



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



9.1 About Salem

Salem district lies between 11° 14' and 12° 53' North of latitude and between 77°44' and 78° 50' East of longitude, covering an area of 5245 sq. km. Salem is a Geologist's paradise, surrounded by hills and the landscape dotted with hillocks.^{1,2}

9.2 Climate of Salem

The district receives the rain under the influence of both Southwest and Northeast monsoons. The Northeast monsoon chiefly contributes to the rainfall in the district. The normal annual rainfall over the district varies from about 800 mm to 1600 mm. It is the minimum around Sankari (800 mm) in the southwestern part of the district. It gradually increases towards north, northeast and east and attains a maximum around Yercaud (1594.3 mm) in the northern part. The Normal Rainfall of the district during Southwest monsoon is 380 mm and during Northeast monsoon is 347 mm.^{1,2}

9.3 Rainfall Projections for Salem

The annual rainfall normal (1970-2000) of Salem district is 898 mm.³ Projections of rainfall over Salem for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate a decrease of **2.0%**, **2.0%** and **7.0%** respectively.

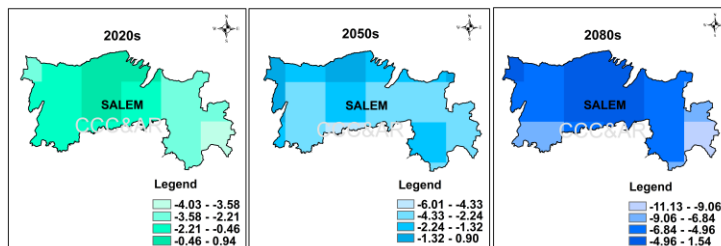


Fig 9.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 9.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	-2.0%	-2.0%	-7.0%

9.4 Key Findings

The annual rainfall for Salem district may reduce by **7.0%** by the end of the century as per the emission scenario of A1B.

9.5 References

1. Department of Economics and Statistics 2011. District Profile Salem District. Available at: <http://www.salem.tn.nic.in/default.htm>
2. Central Ground Water Board 2008. District groundwater brochure Salem district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at : cgwb.gov.in/District_Profile/TamilNadu/Salem.pdf.
3. IMD, 2013. Rainfall of Salem District. Regional Meteorological Centre, Chennai.