



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



32.1 About Kanyakumari

Kanyakumari is the southernmost district of Tamil Nadu. The district lies between 77°15' and 77°36' of the Eastern longitudes and 8°03' and 8°35' of the Northern latitudes. The district is bound by Tirunelveli district on the north and the east. The southeastern boundary is the Gulf of Mannar. On the south and the south west, the boundaries are the Indian Ocean and the Arabian Sea. On the west and north west it is bound by Kerala. With an area of 1672 sq. km it occupies 1.29% of the total extent of Tamil Nadu.^{1,2}

32.2 Climate of Kanyakumari

The average annual rainfall over the district varies from about 826 to 1456 mm. It is the minimum around Kanyakumari in the southeastern part of the district. It gradually increases towards west, north and northwest and attains a maximum around Thackalay. Southwest monsoon accounts for 32.6%, Northeast monsoon being 42.5%, winter being 3.3% and summer being 21.6% of total rainfall.^{1,2}

32.3 Rainfall Projections for Kanyakumari

The annual rainfall normal (1970-2000) of Kanyakumari district is 1006 mm.³ Projections of rainfall over Kanyakumari for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate an increase of **3.0%**, **9.0%** and **15.0%** respectively.

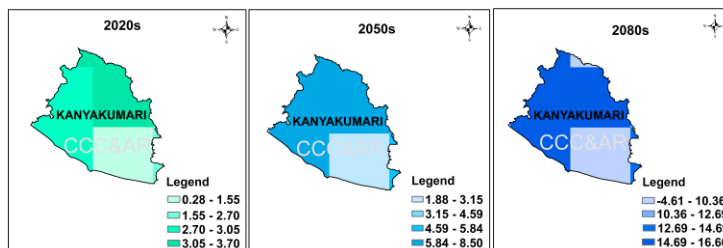


Fig 32.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 32.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	+3.0%	+9.0%	+15.0%

32.4 Key Findings

The annual rainfall for Kanyakumari district may increase by **15.0%** by the end of the century as per the emission scenario of A1B.

32.5 References

1. ENVIS 2015. Kanyakumari District. ENVIS Centre Tamilnadu, Available at tnenvis.nic.in/files/KANYAKUMARI%20%20.pdf
2. Central Ground Water Board 2009. District ground water brochure Kanyakumari district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at cgwb.gov.in/District_Profile/TamilNadu/Kanyakumari.pdf
3. IMD, 2013. Rainfall of Kanyakumari District. Regional Meteorological Centre, Chennai.