



DISTRICT WISE CLIMATE CHANGE INFORMATION FOR THE STATE OF TAMIL NADU

TEMPERATURE PROJECTIONS FOR THIRUVALLUR



2.1 About Thiruvallur

Thiruvallur district, a newly formed district bifurcated from the erstwhile Chengalpattu district (on 1st January 1997), is located in the northeast part of Tamil Nadu. It lies in North latitude between 12°15' and 13°15' East longitude between 79°15' and 80°20'. It is bounded on the north by Andhra Pradesh State, on the east by the Bay of Bengal, on the southeast by Chennai district, on the south by Kanchipuram and on the west by Vellore district. The coastal region of the district is mostly flat and dreary; but in the other parts it is undulating and even hilly in some places.^{1,2}

2.2 Climate of Thiruvallur

Average summer temperature of Thiruvallur is 37.9°C and the average winter temperature is found to be 18.5 °C. Like other parts of Tamil Nadu, hot climate prevails during the month of April - May and humid climate during the rest of the year except December - February when it is slightly cold.^{1,2}

2.3 Temperature Projections for Thiruvallur

The annual maximum and minimum temperature normal (1970-2000) of Thiruvallur district are 33.3°C and 23.6°C respectively.³ Projections of maximum temperature over Thiruvallur for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate an increase of **0.9°C**, **2.0°C** and **3.0°C** respectively. Similarly, the projections of minimum temperature for the same periods indicate an increase of **1.1°C**, **2.3°C** and **3.4°C** respectively.

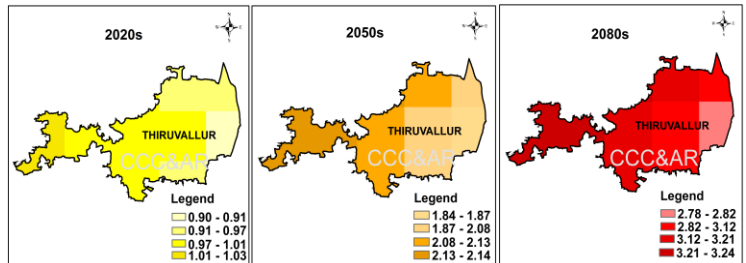


Fig 2.1 Changes in Max. Temperature for 2020s, 2050s & 2080s

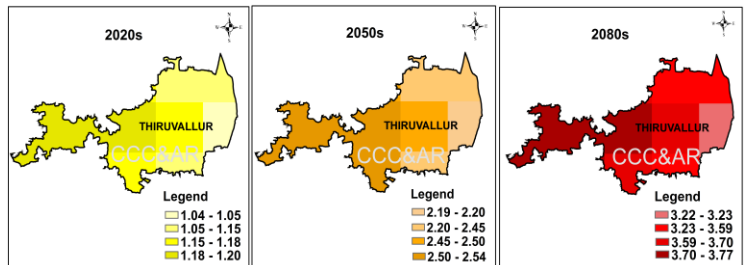


Fig 2.2 Changes in Min. Temperature for 2020s, 2050s & 2080s

Table 2.1 Changes in Temperature

Parameter	2020s	2050s	2080s
Maximum Temperature	+0.9°C	+2.0°C	+3.0°C
Minimum Temperature	+1.1°C	+2.3°C	+3.4°C

2.4 Key Findings

The average change of maximum and minimum temperature for Thiruvallur are expected to increase by **3.0°C** and **3.4°C** respectively by the end of the century.

2.5 References

1. http://tiruvallur.tn.nic.in/district_profile/profile.htm
2. ENVIS 2015. Thiruvallur District. ENVIS Centre Tamilnadu, Available at tnenvis.nic.in/files/THIRUVALLUR%20%20.pdf
3. IMD, 2013. Temperature of Thiruvallur District. Regional Meteorological Centre, Chennai.