



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

30.2 Climate of Tirunelveli

The district receives the rain from October to the middle of January. During this Southwest monsoon season the rainfall is more in the western parts of the district. November is generally the rainiest month. The average annual rainfall over the district is 879 mm. It is the maximum around Senkottai, Sankarankoil and all along the coast and it decreases towards inland. The areas around Ambasamudram, Tirunelveli and Kadayanallur receive minimum rainfall.^{1,2}

30.3 Rainfall Projections for Tirunelveli

The annual rainfall normal (1970-2000) of Tirunelveli district is 736 mm.³ Projections of rainfall 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 **2.0%**, **6.0%** and **11.0%** respectively.

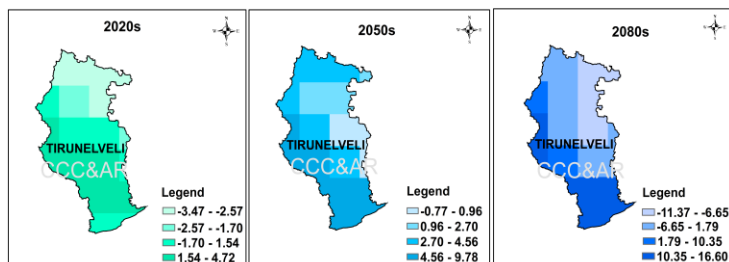


Fig 30.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 30.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	+2.0%	+6.0%	+11.0%

30.4 Key Findings

The annual rainfall for Tirunelveli district may increase by **11.0%** by the end of the century as per the emission scenario of A1B.

30.5 References

1. ENVIS 2015. Tirunelveli District. ENVIS Centre Tamilnadu, Available at [tnevis.nic.in/files/TIRUNELVELI %20.pdf](http://tnevis.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
3. IMD, 2013. Rainfall of Tirunelveli District. Regional Meteorological Centre, Chennai.