



## ABSTRACT

Environment, Climate Change - Budget Announcement for the year 2021-2022 - Tamil Nadu Climate Change Mission - Orders – Issued.

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### **ENVIRONMENT, CLIMATE CHANGE AND FOREST (EC.2) DEPARTMENT**

**G.O.(Ms).No.54**

**Dated: 23.03.2022**

பிலவு, பங்குனி – 9,  
திருவன்னாவர் ஆண்டு -2053

**Read:**

G.O (Ms) No.101, Environment, Climate Change and Forest (EC.2)  
Department, Dated: 03.11.2021.

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#### **ORDER:-**

Climate Change is an undisputed reality causing severe impact on the natural environment, human lives, economic assets and activities thus posing an urgent need for a comprehensive climate action. The challenge of Climate Change calls for extraordinary vision, leadership, understanding and wisdom. Human ingenuity and intellect will play a critical role in addressing issues arising out of Climate Change impact. The effect of climate-related shifts, which largely stem from global warming caused by humankind, are already affecting daily life.

2. With the climate crisis becoming more widespread and severe, attention to climate policy and planning has surged in recent years and rightfully so. The challenges that come with climate change call for purposeful and decisive action. Stakeholders would need to act with unity, resolve & ingenuity towards equitable long-term solutions.

3. During the Budget Speech for the year 2021-2022, the Hon'ble Minister for Finance and Human Resources Management, among other announcements, made the following statement:

*"Combating and mitigating the impact of climate change is crucial for a coastal State like Tamil Nadu. To facilitate necessary action, the current Government, under the Hon'ble Chief Minister, has launched the Tamil Nadu Climate Change Mission to embark on Climate Change adaptation and mitigation activities with a total outlay of Rs.500 crore".*

4. In accordance with the above announcement, Government of Tamil Nadu is committed to building a sustainable and climate resilient future for its people through the Climate Change Mission (TNCCM).

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5. The Tamil Nadu State Action Plan on Climate Change (TNSAPCC) 2.0 is under formulation in consultation with stakeholders. TNSAPCC 2.0 will provide State-wide and cross-sectoral climate change impact and vulnerability assessment. It will also contain strategies for formulation of adaptation and mitigation activities to be carried out by State Government departments. These strategies, align with the National Action Plan for Climate Change (NAPCC).

6. The TNSAPCC 2.0 has identified following focus areas for climate action:

- Sustainable Agriculture & allied sectors
- Water Resources
- Forest and Biodiversity
- Coastal Area Management
- Strategic Knowledge & Climate Literacy
- Disaster Management & Mitigation
- Health & Sanitation
- Enhanced Energy Efficiency & Solar Mission
- Sustainable Habitat & Green Mobility
- Gender and Climate Change
- Children and Youth for Climate Action

By extending India's Nationally Determined Contributions (NDCs) to the State-level, the TNSAPCC 2.0 holds relevance for implementing the Sustainable Development Goals (SDG) agenda.

## **7. Mission, Vision & Goals**

- a. The comprehensive goal of the Mission is to invest in a transformational planning & programming methodology by adopting integrated strategies, planning and policymaking to maximise co-benefits between mitigation, adaptation and sustainable development.
- b. The State of Tamil Nadu has several Universities, Research Agencies and Academic Institutions working on Climate Change Adaptation and Mitigation. The expertise and experience of these institutions shall be utilized in Climate Change policies and ground truthing of initiatives.
- c. The Mission shall foster a comprehensive understanding of the impact of Climate Change across different sectors of society and how they are interrelated. Solutions for various climate crisis, be it the unprecedented rise in sea levels, agricultural productivity, the vulnerable coastal population and its infrastructural facilities and assets, guidance on ways and means to mitigate them.
- d. For initiatives under the Mission, efforts would be taken to augment resources from various funding options viz., National Adaptation Fund for Climate Change (NAFCC), Green Climate Fund (GCF) etc.,

- e. The Mission intends to expand collective human action to respond to climate change by investing in definite strategies, research & evidence, coordination with line departments and well-planned measures for maximum efficiency.
- f. The Mission will also work towards reducing Greenhouse Gases developing methods for emission reduction by use of efficient public transport systems, use of clean and green energy, alternative fuel resources, better monitoring etc.
- g. With a commitment to enhance the tree and forest cover of the State from 23.7% to 33% in the next ten years, the Mission will work in synergy with the Tamil Nadu Green Mission. Activities under this Mission shall also be worked out in close coordination with the Tamil Nadu Wetlands Mission as already announced by the Government of Tamil Nadu.
- h. The Mission will closely work with stakeholder departments on eco alternative solutions to single use plastic, sustainable practices for disposal of solid waste including sewage, e-waste, bio-medical waste etc.,
- i. The Mission will simultaneously work with partners and expert institutions to develop new technologies in the sector.
- j. The Mission will strive to create smarter infrastructure systems, to help recover from disasters and handle them effectively.
- k. Gender mainstreaming in climate action for women and children shall be the prime focus of the Mission.
- l. The Mission shall follow a “one health approach” to Climate Change to bring a better understanding of Climate Change impact on environmental, animal and human health. This approach will help the State to develop an expertise in the sector by collaborating with experts from the fields of veterinary, medical and public health taking into account the dynamic nature of eco systems in a changing climate.
- m. Climate courses and curricula in Universities, Institutions, Agencies etc., shall be encouraged under the Mission.
- n. As the leader Mission, efforts would be taken to utilize Green Technology to create new employment opportunities (Green Jobs) as a boost to the economy.

#### **8. Tamil Nadu Green Climate Company (TNGCC)**

In G.O.(Ms.)No.101, Environment, Climate Change and Forest (EC.2) Department, dated 03.11.2021, the State Government has issued orders for setting up the Tamil Nadu Green Climate Company (TNGCC) to implement the three key Missions of the Government of Tamil Nadu, viz., The Tamil Nadu Climate Change Mission, The Green Tamil Nadu Mission and the Tamil Nadu Wetlands Mission. TNGCC has been incorporated as a Section 8 Company under the Companies Act, 2013.

The Tamil Nadu Green Climate Company has setup a specialized Project Management Unit (PMU) for coordinating and monitoring of project activities under all the three Missions. The Tamil Nadu Green Climate Company has been set up with the following objectives:

- i) Planning, execution and monitoring of the State-wide Programme for the climate change adaptation and mitigation, wetlands mapping and restoration, enhancing the forest and tree cover of the State to 33% over the next ten years.
- ii) Creating strong policy support for climate change, cutting across all sectors of governance.
- iii) Devise strategies to reduce greenhouse gas emissions, bench marking of industries to move towards green manufacturing etc.,
- iv) Promote eco-friendly technologies towards a sustainable future e.g., solar and wind harvesting technologies, biodegradable packaging, e-vehicles etc.
- v) Develop collaborations and strengthen community engagement to build long term commitment for a Net Zero Carbon future for Tamil Nadu.
- vi) Promote multi stakeholder approach to fast-track climate change action in a synergized fashion.
- vii) Use proven climate change science & technologies to create evidence based green models for emulation and adaptation.
- viii) Educate and empower local communities in management of climate change at ground zero.
- ix) Promote successful climate change adaptation and mitigation models for replication.
- x) Build standards for energy efficient infrastructure to save precious energy and reduce energy consumption.
- xi) Create practical models for green mobility to reduce emissions.
- xii) Create State-of-the-Art monitoring mechanism for better compliance of Environmental Standards through transparent and credible systems.
- xiii) Conserve and preserve natural resources and promote their sustainable use.
- xiv) Creating a framework to bring synergy among the line Departments of the State for initiatives for environment protection.
- xv) Creating a platform for integration of knowledge and experience of National and International agencies through collaboration and partnership.
- xvi) Developing a framework for capacity building of various stakeholders (Line Departments, Institution / Universities, Researchers, Experts, Non-Government Organizations (NGOs) on Climate Change Adaptation and Mitigation, wetlands, tree plantation, eco restoration etc.

**9. Proposed activities under Tamil Nadu Climate Change Mission for the year 2021-2022:**

S. No	Objectives	Estimated Amount (Rs. in lakhs / crores)	Implementing Agency	Source of funding
<b>CONDUCTING BASELINE STUDIES</b>				
1.	Reducing Emissions from Mass Transport	Baseline study <b>Rs.20 lakhs</b> (Approx.)	TNPCB	Tamil Nadu Pollution Control Board (TNPCB)
2.	Rehabilitation of coastal habitats for climate change adaptation through eco-friendly solutions: Formation of Bio-shields with Casuarina, Palmirah, Cashew, Mangroves and other specialised species. Propagating Mangroves, Seagrass beds and Coral reefs.	Baseline studies <b>Rs.50 lakhs</b> (Approx.)	Forest Dept	TNPCB
3.	Waste to Energy: A pathway to clean power generation	Baseline study <b>Rs.20 lakhs</b> (Approx.)	TNPCB	TNPCB
4.	Carbon Enrichment Programme	Baseline study <b>Rs.20 lakhs</b> (Approx.)	Forest Dept	TNPCB
5.	Sustainable Habitat: Energy saving measures in buildings to reduce the impact of climate change.	Baseline study <b>Rs.25 lakhs</b> (Approx.)	DoE	TNPCB
6.	Climate literacy	Baseline study and media plan <b>Rs.20 lakhs</b> (Approx.)	DoE	TNPCB
7	Climate Smart Villages	Baseline study <b>Rs.30 lakhs</b> (Approx.)	DoE	TNPCB
	<b>TOTAL= Rs.1.85 crores</b>			

## 10. Proposed activities under Tamil Nadu Climate Change Mission for the year 2022-2023:

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
1.	<b>Stakeholders workshops on integrating Climate Change adaptation and mitigation to enhance development planning</b>	<p>Capacity building workshop for local communities &amp; Govt line depts</p> <p>Prioritizing adaptation &amp; mitigation planning of sectors in districts which require immediate attention to Climate Change vulnerability.</p> <p>Highlighting scientific evidence on Climate Change at Regional &amp; Global arenas &amp; focusing on successful indigenous &amp; technological interventions for community, eco friendly adaptation for building resilience in the society.</p>	<p><b>38 district level workshops and 2 State level workshops</b></p> <p><b>Rs.45.00 Lakhs (Approx.)</b></p>	<p>Prioritization of sectors in districts which require immediate attention to Climate Change vulnerability</p> <p>Framing specific adaptation &amp; mitigation strategies</p>	DoE / TNPCB	GoTN

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
2.	<p><b>Rehabilitation of coastal habitats for climate change adaptation through eco friendly solutions:</b></p> <p>A. Formation of Bio-shields through cultivation of casuarina, palmyrah, cashew and other specialised species.</p> <p>B. Propagating Mangrove plantations in coastal districts where it naturally grows in local ecosystems.</p> <p>C. Protecting and enhancing the growth of seagrass and coral reefs</p> <p>D. Developing an action plan and preparing an Atlas for sustainable coastal management in TN.</p>		Rs.50.00 crores	<p>Protection of coasts, reduction of soil erosion, salinity control and improvement of biodiversity. Palmyrah &amp; cashew plantation – drought resistance / Shore protection Mangroves for coastal defense</p> <p>Seagrass beds and coral reefs supports the marine biodiversity.</p> <p>Identification of vulnerable &amp; eco-sensitive areas on the coasts of TN. Sustainable Coastal protection</p>	<p>Forest Dept</p> <p>DoE</p>	<p>GoTN</p> <p>GoTN</p>

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
3.	<p><b>Carbon Enrichment Programme:</b>            Soil carbon storage is a vital ecosystem necessity which plays an extremely important role in promoting tree growth through increased supply of nutrients, enhanced retention of water and by storing significant amounts of carbon.</p> <p>Greater Chennai Corporation has set up a bio mining plant at Perungudi, Chennai. Soil obtained after bio mining of the legacy Municipal solid waste is extremely rich in nutrients and carbon.</p>	<p>A demo site is proposed to be set up at Nanmangalam Forest by adding the bio mined enriched soil from Perungudi to the degraded forests of Nanmangalam in collaboration with Forest Department, GCC and Anna University with the objective of enhancing the growth of trees and forest expansion through this pilot project.</p>	Rs.1.00 crore	<p>Improved soil carbon sequestration.</p> <p>Restored soil organic carbon.</p> <p>increased water holding capacity and increased nutrient availability beneficial for plant growth &amp; micro-organisms</p> <p>Reclamation of land after bio mining</p>	Greater Chennai Corporation & Forest Dept	GoTN

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
4.	<b>Sustainable Habitat</b> Energy saving measures in Government and Private buildings, both, independent homes and apartments to reduce greenhouse gas emissions from energy production and consumption.	<p>Creating awareness among residents about the need for energy saving, electricity in particular.</p> <p>Train builders &amp; developers in cost saving climate friendly building infrastructure through workshops.</p> <p>Developing SOP for construction of energy efficient housing programs.</p> <p>Developing a green building rating mechanism as a pilot project .</p>	Rs. 2.00 crores	<p>Energy efficiency technologies reduce GHG emissions. Sensitizing Architects, Engineers, Interior designers, plumbers, electricians, building industry stakeholders on energy efficient technologies in the construction sector. Conceptualize an approach to set out and implement policies to facilitate energy efficiency in buildings in the State.</p>	DoE & H&UD Dept	GoTN

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
5.	<p><b>Climate literacy and International Climate Summit</b></p> <p><b>Audience:</b> Govt functionaries, Students – Schools &amp; Colleges Farmers Fisher folk Industries Self Help Groups</p> <p><b>Means:</b> Videos Television Advertisements Radio Advertisements / Jingles Extension sessions Gram sabha Pamphlets / Posters / hoardings Traditional art folk and culture</p>	<p>Creating awareness on Climate Change impact.</p> <p>Ways and means to mitigate. Educating students on climate science, adaptation and mitigation activities.</p> <p>Best practices and practical solutions to mitigate Climate Change through media &amp; digital communication platforms like small videos, Apps etc.,</p> <p>Creating a platform for engaging students in Climate Change awareness</p> <p>campaigns on green days to actively involve them in group discussions, digital poster making street plays, skits, podcast, public campaigns etc.,</p>	Rs. 5.00 crores	Improved understanding of climate risks to generate local support for decision making	DoE	GoTN

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
6.	<b>Climate Smart Villages(CSV)</b> CSV shall serve as demo sites to test an approach through participatory methods of various technological and institutional options for dealing with Climate Change at the community level. Pilots projects through multi stakeholder collaborative platforms at selected villages	<b>Objectives:</b> 1. Understand challenges and vulnerability of local community to climate risks. 2. Develop future solutions to build climate resilience and increase adaptation & mitigation measures. 3. Identify & implement village / community level agriculture. 4. Identify ecological and socio economical solutions viz., setting up village level CC information centres, for weather smart activities like agro advisories. 5. Carbon / nutrient smart practices for better management of agroforestry, land use, livestock management, bio fuels etc. 6. Institutional / market smart activities like farmer-to-farmer learning, contingency planning, market info etc. 7. Learnings from smart villages would help the State understand ground level climate related interventions which could be upscaled at the State level helping the Govt in climate proofing of various Govt schemes.	<b>Rs. 10.00 crores</b> for 10 villages in agro – climatic zones in the State	Integration of adaptation approach to climate variability in water resources, forests, agriculture and allied sectors with resilient cropping practices  Energy efficient interventions  Increase in green cover	DoE& Line depts	GoTN

S. No.	Objectives	Activities	Estimated Amount (Rs. in lakhs / crores)	Expected outcome	Implementing Agency	Source of Funding
7.	<b>Launch function for the Climate Change Mission</b>		<b>Rs.1.05 crore</b>	---	<b>DoECC&amp;F</b>	<b>GoTN</b>
8.	<b>Climate resilient Green Temples</b>	Two temples one each at Madurai and near Chennai will be taken up for Climate Proofing as pilots to demonstrate measures towards climate adaptation and mitigation. The pilot would include efficient solar lighting, water management, heat mgt, greening, eco restoration of temple tanks, interventions to remove plastic and micro plastic etc. This would also include enrichment of temple gardens to enhance biodiversity etc.	<b>Rs.3.00 crores</b>	These pilot projects would throw light on significant measures to be adopted for buildings of cultural and Heritage value to make them climate resilient	<b>DoE / TNPCB / FOREST DEPT</b>	<b>GoTN</b>
9.	<b>Key Staff for the Green Climate Company Project Management Unit (PMU)</b> Key staff for the PMU of TNGCC namely, CPD, Finance Officer, Technical Officer and 5 supporting staff shall be hired on contractual basis for a period of 5 years.(yearly performance assessment would be done).	Eligibility, salary, etc will be decided by the Green Climate Company which shall include travel allowances, PMU administrative expenses / incidental expenditure etc. (Lumpsum)	<b>Rs.3.00 crores</b>	Better coordination, effective monitoring and supervision of climate projects	<b>DoECC&amp;F</b>	<b>GoTN</b>
<b>TOTAL= Rs.75.50 crores</b>						

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11. Government have decided to accord sanction for the "Tamil Nadu Climate Change Mission" at a total cost of Rs.77.35 crore (Rupees Seventy seven crore and thirty five lakhs only) for 9 components for the years 2021-2023 as detailed in para 9 and para 10 to be implemented by the Environment, Climate Change and Forest Department.

12. The amount sanctioned in para 9 above shall be debited under the following Head of Account:-

"3435 – Ecology and Environment – 03 Environment Research and Ecological Regeneration – 104 Climate Change Action Programme – State's Expenditure – AA – Tamil Nadu Climate Change Mission – 309 – Grants-in-Aid – 03 Grants for specific schemes. (DPC-3435-03-104-AA-309-03).

13. The Director of Environment is the Estimating, Reconciling and Controlling Authority to the above said new Head of Account.

14. The Pay and Accounts Officer / Treasury Officer concerned are requested to open the above new Head of Account in their books.

15. This order issues with the concurrence of the Finance Department vide its U.O.No.14626/ Fin(ECC&F)Dept/2022, dated 22.03.2022.

(BY ORDER OF THE GOVERNOR)

SUPRIYA SAHU  
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT

**To:**

The Director of Environment, Chennai-15  
The Chairman, Tamil Nadu Pollution Control Board, Chennai-32  
The Additional Chief Secretary to Government  
Finance Department, Secretariat, Chennai-9  
The Additional Chief Secretary to Government  
Public Works Department, Secretariat, Chennai-9  
The Additional Chief Secretary to Government  
Municipal Administration and Water Supply Department, Secretariat, Chennai-9  
The Additional Chief Secretary to Government,  
Energy Department, Secretariat, Chennai -9  
The Secretary to Government  
Agriculture and Farmers Welfare Department, Secretariat, Chennai-9  
Principal Chief Conservator of Forests (Head of Forest Force), Chennai-15  
Principal Chief Conservator of Forests and Chief Wildlife Warden, Chennai-15  
Additional Principal Chief Conservator of Forests /Member Secretary,  
Tamil Nadu State Wetland Authority, Chennai-15  
The Accountant General, Chennai-18.  
The Pay and Accounts Officer, Chennai-9.

**Copy to:**

The Private Secretary to Secretary-IV to Hon'ble Chief Minister,  
The Hon'ble Chief Minister's Office, Chennai-9.

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The Special/Senior Personal Assistant to the Hon'ble Minister(Forests),  
Chennai-9.

The Special/Senior Personal Assistant to the Hon'ble Minister for Environment  
Climate Change and Youth Welfare and Sports Development, Chennai – 9.

The Private Secretary to Additional Chief Secretary to Government,  
Environment, Climate Change and Forest Department, Chennai-9.

The Private Secretary to Special Secretary (Environment, Climate Change)  
Environment, Climate Change and Forest Department, Chennai-9.

The Private Secretary to Additional Chief Secretary to Government  
Finance Department, Chennai-9.

Finance (ECC&F/BPE) Department, Chennai-9.

Environment, Climate Change and Forest (FR.6, FR.7, FR.9 and EC.1) Department,  
Secretariat, Chennai-9

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//FORWARDED BY ORDER//

*23/03/22*  
SECTION OFFICER

*23/03/22*