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

### 6.1 About Tiruvannamalai

Tiruvannamalai district came into existence on $30^{\text {th }}$ September 1989 after the bifurcation of the erstwhile North Arcot district. It lies between $11^{\circ} 55^{\prime}$ and $13^{\circ} 15^{\prime}$ North of latitude and between $78^{\circ} 20^{\prime}$ and $79^{\circ} 50^{\prime}$ East of longitude, covering an area of $6191 \mathrm{sq} . \mathrm{km}$. The district is bounded on the north and west by Vellore district, on the southwest by Dharmapuri district, on the south by Villupuram district and on the east by Kanchipuram district. Agriculture is the main occupation of the people of Tiruvanamalai district, who are engaged in the cultivation of rice, millets, cereals, pulses, sugarcane, groundnut, gingely, and cotton. ${ }^{1,2,3,4}$

### 6.2 Climate of Tiruvannamalai

The average rainfall of the district is 1074.70 mm . Nearly 45 per cent of the rainfall is received during the Northeast monsoon period (October to December).The normal rainfall of the district during Southwest monsoon is 468.1 mm and during Northeast monsoon is $446.5 \mathrm{~mm} .{ }^{1,2,3,4,5}$

### 6.3 Rainfall Projections for Tiruvannamalai

The annual rainfall normal (1970-2000) of the district is $1046 \mathrm{~mm} .{ }^{6}$ Projections of rainfall over Tiruvannamalai for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate a decrease of $\mathbf{2 . 0 \%}, \mathbf{5 . 0 \%}$ and $\mathbf{4 . 0 \%}$ respectively.


Fig 6.1 Percent change in Annual Rainfall for the period 2020s, 2050s and 2080s

Table 6.1 Percent change in Annual Rainfall

| Parameter | $\mathbf{2 0 2 0 s}$ | 2050s | 2080s |
| :--- | :--- | :--- | :--- |
| Annual Rainfall | $-2.0 \%$ | $-5.0 \%$ | $-4.0 \%$ |

### 6.4 Key Findings

The annual rainfall for Tiruvannamalai district may reduce by $\mathbf{4 . 0 \%}$ by the end of the century as per the emission scenario of A1B.

### 6.5 References

1. http://www.tiruvannamalai.tn.nic.in/
2. http://www.tiruvannamalai.tn.nic.in/Splproj/agri.html
3. http://www.twadboard.gov.in/twad/tiruvannamalai_ dist.aspx
4. http://www.mapsofindia.com/maps/tamilnadu/ districts/tirvannamalai.htm
5. District Collector, Tiruvannamalai 2014.

Tiruvannamalai District - at a glance. Available at www.tiruvannamalai.tn.nic.in/profile/dprofile14.pdf
6. IMD, 2013.Rainfall of Tiruvannamalai District.

Regional Meterological Centre, Chennai.

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[^0]:    Citation: CCC\&AR and TNSCCC (2015). Climate Change Projection (Rainfall) for Tiruvannamalai. 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

