



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



16.1 About The Nilgiris

The Nilgiris is India's first biosphere. It has been declared as one of the 14 'hotspots' of the world because of its unique bio-diversity. The Nilgiris is a part of the Western Ghats. Ooty the "Queen of Hill Stations", Coonoor 19 kms from Ooty and Kotagiri 31 kms from Ooty, are the three hill stations of this district. The district is located between 11°12' to 11°37' North latitude and between 76°30' to 76°55' East longitude. The district covers an area of 2452.50 sq. km.^{1,2,3}

16.2 Climate of The Nilgiris

The climate of the Nilgiri district is temperate and salubrious throughout the year. Rainfall data from four stations over the period 1901-1950 were utilised and a perusal of the analysis shows that the average annual rainfall of the district is 1920 mm. It is minimum around ootacamund (1376.20 mm) in the eastern part of the district. It gradually increases towards west and attains a maximum around Gudalur (2269.00 mm).^{1,3}

16.3 Rainfall Projections for The Nilgiris

The annual rainfall normal (1970-2000) of the Nilgiris district is 1695 mm.⁴ Projections of rainfall over the Nilgiris for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate an increase of **1.0%**, **6.0%** and **13.0 %** respectively.

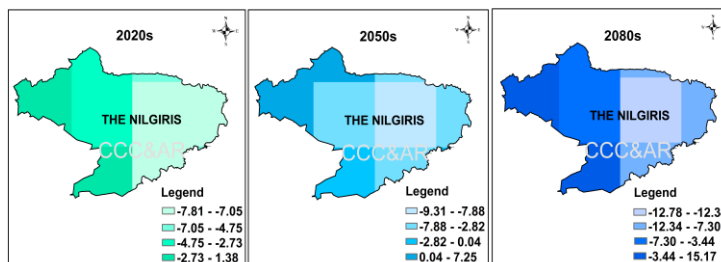


Fig 16.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 16.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	+1.0%	+6.0%	+13.0%

16.4 Key Findings

The annual rainfall for the Nilgiris district may increase by **13.0%** by the end of the century as per the emission scenario of A1B.

16.5 References

- <http://nilgiris.nic.in/>
- <http://www.mapsofindia.com/maps/tamilnadu/districts/nilgiri.htm>
- Central Ground Water Board 2009. District ground water brochure Nilgiris district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at cgwb.gov.in/District_Profile/TamilNadu/Nilgiri.pdf
- IMD, 2013. Rainfall of Nilgiris District. Regional Meteorological Centre, Chennai.