



DISTRICT WISE CLIMATE CHANGE INFORMATION FOR THE STATE OF TAMIL NADU RAINFALL 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. ^{1,2,3}

25.2 Climate of Theni

The district receives rainfall under the influence of both Southwest and Northeast monsoon. Average annual rainfall is of the order of 791.2 mm out of which 47% (375.5) received during Northeast monsoon and 22% (172.7) is received during Southwest monsoon. Precipitation is the lowest in January, with an average of 16 mm. In October, the precipitation reaches its peak, with an average of 203 mm. ^{3,4}

25.3 Rainfall Projections for Theni

The annual rainfall normal (1970-2000) of Theni district is 833 mm. ⁵ Projections of rainfall over Theni for the period 2010-2040 (2020s) show a general decrease of **2.0%** with reference to the baseline (1970-2000), but for 2040-2070 (2050s) and 2070-2100 (2080s) it indicate an increase of **2.0%** and **1.0%** respectively.

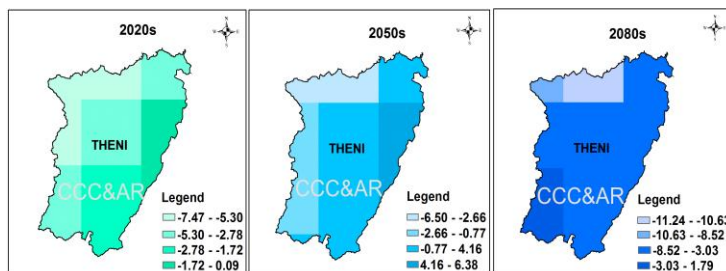


Fig 25.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 25.1 Percent change in Annual Rainfall

| Parameter | 2020s | 2050s | 2080s |
|-----------------|-------|-------|-------|
| Annual Rainfall | -2.0% | +2.0% | +1.0% |

25.4 Key Findings

The annual rainfall for Theni district may increase by **1.0%** by the end of the century as per the emission scenario of A1B.

25.5 References

- <http://cgwb.gov.in/secr/EXECUTIVE%20SUMMARY-Theni.htm>
- <http://www.onefivenine.com/india/villag/theni>
- 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://en.climate-data.org/location/24004/>
- IMD, 2013. Rainfall of Theni District. Regional Meteorological Centre, Chennai.