



DISTRICT WISE CLIMATE CHANGE INFORMATION FOR THE STATE OF TAMIL NADU RAINFALL PROJECTIONS FOR VELLORE



3.1 About Vellore

Vellore is one of the biggest districts in Tamil Nadu. The district is primarily agrarian with majority of its population involved in agriculture. Leather based industry is the main industry in this district. Vellore district has an area of 6077 km². Vellore district lies between 12°15' to 13°15' North latitudes and 78°20' to 79°50' East longitudes in Tamil Nadu State.^{1,2}

3.2 Climate of Vellore

The average annual rainfall is 795mm, out of which Northeast monsoon contributes to 535mm and the Southwest monsoon contributed to 442mm. The Southwest monsoon, with an onset in June and lasting up to August, brings scanty rainfall. The bulk of the rainfall is received during the Northeast monsoon in October, November and December. The humidity ranges from 40%–63% during summer and 67%–86% during winter.^{1,2}

3.3 Rainfall Projections for Vellore

The annual rainfall normal (1970-2000) of Chennai district is 917mm.³ The annual rainfall projection for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) indicate a general decrease of **2.0%**, **5.0%** and **5.0%** respectively with respect to the baseline (1970-2000).

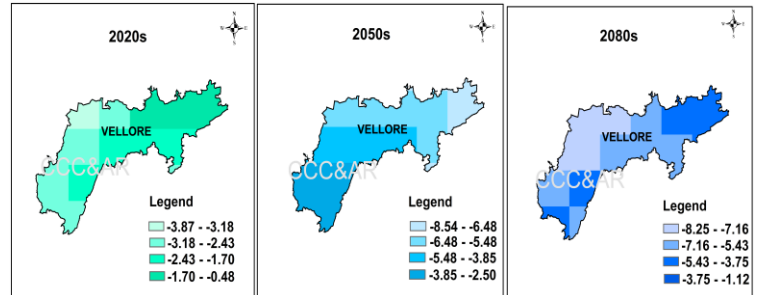


Fig 3.1 Percent change in Annual Rainfall for the period 2020s,2050s and 2080s

Table 3.1 Percent change in Annual Rainfall

| Parameter | 2020s | 2050s | 2080s |
|-----------------|-------|-------|-------|
| Annual Rainfall | -2.0% | -5.0% | -5.0% |

3.4 Key Findings

The annual rainfall for Vellore may reduce by **5.0%** by the end of the century as per the emission scenario of A1B.

3.5 References

1. <http://www.velloreonline.com/Geologicalinfo.php>
2. Central Ground Water Board 2009. District groundwater brochure Vellore district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at cgwb.gov.in/district_profile/tamilnadu/vellore.pdf
3. IMD, 2013. Temperature of Vellore District. Regional Meterological Centre, Chennai.