



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



### 21.1 About Thiruvarur

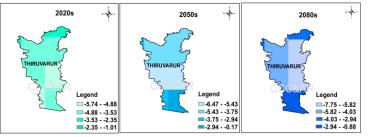
The district of Thiruvarur was carved out as a separate district by detaching Valangaiman Taluk from Thanjavur district and Thiruvarur, Nannilam, Kudavasal, Needamangalam, Mannargudi, Thirutturaippoondi Taluks from Nagappatinam district on 01.01.1997. It lies between 10°16' and 11°50' North latitude and 79°27' and 79°50' East longitude. The total area of the district is 2377 sq. km. <sup>1,2,3,4</sup>

### 21.2 Climate of Thiruvarur

The normal annual rainfall in the district ranges from 1100 to 1260 mm. It gradually increases towards east and south and attains a maximum around Thiruvarur in the eastern part. It is observed that the chances of receiving normal annual rainfall vary from 40 percentages at Needamangalam to 51 percentages at Thiruthuraipoondi. These changes are the highest (50-55 percentage) in a small area around Thiruthuraipoondi in the eastern part. In the rest of the district these chances are in the range 40-50 percentages. <sup>3,4</sup>

## 21.3 Rainfall Projections for Thiruvarur

The annual rainfall normal (1970-2000) of Thiruvarur district is  $1129 \text{ mm.}^5$  Projections of rainfall over Thiruvarur for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate a general decrease of **3.0%**, **2.0%** and **1.0%** respectively.



**Fig 21.1** Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

#### Table 21.1 Percent change in Annual Rainfall

Parameter	2020s	2050s	2080s
Annual Rainfall	-3.0%	-2.0%	-1.0%

## 21.4 Key Findings

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

### 21.5 References

- 1. http://www.tiruvarur.tn.nic.in/
- 2. http://www.mapsofindia.com/maps/tamilnadu/ districts/thiruvarur.htm
- 3. ENVIS 2015. Thiruvarur District. ENVIS Centre Tamilnadu, Available at tnenvis.nic.in/files/THIRUVARUR%20.pdf
- Central Ground Water Board 2009. District ground water brochure Thiruvarur district, Tamil nadu. Central Ground Water Board South Eastern Coastal Region, Chennai. Available at cgwb.gov.in/District\_Profile/TamilNadu/Thiruvaru.pdf
- 5. IMD, 2013.Rainfall of Thiruvarur District. Regional Meterological Centre, Chennai.

**Citation:** CCC&AR and TNSCCC (2015). Climate Change Projection (Rainfall) for Thiruvarur. In: District-Wise Climate Change Information for the State of Tamil Nadu. Centre for Climate Change and Adaptation Research (CCC&AR), Anna University and Tamil Nadu State Climate Change Cell (TNSCCC), Department of Environment (DoE), Government of Tamil Nadu, Chennai, Tamil Nadu, India. Available at URL. www.tnsccc.in