



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



10.1 About Cuddalore

The Cuddalore district lies on the east coast between 78°38' and 80° East longitude and 5°5'/11°11' and 12°35' North latitude. It is bounded on the north by Villupuram district, on the south by Nagapattinam district, on the west by Perambalur and Villupuram districts and on the east by Bay of Bengal. The Southern boundary follows for the greater part of the length of two rivers - the Vellar and the Coloroon. The total geographical area of the district is about 3,678 sq. km.^{1,2,3}

10.2 Climate of Cuddalore

The normal annual rainfall over the district varies from about 1050 mm to about 1400 mm. It is the minimum around Vriddhachalam (1051.3 mm). It gradually increases and reaches a maximum around Chidambaram (1402.6 mm) and Portonovo (1347.1 mm). From the month of August to December, the district receives a rainfall, which is more than the annual average rainfall. This is due to Northeast and Southwest monsoons.^{1,2,3}

10.3 Rainfall Projections for Cuddalore

The annual rainfall normal (1970-2000) of Cuddalore district is 1235 mm.⁴ Projections of rainfall over Cuddalore for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate a decrease of **1.0%**, **1.0%** and **1.0%** respectively.

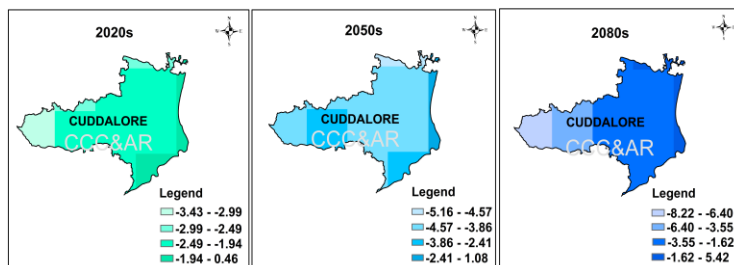


Fig 10.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 10.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	-1.0%	-1.0%	-1.0%

10.4 Key Findings

The annual rainfall for Cuddalore district may reduce by **1.0%** by the end of the century as per the emission scenario of A1B.

10.5 References

- <http://cuddalore.tn.nic.in/profile.htm>
- Central Ground Water Board 2009. District ground water brochure Cuddalore district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at cgwb.gov.in/District_Profile/TamilNadu/cuddalore.pdf
- ENVIS 2015. Cuddalore District. ENVIS Centre Tamilnadu, Available at tnenvis.nic.in/files/CUDDALORE.pdf
- IMD, 2013. Rainfall of Cuddalore District. Regional Meterological Centre, Chennai.