



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



31.1 About Thoothukudi

Thoothukudi traditionally known as “Pearl City” on account of the prevailing Pearl fish in the past. The district is situated in between latitude 8°4' and 9°27' N and longitude 77°45' and 78°20' E with an area of 4621 sq. km. It is a coastal district and is bounded by the districts of Tirunelveli on the north, the districts of Virudhunagar and Ramanathapuram, on the east and by Gulf of Mannar on the southeast and by Tirunelveli district on the west and southwest.^{1,2,3}

31.2 Climate of Thoothukudi

Thoothukudi depends mainly on Northeast monsoon rains, which are brought by the troughs of low pressure establishing in south Bay of Bengal. The average annual rainfall over the district varies from about 570 mm to 740 mm. It is the minimum around Arasadi (577.4 mm) and Thoothukudi (582.8 mm) in the central eastern part of the district. It gradually increases towards south, west and north and attains a maximum around Kayattar (722.5 mm) and Kovilpatti (734.8 mm) in the northwestern part.

31.3 Rainfall Projections for Thoothukudi

The annual rainfall normal (1970-2000) of Thoothukudi district is 655 mm.⁵ Projections of rainfall over Thoothukudi 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%**, **8.0%** and **10.0%** respectively.

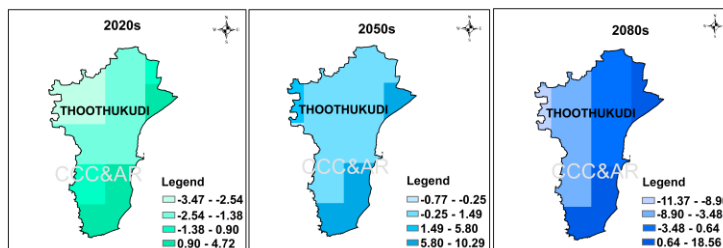


Fig 31.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 31.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	+2.0%	+8.0%	+10.0%

31.4 Key Findings

The annual rainfall for Thoothukudi district may increase by **10.0%** by the end of the century as per the emission scenario of A1B.

31.5 References

- <http://www.mapsofindia.com/maps/tamilnadu/districts/tuticorin.htm>
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