



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



## 30.1 About Tirunelveli

Tirunelveli district is having a geographical area of 6759 sq. km, in the southeastern portion of Tamil Nadu and is triangular in shape. It lies between 8°04' and 9°27' of the Northern latitude and 77°06' and 78°00' of Eastern longitude. The district is located in the southern part of Tamil Nadu and surrounded by Virudhunagar district on the north, Western Ghats on the west, Kanyakumari district on the south, Tuticorin district on the east.<sup>1,2,3</sup>

## 30.2 Climate of Tirunelveli

The district enjoys a sub tropical climate. In the day time the coastal regions are cooler than the interior parts by about a degree in summer. During May to June, the maximum temperature sometimes reaches 45°C. The mean minimum temperature is 22.9°C and mean maximum daily temperature is 33.5°C respectively.<sup>2,3</sup>

## 30.3 Temperature Projections for Tirunelveli

The annual maximum and minimum temperature normal (1970-2000) of the district are 34.6°C and 25°C respectively.<sup>3</sup> Projections of maximum temperature over Tirunelveli for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate an increase of 1.0°C, 2.1°C and 3.0°C respectively. Similarly, the projections of minimum temperature for the same periods indicate an increase of 1.0°C, 2.0°C and 3.1°C respectively.

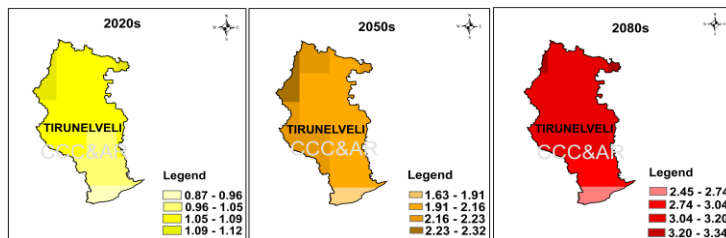


Fig 30.1 Changes in Max. Temperature for 2020s, 2050s & 2080s

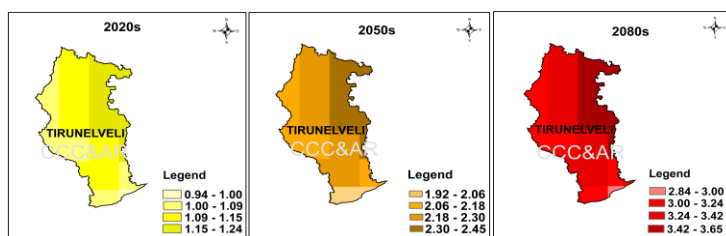


Fig 30.2 Changes in Min. Temperature for 2020s, 2050s & 2080s

Table 30.1 Changes in Temperature

Parameter	2020s	2050s	2080s
Maximum Temperature	+1.0°C	+2.1°C	+3.0°C
Minimum Temperature	+1.0°C	+2.0°C	+3.1°C

## 30.4 Key Findings

The average change of maximum and minimum temperature for Tirunelveli district are expected to increase by 3.0°C and 3.1°C respectively by the end of the century.

## 30.5 References

1. ENVIS 2015. Tirunelveli District. ENVIS Centre Tamilnadu, Available at [tnvis.nic.in/files/ TIRUNELVELI %20.pdf](http://tnvis.nic.in/files/TIRUNELVELI%20.pdf)
2. Central Ground Water Board 2009. District ground water brochure Tirunelveli district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at [cgwb.gov.in/District\\_Profile/TamilNadu/Tirunelveli.pdf](http://cgwb.gov.in/District_Profile/TamilNadu/Tirunelveli.pdf)
3. IMD, 2013. Temperature of Tirunelveli District. Regional Meteorological Centre, Chennai.