lakh; commercial and institutional 10.5 lakh; industrial 53.7 lakh) • 25.0 lakh star-rated refrigerators (residential 12.6 lakh; commercial and institutional 12.4 lakh) • 16.3 lakh energy-efficient air-conditioners (residential 2.3 lakh; commercial and institutional 10.1 lakh; industrial 3.9 lakh)	**GHG emissions reduction:** 3.06 million tCO2e/yr	INR 21,139 crore
Energy-efficient water pumps in buildings: 23,234 energy-efficient BLDC/VFD pumps in large apartments and residential societies	**GHG emissions reduction**: 0.008 million tCO2e/yr	INR 349 crore



Cool roofs in heat-vulnerable neighbourhoods: 13.3 lakh new and existing buildings (9.7 lakh residential; 3.5 lakh commercial and institutional), prioritising low-income areas, social housing and public buildings	**GHG emissions reduction**: 0.24 million tCO_2e/yr	INR 380 crore
Solar water heaters in buildings: 2.5 lakh residential households and about 2,100 hotels, hospitals and other commercial and institutional units with roof space	**GHG emissions reduction**: 0.27 million tCO2e/yr	INR 428 crore
Clean cooking: LPG to solar-powered electric cooking and PNG • Piped natural gas (PNG) replacing LPG use • Solar-powered electric cooking replacing LPG use, supported by 309.5 MWp of solar PV	**GHG emissions reduction**: 4.50 million tCO_2e/yr	INR 1,393 crore
Solar PV for street lighting: 81 MWp of solar PV to meet street-lighting demand	**GHG emissions reduction**: 0.09 million tCO2e/yr	INR 365 crore
Rooftop and vertical gardens: residential, commercial and institutional buildings and public spaces in high built-up and heat-stressed wards, with property-tax incentives in Tiruchirappalli	**Beneficiaries:** 2.3 lakh persons	INR 30 crore
High-performance window glazing in buildings: 10.6 lakh new and existing buildings (7.8 lakh residential; 2.9 lakh commercial and institutional)	**GHG emissions reduction**: 0.74 million tCO_2e/yr	Not estimated*
Green-certified buildings: 2.0 lakh residential and 1.1 lakh commercial and institutional buildings designed and certified to green building standards – led by mandatory certification of new public buildings	**GHG emissions reduction:** 0.36 million tCO_2e/yr **Beneficiaries**: 28.4 lakh persons	Not estimated
Flood-resilient primary health centres (Coimbatore): Floodproofing and retrofitting UPHCs and hospitals in flood-prone areas	**Beneficiaries:** 22.9 lakh persons	Not estimated
Heat-resilient street vending zones (Tiruchirappalli): Street vending management plan and shaded / cooled vending zones for 5,200 vendors at Gandhi, Woraiyur, Thennur & Panjapur markets	**Beneficiaries:** 0.05 lakh persons	Not estimated
Enabling measures (policy, regulatory and programme support)		
Sustainable architecture and green building adoption: city-specific green building policy and regulations covering design, construction, operation and end-of-life, aligned with TNCDBR and supported by incentives	**Beneficiaries:** 39.2 lakh persons	Not estimated

*Notes: *Across all sectors, costs are not estimated for certain actions due to limited available information on project scale, size or design and these require further detailed technical assessments*



Transportation

₹12,304 crore investment by 2070

2.75 Mt CO_2e/yr reduction potential

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Public transit expansion: bus fleet and metro rail integration 801 additional electric buses with passenger information systems and BRT elements 139 km, five-corridor Coimbatore Metro Rail	**GHG emissions reduction:** 0.37 million tCO_2e/yr **Beneficiaries:** 12.0 lakh persons	INR 10,626 crore
•**Expansion of non-motorised transport infrastructure:** shift to walking and cycling: 14.41 lakh trips	**GHG emissions reduction:** 0.44 million tCO2e/yr **Beneficiaries:** 6.0 lakh persons	INR 450 crore
•**Electrification of private, commercial and freight vehicles** •Passengers: 69.7 lakh cars, two-wheelers, three-wheelers and commercial vehicles including e-buses Freight: 2.55 lakh light, medium and heavy goods vehicles	**GHG emissions reduction:** 1.92 million tCO2e/yr	INR 850 crore
Public EV charging infrastructure with solar PV: EV charging at municipal buildings, multi-level parking, auto/taxi stands, bus stands and railway stations, with 1.7 MWp of solar PV at bus depots	**GHG emissions reduction:** 0.003 million tCO_2e/yr	INR 11 crore
Electric municipal fleet: Replacement of municipal cars and waste-collection tippers with electric vehicles	**GHG emissions reduction:** 0.02 million tCO_2e/yr	INR 367 crore
Citywide intelligent traffic management and road improvements	**Beneficiaries:** 39.2 lakh persons	Not estimated



Water Supply

₹8,822 crore investment by 2070

0.16 Mt CO_2e/yr reduction potential

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Water source and treatment capacity augmentation: 200 MLD in Coimbatore, 112.88 MLD in Tiruchirappalli and 50 MLD in Tirunelveli (water treatment plants)	**Beneficiaries:** 24.4 lakh persons	INR 978 crore
24x7 metered water supply at 135 lpcd: city-wide scale-up of 24X7 pilots in Tirunelveli (~10,000 households), Coimbatore (RS Puram and Kavundampalayam), and Tiruchirappalli (eastern zone)	**Beneficiaries:** 39.2 lakh persons	INR 1,528 crore
NRW reduction and SCADA: NRW reduction studies, smart flow meters and SCADA based monitoring, reduction of leakages	**GHG emissions reduction:** 0.08 million tCO_2e/yr **Beneficiaries:** 39.2 lakh persons	INR 94 crore
Renewable energy installation for water supply facilities: 35.5 MWp solar PV plants at pumping stations and treatment facilities	**GHG emissions reduction:** 0.04 million tCO2e/yr	INR 160 crore
Energy-efficient pump retrofit in water supply facilities: 282 energy-efficient pumps replacing ageing water-supply pumps	**GHG emissions reduction:** 0.02 million tCO2e/yr	INR 7 crore
Rainwater harvesting and groundwater recharge: rainwater harvesting in residential, commercial and institutional buildings	**GHG emissions reduction:** 0.02 million tCO_2e/yr	INR 6,055 crore
Enforcement against untreated discharges (Coimbatore): Enforcement of discharge standards for sewage and industrial effluent entering rivers and lakes	**Beneficiaries:** 39.2 lakh persons	Not estimated
Enabling measures (policy, regulatory and programme support)		
Integrated water resource management plan: Covers water-balance and resource management plans, groundwater recharge and alternative sources	**Beneficiaries:** 39.2 lakh persons	INR 1 crore
Monitoring of rainwater harvesting structures (Tirunelveli, Tiruchirappalli): Periodic inspection and maintenance of TNCDBR-mandated RWH structures in buildings	**Beneficiaries:** 16.3 lakh persons	Not estimated
Groundwater regulation and industrial water reuse (Coimbatore, Tiruchirappalli): Groundwater extraction limits, tariffs and mandatory reuse of treated water by industrial and commercial users	**Beneficiaries:** 22.9 lakh persons	Not estimated



Wastewater Management

₹3,748 crore investment by 2070

0.15 Mt CO_2e/yr reduction potential

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Sewerage network rehabilitation and expansion: 60 wards in Coimbatore, Old UGSS network (1989) in Tirunelveli, high UGSS-complaint wards in Tiruchirappalli and extension of UGSS for 100% coverage	**Beneficiaries:** 24.2 lakh persons	INR 2,616 crore
Tertiary treatment for industrial reuse of wastewater: 160 MLD of tertiary treatment (43 MLD of additional capacity in Coimbatore, 50 MLD in Tirunelveli, and 67 MLD in Tiruchirappalli)	**Beneficiaries:** 39.2 lakh persons	INR 171 crore
Low-carbon anaerobic STPs with biogas recovery: 387 MLD of anaerobic treatment capacity with methane recovery (methane recovery in proposed 58 MLD STP Tirunelveli)	**GHG emissions reduction:** 0.042 million tCO2e/yr	INR 530 crore
Decentralised treatment and dual plumbing: 35,102 KLD of DeWATs (Coimbatore 17,753 KLD, Tirunelveli 10,224 KLD, Tiruchirappalli 7,125 KLD) and building-level STPs with dual plumbing in large developments	**GHG emissions reduction:** 0.001 million tCO_2e/yr **Beneficiaries**: 16.4 lakh persons	INR 105 crore
Solar PV for wastewater facilities: 19.6 MWp of solar PV at STPs and pumping stations	**GHG emissions reduction:** 0.02 million tCO_2e/yr	INR 88 crore
Energy-efficient pump retrofit in wastewater facilities: 120 energy-efficient pumps at sewage pumping and lifting stations	**GHG emissions reduction:** 0.008 million tCO_2e/yr	INR 3 crore
Performance improvement and optimisation of existing aerobic STPs: 286 MLD of aerobic treatment capacity	**GHG emissions reduction:** 0.008 million tCO2e/yr	Not estimated
Faecal sludge management and treatment facilities: 1,167 KLD of FSTP with methane recovery (Coimbatore 879 KLD; Tiruchirappalli 287 KLD), FSM plans, regulation of desludging operators and decanting stations	**GHG emissions reduction**: 0.07 million tCO_2e/yr **Beneficiaries:** 17.0 lakh persons	INR 234 crore
Enabling measures (policy, regulatory and programme support)		
Wastewater reuse policy and action plans: Reuse and recycling policy with TNPCB and TIDCO mandating reuse by large industrial and commercial users	**Beneficiaries:** 39.2 lakh persons	INR 1 crore



Stormwater Management

₹3,951 crore investment by 2070

Adaptation resilience-focused projects

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Stormwater drainage network expansion and upgrades with flood early warning: new drains, lining of defunct drains, culverts, outfalls and pumping stations in flood-vulnerable wards	**Beneficiaries:** 21.3 lakh persons	INR 3,501 crore
Rejuvenation of water bodies: Restoration and cascading of 14 lakes in Tirunelveli and 13 lakes in Tiruchirappalli, and rejuvenation of Noyyal river in Coimbatore	**Beneficiaries:** 16.3 lakh persons	INR 154 crore
Natural drain restoration: 37.8 km of natural streams restored with 3 m blue-green buffers in Coimbatore and recovery of historic drains in Tiruchirappalli	**Beneficiaries:** 13.3 lakh persons	INR 121 crore
Groundwater recharge pits, swales and percolation wells for runoff capture: at 31 flood vulnerable locations in Coimbatore, 234 parks in Tiruchirappalli and 96 parks in Tirunelveli	**Beneficiaries:** 16.8 lakh persons	INR 101 crore
Permeable pavements, tree box filters and green strips: on major roads in 3 cities and built into road construction SOPs	**Beneficiaries:** 39.2 lakh persons	INR 71 crore
Enabling measures (policy, regulatory and programme support)		
Watershed assessment and management plans: GIS-based watershed plans with SOPs requiring roads and town planning schemes to follow natural contours	**Beneficiaries:** 28.4 lakh persons	INR 3 crore

Solid Waste Management

₹1,144 crore investment by 2070

0.82 Mt CO_2e/yr reduction potential

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Door-to-door collection, source segregation and decentralised collection centres: 100% source segregation and collection, with dry-waste, C&D waste and e-waste collection centres	**GHG emissions reduction:** not quantified **Beneficiaries**: 39.2 lakh persons	INR 22 crore
Wet-waste processing and waste-to-energy: 2,341 TPD bio-CNG capacity, 547 TPD biomethanation capacity, 274 TPD of composting & 501 TPD of waste-to-energy plant (Coimbatore)	**GHG emissions reduction:** 0.32 million tCO2e/yr **Beneficiaries:** 22.4 lakh persons	INR 622 crore
Dry-waste recovery and recycling: 1,643 TPD of recycling through MRFs, transfer stations with sorting and eco-hubs with recyclers	**GHG emissions reduction**: 0.30 million tCO_2e/yr **Beneficiaries:** 9.9 lakh persons	INR 331 crore
Legacy waste bio-mining and sanitary landfills with gas capture: at Vellalore (Coimbatore), Ariyamangalam (Tiruchirappalli) and Ramayanpatti (Tirunelveli)	**GHG emissions reduction**: 0.20 million tCO_2e/yr **Beneficiaries**: 6.9 lakh persons	INR 157 crore
Solar PV at waste management facilities (Tiruchirappalli): 2.6 MWp of solar PV at transfer stations and processing sites	**GHG emissions reduction:** 0.003 million tCO_2e/yr	INR 12 crore



Urban Greening and Biodiversity

₹1,726 crore investment by 2070

Adaptation resilience-focused projects

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Urban parks, eco-parks and tree plantation: 165-acre Semmozhi Poonga eco-park in Coimbatore, new parks and avenue plantation in heat-stressed wards, and use of OSR land for green space	**Beneficiaries:** 26.3 lakh persons	INR 1,724 crore
Green corridors: Green corridors with native species in parks, OSR spaces, lakes and institutional campuses	**Beneficiaries**: 39.2 lakh persons	Not estimated
Urban micro-habitats: Pollinator gardens, grasslands/ scrublands, mudflats and pocket parks guided by natural asset maps	**Beneficiaries:** 39.2 lakh persons	Not estimated
Enabling measures (policy, regulatory and programme support)		
Local Biodiversity Strategy and Action Plans (LBSAPs): City Biodiversity Index and LBSAPs with ecosystem health and invasive species assessments	**Beneficiaries:** 39.2 lakh persons	INR 2 crore

Air Quality

To be costed during project preparation

Co-benefits health and liveability benefits

Project and scale by 2070	Climate impact and benefits	Estimated cost by 2070
Capital Investment Projects		
Vehicle emission testing and scrapping facilities (Coimbatore, Tiruchirappalli)	**Beneficiaries:** not quantified	Not estimated*
Enabling measures (policy, regulatory and programme support)		
Construction dust control policy (Coimbatore, Tiruchirappalli): Good construction practices, SOPs, debris management, mechanised road cleaning and covered transport of materials	**Beneficiaries:** 10.8 lakh persons	Not estimated
Industrial emission control (Coimbatore, Tiruchirappalli): Enforcement of emission standards, pollution control devices and cleaner fuels, including cleaner brick kilns	**Beneficiaries:** not quantified	Not estimated

Note: *Cost is not estimated for Air Quality projects due to limited available information on project scale, size or design and these require further detailed l assessments.*



Investing in Climate Resilient Cities
State level Project Pipelines: Tamil Nadu

2026

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Local Governments for Sustainability
SOUTH ASIA