



## DISTRICT WISE CLIMATE CHANGE INFORMATION FOR THE STATE OF TAMIL NADU TEMPERATURE PROJECTIONS FOR THENI



### 25.1 About Theni

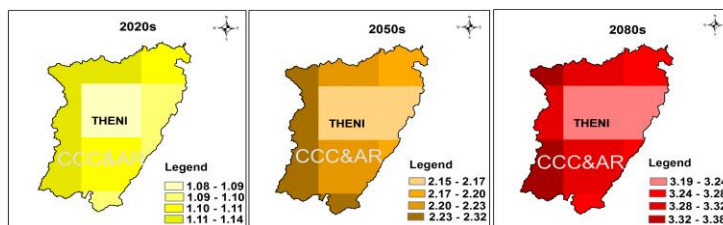
Theni district have a total geographical area of 2889.23 sq. km. The district lies between 77° 00' and 78° 30' of the Eastern longitude and between 9° 30' and 10° 30' of the Northern latitude. Theni district is sharing borders with Idukki district to the west and Dindigul district, Madurai district and Virudhunagar district to the east. There are three major irrigation projects in the district, viz., Periyar, Manjalar and Vaigai. <sup>1,2,3</sup>

### 25.2 Climate of Theni

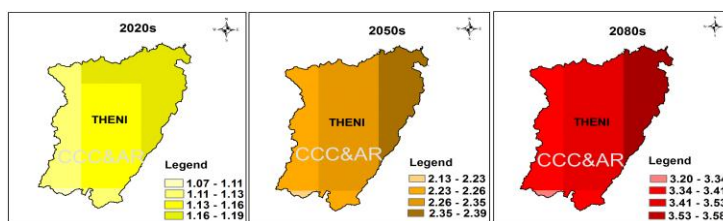
The Theni's climate is classified as tropical. The mean daily minimum temperature varies from 20.9°C (January) to 26.3°C (May) and mean daily maximum temperature varies from 29.7°C (December) to 37.5°C (May). It is relatively less hot in summer. The highest day temperature in summer is between 29°C to 37°C. <sup>2,3</sup>

### 25.3 Temperature Projections for Theni

The annual maximum and minimum temperature normal (1970-2000) of the district are 29.2 °C and 19.9°C respectively.<sup>4</sup> Projections of maximum temperature over Theni for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate an increase of **1.1°C**, **2.2°C** and **3.3°C** respectively. Similarly, the projections of minimum temperature for the same periods indicate an increase of **1.1°C**, **2.3°C** and **3.5°C** respectively.



**Fig 25.1** Changes in Max. Temperature for 2020s, 2050s & 2080s



**Fig 25.2** Changes in Min. Temperature for 2020s, 2050s & 2080s

**Table 25.1** Changes in Temperature

Parameter	2020s	2050s	2080s
Maximum Temperature	+1.1°C	+2.2°C	+3.3°C
Minimum Temperature	+1.1°C	+2.3°C	+3.5°C

### 25.4 Key Findings

The average change of maximum and minimum temperature for Theni district are expected to increase by **3.3°C** and **3.5°C** respectively by the end of the century.

### 25.5 References

1. <http://cgwb.gov.in/secr/EXECUTIVE%20SUMMARY-Theni.htm>
2. <http://www.onefivenine.com/india/villag/theni>
3. Central Ground Water Board 2009. District ground water brochure Theni district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at [cgwb.gov.in/District\\_Profile/TamilNadu/THENI.pdf](http://cgwb.gov.in/District_Profile/TamilNadu/THENI.pdf)
4. IMD, 2013. Temperature of Theni District. Regional Meteorological Centre, Chennai.