



## **ABSTRACT**

Environment, Climate Change — Operationalization of the “**Climate Studio and establishment of conference hall at Center for Climate Change and Disaster Management**” with a proposed outlay of Rs.3.45 crores - Orders - Issued.

### **ENVIRONMENT, CLIMATE CHANGE AND FOREST (EC2) DEPARTMENT**

**G.O.(Ms.)No.22**

**Dated: 03.02.2022**

பிலவ, தை-21

திருவள்ளூர் ஆண்டு -2053

#### **Read:**

1. G.O(Ms.)No.255 Environment, Climate Change & Forests (EC.2) Department, dated 17.09.2019.
2. G.O(Ms.)No.101 Environment, Climate Change & Forests (EC.2) Department, dated 03.11.2021.
3. From the Director of Environment, Letter No.P4/1892/2019, Dated: 20.11.2021 and 01.12.2021.

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#### **ORDER:**

The Government of Tamil Nadu has taken the initiative to set up an exclusive Climate Change Research Center the, viz "Centre for Climate Change and Adaptation Research (renamed as **Centre for Climate Change and Disaster Management** (CCCDM)) at Anna University to strengthen the understanding of climate change and our capacity to manage and adapt to it. CCCDM is engaged in developing regional climate scenarios using Regional climate models, sectoral impacts and vulnerability assessments in water, agriculture, coastal, forest, health and urban sectors. It is also engaged in framing of suitable adaptation strategies, based on the recommendations of the Inter-Governmental Panel on Climate Change (IPCC). This Centre is also updating global and local data periodically based on continuous assessment reports of IPCC.

2. Tamil Nadu State Action Plan on Climate Change (TNSAPCC) has identified Centre for Climate change and Disaster Management (CCCDM), Anna University as the sectoral nodal agency for knowledge management in climate change. CCCDM has provided trainings and organized workshops jointly with the climate change cell, Department of Environment for various stake holders of line Departments engaged in preparation of the Tamil Nadu State Action Plan on Climate Change with the aim to improve the understanding and awareness of their sectoral issues in the light of climate change and ensuring mainstreaming of climate adaptation in Planning and Development.

3. In the Government Order 1<sup>st</sup> read above, the Government of Tamil Nadu announced setting up of a "Climate Studio" at the Centre for Climate Change and Adaptation Research (now CCC & DM), Anna University" in 2019 with the objective to contribute to capacity building and knowledge management on Climate Science and Research. The Climate Studio was set up with the financial support from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) India at Rs. 246.87 lakhs under their Climate Change Adaptation in rural areas of India Project.

4. In the Government Order 2<sup>nd</sup> read above, the Government have issued orders to set up the **Tamil Nadu Green Climate Company (TNGCC)**, under Section 8 of the Companies Act, 2013, to implement the three key Missions of the Government of Tamil Nadu viz, Green Tamil Nadu Mission, Tamil Nadu Wetlands Mission and Tamil Nadu Climate Change Mission. The three Missions mentioned above were announced in the Revised Budget 2021-22 and shall be implemented within a defined time frame to achieve the objectives through the Government of Tamil Nadu involving the academia, private sectors and civil society for transitioning the State to climate friendly platforms, championing renewable energy, building sustainable and resilient infrastructure, climate resilient agriculture, protection of forests and many other important initiatives across all the sectors of the Government.

5. Though the "Climate Studio" was set up in 2019 with adequate accessories, it was not operationalised for the past one and half years for various reasons. The Environment, Climate Change & Forest Department has reviewed the functions of this studio and decided to revive it's activities and sought proposals to operationalise it. Accordingly a proposal from CCC & DM was received through Director of Environment vide letter 3<sup>rd</sup> cited for Rs.5.36 crore including setting up a conference hall at Rs.37 lakhs.

6. CCCDM aims to bring together the scientific community, Government agencies, National Research Institutes and other Universities with an integrated research program addressing the climate change issues at the local level in all the Districts. Climate studio is enabled with State of Art comprehensive lab facility to provide micro-level information on natural resources. The main objective of the Climate Studio is to contribute to capacity building and knowledge management on Climate Science and Research. The Target groups of the trainees will be government officials, scientists, young researchers and other stakeholder's. The Climate studio is one of its kind established with high performance computation facility cluster with storage and accessories for climate modeling.

#### **Facilities at the Climate Studio**

- Models and tools to assess the climate risk and vulnerability on water, forestry, coastal, health and biodiversity.
- Regional Climate Model - PRECIS
- Coastal Area Management - SimCLIM- Sea Level Rise Predictions



- Water Sector - MIKE SHE and SWAT
- Agriculture Model - DSSAT, InfoCrop
- Forestry Sector - Dynamic Global Vegetation Model (DGVM).
- Statistical and mapping model - R, Python & ArcGIS

### **Objectives of the Climate Studio**

- To provide updated high resolution and robust cadastral level Regional Climate Scenario for micro level policy planning covering entire Tamil Nadu.
- To do periodical assessment of Climate change Impact & Vulnerability on Natural Resources viz., Agriculture, Water resources, Forest & Bio-diversity and Coastal area management based on continuous assessment reports of IPCC.
- To develop multi sectoral cadastral level spatial information using renowned softwares such as SWAT, MIKE (Water sector), Infocrop, DSSAT (Agriculture), SImCLIM (coastal), Maxent (Forest) etc., to give a clear idea of climate impact and damages already caused on ecosystems and its future vulnerability on natural resources.
- To disseminate knowledge to stakeholders - planners, scientific world, NGO's and community in vernacular languages.

### **Activities of the Climate Studio**

- Provide access to climate and vulnerability information for evidence-based adaptation planning at National, State and local level.
- Training Programmes for assessing the climate change impact on sectors such as Water, Agriculture, Forestry, Coastal, Urban habitation, Health and Biodiversity etc.
- Build scientific capacity to develop climate projections and determine vulnerability to support adaptation activities.
- Develop a network of institutions involved in climate studies and related research to exchange data, techniques and also to pursue collaborative research activities.

### **Expected outcomes of the Climate Studio**

- District /Block level climate Snapshots
- Easy access to climate information through a web portal.

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- Periodical updation of international climate data to provide latest climate change information.
- Brining all institutes and research centers working in climate related research together to exchange data, techniques and to pursue collaborative research activities.
- Yellow page information linking all International and National scientific community involved in climate studies.
- Building Climate expertise especially among young people.

7. The Department of Environment has therefore requested the Government to accept the above proposal for functioning of **"Climate Studio along with the establishment of conference hall at Center for Climate Change and Disaster Management"** with a proposed outlay of Rs.5.73 crores funding support from Environment Management Agency of Tamil Nadu (EMAT)

8. After careful examination, the Government have decided to accept the proposal of the Director of Environment for operationalization of **"Climate Studio and establishment of a conference hall at the Center for Climate Change and Disaster Management"** at a total cost of Rs.3,45,19,800 (Rupees three crore forty five lakh nineteen thousand eight hundred only) for the period from 01.01.2022 to 31.12.2023. The above expenditure will be met out from Environment Management Agency of Tamil Nadu (EMAT) Fund subject to approval by the Board.

The breakup details of the sanctioned budget is as below:

	Details	Amount in Lakhs & Crore
1.	Technical manpower	1,73,76,000
2.	Capacity building	27,00,000
3.	Super computer maintenance and accessories including software	1,09,00,000
4.	Data procurement for sectors	13,00,000
5.	Contingencies (including consummates)	6,00,000
		<b>3,28,76,000/-</b>
	Overhead charges for University @ 5%	16,40,800/-
	<b>TOTAL</b>	<b>3,45,19,800/-</b>

9. The Government also direct that construction of conference hall and GIS / Carto lab renovation shall be carried out not exceeding Rs.35 lakhs and detailed estimates as per latest SOR be prepared before calling for tenders. Anna University shall furnish a concept note on potential application of the Climate studio and software (especially for the 7 vulnerable sectors) which this Department can share with all Department's. Anna University shall furnish quarterly returns on works completed and research undertaken. A training module for Government officials, students and NGO will also be prepared.

10. This order issues with the concurrence of Finance Department' vide U.O.No.259/JS(GKT)/2021, dated 16.12.2021.

(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.

**Copy to:-**

The Hon'ble Chief Minister's Office, Chennai -9.  
The Special/Senior Personal Assistant to the  
Hon'ble Minister for Environment, Climate Change and  
Youth Welfare and Sports Development,  
Secretariat, Chennai - 9.  
The Private Secretary to Additional Chief Secretary to Government,  
Finance Department, 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.  
Environment, Climate Change & Forest (FR.7/EC.1,EC.3) Dept.,  
Secretariat, Chennai -9.  
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*N-B*  
*22-2-22*  
SECTION OFFICER