

3. CLIMATE AND RAINFALL**3.1 TEMPERATURE AT SELECT STATIONS IN TAMIL NADU 2020-21
(in Celsius)****Station: NUNGAMBAKKAM (Chennai North)**

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	40.6	37.3	25.4	28.9	63	64
	July	38.3	34.4	24.2	26.9	82	75
	August	36.5	34.1	24.6	27.1	81	77
	September	36.6	33.6	24.0	26.5	81	77
	October	37.1	33.2	23.6	26.2	79	76
	November	33.3	30.5	20.8	24.3	85	80
2021	December	31.2	29.4	20.7	23.2	83	73
	January	32.0	29.9	20.6	23.4	85	74
	February	33.5	30.8	20.4	22.4	76	63
	March	38.3	33.3	22.6	24.8	77	65
	April	41.2	35.0	23.1	27.8	74	69
	May	40.3	35.9	24.6	28.8	66	68

Station: MEENAMBAKKAM (PBO Chennai)

<i>Year and Month</i>		<i>Maximum</i>		<i>Mean Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	40.7	38.0	25.3	28.1	79	61
	July	38.2	34.3	22.6	25.8	88	67
	August	36.3	33.9	23.6	26.4	88	70
	September	35.8	33.3	23.1	25.4	79	73
	October	37.2	33.3	23.2	25.3	88	72
	November	33.1	30.6	19.3	23.3	79	79
2021	December	30.8	29.4	19.4	21.9	88	72
	January	32.2	29.8	20.4	22.9	88	71
	February	34.6	31.0	19.4	21.6	81	60
	March	41.3	34.3	21.6	24.0	77	57
	April	41.8	35.9	23.0	27.0	74	65
	May	40.1	36.8	23.1	27.9	67	63

**3.1 TEMPERATURE AT SELECT STATIONS
IN TAMIL NADU 2020-21 (in Celsius) (Contd.)**

Station: SALEM

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	38.3	36.2	23.4	25.1	75	50
	July	37.3	33.4	21.3	23.6	84	62
	August	36.5	33.2	21.2	23.7	83	58
	September	34.7	32.3	21.2	22.8	84	69
	October	34.5	32.4	20.8	21.7	79	59
	November	33.6	31.6	17.6	21.7	81	62
	December	32.6	29.9	18.0	20.7	80	60
2021	January	33.9	30.4	17.4	20.9	80	58
	February	37.6	33.7	17.6	20.7	72	34
	March	39.8	37.8	19.7	22.6	73	26
	April	42.8	38.3	21.6	25.3	72	40
	May	39.1	37.1	21.6	25.3	73	46

Station: AMS TIRUCHIRAPPALLI

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	40.6	38.4	24.2	27.1	63	47
	July	39.6	36.0	23.6	25.8	72	53
	August	39.1	36.1	23.2	25.7	71	50
	September	37.2	34.5	22.7	24.9	78	62
	October	37.4	34.9	23.0	24.8	76	59
	November	36.0	32.4	21.4	23.8	83	72
	December	32.5	29.3	19.4	21.7	86	76
2021	January	32.3	29.8	18.8	22.0	89	73
	February	36.5	32.9	17.6	20.9	80	46
	March	40.8	36.2	20.5	23.4	76	40
	April	42.5	39.2	24.1	26.6	69	44
	May	41.0	38.5	23.4	26.8	68	52

**3.1 TEMPERATURE AT SELECT STATIONS
IN TAMIL NADU 2020-21 (in Celsius) (Contd.)**

Station: KODAIKANAL

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	22.1	19.4	11.5	12.8	74	88
	July	20.0	18.1	11.2	12.1	85	94
	August	20.6	18.0	11.0	12.0	83	93
	September	20.0	17.1	10.4	11.7	87	94
	October	20.4	17.8	9.6	11.3	81	92
	November	19.5	16.2	8.0	10.2	88	94
	December	20.2	15.9	5.9	10.2	81	90
2021	January	19.3	16.4	6.9	9.6	75	87
	February	21.7	18.5	6.5	9.1	60	77
	March	22.6	19.1	6.5	10.0	53	76
	April	22.5	19.7	9.9	11.9	71	87
	May	20.5	18.9	11.1	12.4	80	93

Station: AMS-MADURAI

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	41.6	39.1	22.6	26.7	60	43
	July	39.7	36.7	23.6	25.8	67	51
	August	40.4	38.1	22.6	25.7	63	46
	September	38.7	35.0	22.5	24.6	73	60
	October	39.6	35.9	22.1	24.2	70	56
	November	35.4	31.6	20.7	23.2	81	72
	December	31.8	29.6	20.1	21.4	79	69
2021	January	32.8	29.7	18.5	22.4	84	67
	February	36.5	33.0	17.8	21.6	72	44
	March	40.7	36.2	20.6	23.7	69	37
	April	42.3	38.1	22.0	24.8	70	45
	May	41.0	37.6	24.4	26.0	66	54

**3.1 TEMPERATURE AT SELECT STATIONS
IN TAMIL NADU 2020-21 (in Celsius) (Contd.)**

Station: KANNIYAKUMARI

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2020	June	34.2	31.9	22.9	25.3	81	79
	July	35.5	32.1	22.4	25.1	80	79
	August	33.1	30.7	22.5	24.5	81	82
	September	34.3	30.0	22.4	23.8	85	84
	October	33.4	32.2	22.1	25.3	79	84
	November	35.2	31.8	22.4	24.5	77	76
	December	33.3	31.3	22.6	24.1	77	70
2021	January	33.0	30.6	22.0	23.6	79	73
	February	34.9	32.9	21.8	24.0	68	65
	March	35.5	33.2	22.4	25.1	71	68
	April	35.6	34.0	25.4	26.4	71	73
	May	35.5	32.4	22.6	25.2	80	79

Source: Regional Meteorological Centre, Chennai-6

3.1 TEMPERATURE AT SELECT STATIONS IN TAMIL NADU 2019-20 (in Celsius)

Station: NUNGAMBAKKAM (Chennai North)

Year and Month		Maximum		Minimum		Humidity in %	
		Highest	Mean	Lowest	Mean	8.30 Hours	17.30 Hours
2019	June	41.5	39.0	23.4	29.7	66	70
	July	40.4	36.0	23.8	27.6	74	70
	August	38.3	35.3	23.2	26.8	72	65
	September	36.8	33.5	22.9	25.7	83	78
	October	34.4	32.1	23.9	25.8	86	78
	November	35.1	32.0	22.8	25.1	87	79
2020	December	31.0	29.8	22.0	23.8	86	80
	January	32.2	30.5	18.7	22.5	86	74
	February	33.0	31.6	20.3	23.1	83	75
	March	34.4	33.0	23.7	25.5	85	76
	April	36.2	34.3	23.1	27.4	84	80
	May	41.8	36.8	27.9	29.4	76	75

3.1 TEMPERATURE AT SELECT STATIONS IN TAMIL NADU 2019-20 (in Celsius)

Station: MEENAMBAKKAM (PBO Chennai)

Year and Month		Maximum		Mean Minimum		Humidity in %	
		Highest	Mean	Lowest	Mean	8.30 Hours	17.30 Hours
2019	June	43.0	39.8	22.5	28.0	58	56
	July	40.2	36.0	23.0	26.4	69	61
	August	38.5	34.9	23.0	25.9	70	61
	September	36.4	33.5	22.2	25.3	79	67
	October	36.0	32.1	23.0	24.9	84	76
	November	34.7	31.7	22.6	24.3	85	73
2020	December	31.0	29.7	21.1	23.1	84	73
	January	32.7	30.5	18.2	21.8	88	67
	February	34.4	32.0	19.6	24.4	82	63
	March	35.2	33.7	22.4	24.4	79	63
	April	38.0	35.5	22.6	26.2	77	65
	May	42.5	38.1	25.7	28.5	70	63

Station: SALEM

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2019	June	39.3	36.9	23.5	26.3	73	44
	July	37.9	35.4	23.0	24.9	75	50
	August	37.0	33.4	23.0	24.1	81	59
	September	35.2	33.1	22.7	24.0	84	63
	October	34.4	32.0	22.4	24.0	83	70
	November	33.5	31.5	21.4	23.3	81	62
	December	32.5	30.1	20.3	21.6	80	60
2020	January	35.5	32.9	18.5	21.2	79	43
	February	36.5	34.4	17.8	19.8	72	38
	March	39.3	37.3	19.2	23.5	72	33
	April	40.1	38.0	22.3	25.2	72	38
	May	40.7	39.1	23.8	26.5	70	40

**3.1 TEMPERATURE AT SELECT STATIONS
IN TAMIL NADU 2019-20 (in Celsius) (Contd.)**

Station: AMS TIRUCHIRAPPALLI

<i>Year and Month</i>		<i>Maximum</i>		<i>Minimum</i>		<i>Humidity in %</i>	
		<i>Highest</i>	<i>Mean</i>	<i>Lowest</i>	<i>Mean</i>	<i>8.30 Hours</i>	<i>17.30 Hours</i>
2019	June	41.1	39.6	26.2	28.1	59	37
	July	40.4	38.1	24.4	27.3	61	42
	August	40.0	36.6	22.6	26.5	66	49
	September	38.7	35.5	23.4	25.6	76	57
	October	36.5	33.2	22.6	24.9	82	71
	November	34.9	32.3	22.4	24.1	85	71
	December	31.7	29.8	21.0	22.5	86	73
2020	January	34.0	32.0	18.6	21.6	86	58
	February	35.8	34.2	19.2	21.8	79	48
	March	38.9	37.0	21.8	24.1	74	42
	April	41.1	38.9	22.8	26.4	71	44
	May	42.5	39.9	23.6	27.6	67	43

Station: KODAIKANAL

Year and Month		Maximum		Minimum		Humidity in %	
		Highest	Mean	Lowest	Mean	8.30 Hours	17.30 Hours
2019	June	22.5	20.1	10.8	13.0	70	86
	July	20.3	18.3	11.3	12.5	78	86
	August	19.6	17.5	10.6	12.1	83	87
	September	19.7	17.5	10.4	11.9	87	92
	October	19.2	17.1	10.8	11.8	89	95
	November	19.7	16.8	7.8	10.1	85	90
	December	19.5	16.9	7.3	10.3	87	91
2020	January	21.8	18.5	7.6	9.9	51	82
	February	22.5	19.0	8.4	10.0	55	85
	March	21.7	20.0	9.6	11.4	64	87
	April	22.3	20.5	10.5	12.4	69	85
	May	22.7	20.7	12.5	13.7	69	84

3.1 TEMPERATURE AT SELECT STATIONS IN TAMIL NADU 2019-20 (in Celsius) (Contd.)

Station: AMS-MADURAI

Year and Month		Maximum		Minimum		Humidity in %	
		Highest	Mean	Lowest	Mean	8.30 Hours	17.30 Hours
2019	June	41.2	39.7	25.3	27.3	58	43
	July	41.2	38.3	25.0	26.6	58	45
	August	40.4	37.4	23.6	26.1	66	50
	September	40.4	36.2	22.6	25.4	72	57
	October	35.8	32.5	22.4	24.4	81	72
	November	35.1	32.6	21.6	24.0	79	70
	December	32.0	30.2	20.6	22.6	82	72
2020	January	35.0	33.0	19.1	33.0	75	53
	February	35.8	34.8	20.5	22.6	72	45
	March	38.6	37.2	22.7	24.6	69	36
	April	40.2	38.6	22.2	26.0	67	41
	May	41.4	39.0	23.0	26.9	66	48

Station: KANNIYAKUMARI

Year and Month		Maximum		Minimum		Humidity in %	
		Highest	Mean	Lowest	Mean	8.30 Hours	17.30 Hours
2019	June	34.6	32.2	23.0	25.8	83	82
	July	34.4	30.9	22.6	24.7	85	84
	August	33.4	30.1	21.6	24.4	86	85
	September	32.6	31.0	22.4	24.7	83	83
	October	32.8	30.9	22.2	24.2	87	83
	November	34.1	32.0	22.6	24.8	79	77
	December	32.4	30.4	22.3	24.4	79	76
2020	January	33.7	32.4	22.2	24.3	76	71
	February	34.7	33.3	23.4	24.9	71	68
	March	34.8	33.5	25.1	25.9	72	71
	April	36.8	34.7	24.0	26.7	71	69
	May	36.3	33.9	22.6	26.5	78	79

Source: Regional Meteorological Centre, Chennai-6

3 .2 DISTRIBUTION OF DISTRICTS BY RANGE OF RAINFALL 2020-21*Distribution of districts by range of rainfall*

<i>Range of Rainfall</i>	<i>Actual Rainfall occurred</i>	<i>Normal Rainfall expected</i>
Below 800 mm	Namakkal,,Erode, Karur,Thoothukudi, Kallakurichi, Ranipet,Tirupathur	Namakkal,Tiruppur,Erode, Tiruchirapalli,Karur,Theni, Virudhunagar,Thoothukudi , Kallakurichi, Thenkasi,Ranipet , Thirupathur & Chengalpattu.
801 mm to 1000 mm	Dharmapuri,Krishnakiri, Tiruchi,Tiruppur, Thenkasi	Vellore,Salem,Dharmapuri, Krishnagiri,Perambalur, Pudukottai,Madurai,Dindigul, Ramanathapuram,Sivagangai, Tirunelveli.
1001 mm to 1200 mm	Vellore, Thiruvannamalai , Salem, Pudukkottai , Madurai , Theni , Ramanathapuram , Virudhunagar, Chengalpattu .	Kancheepuram , Thiruvallur,Cuddalore,Villupuram, Thiruvannamalai,Thanjavur, Thiruvarur,Ariyalur
1201 mm to 1400 mm	Kancheepuram, Thiruvallur, Villupuram, Perambalur, Thanjavur, Dindigul, Sivagangai, Tirunelveli, Ariyalur .	Chennai, Kanniyakumari,Nagapattinam Coimbatore
1401 mm to 1800 mm	Chennai , Cuddalore , Thiruvarur,Nagapattinam,Kanni yakumari	The Nilgiris
1801 mm and above	The Nilgiris, Coimbatore	-

Source: Regional Meteorological Centre, Chennai-6.

3.3 RAINFALL BY DISTRICTS 2020-21

(in mm)

District	South West Monsoon (June '20 to September '20)		North East Monsoon (October'20 to December'20)	
	Actual	Normal	Actual	Normal
1	2	3	4	5
1. Chennai	443.6	439.6	1040.8	784.0
2. Kancheepuram	423.2	479.4	763.1	591.4
3. Thiruvallur	452.5	455.9	714.6	639.1
4. Cuddalore	340.4	356.7	946.4	704.6
5. Villupuram	318.7	405.0	802.4	554.3
6. Vellore	598.2	453.4	412.3	389.8
7. Tiruvannamalai	394.1	449.4	627.6	460.0
8. Salem	559.7	421.0	293.6	359.0
9. Namakkal	358.8	336.4	219.7	293.2
10. Dharmapuri	495.3	392.3	291.4	327.6
11. Krishnagiri	410.4	375.2	261.6	289.8
12. Tiruppur	318.8	151.3	332.5	318.4
13. Coimbatore	1112.3	686.8	303.9	343.8
14. Erode	336.9	259.9	215.8	308.4
15. Tiruchirappalli	451.9	276.8	275.2	394.2
16. Karur	387.0	199.4	260.3	309.7
17. Perambalur	465.1	278.7	506.3	467.7
18. Pudukkottai	452.9	330.2	436.1	410.5
19. Thanjavur	312.7	313.7	581.9	593.7
20. Thiruvarur	401.6	302.3	833.8	742.1
21. Nagapattinam	366.2	279.0	1038.4	932.2
22. Madurai	395.3	325.2	457.2	418.8
23. Theni	432.2	215.4	356.2	363.9
24. Dindigul	474.2	308.4	395.8	470.2
25. Ramanathapuram	194.7	135.0	572.1	523.1
26. Virudhunagar	224.8	189.6	509.5	395.2
27. Sivagangai	416.7	301.9	562.8	423.7
28. Tirunelveli	172.3	128.4	477.5	491.4
29. Thoothukkudi	56.4	64.7	481.7	427.7
30. The Nilgiris	1373.4	874.9	369.6	477.2
31. Ariyalur	472.7	376.9	536.4	578.3
32. Kanniyakumari	504.7	490.6	320.9	523.9
33. Chengalpattu	-	-	829.8	702.6
34. Kallakurichi	-	-	614.4	471.4
35. Ranipet	-	-	488.3	423.4
36. Tirupathur	-	-	388.7	268.5
37. Thenkasi	-	-	432.9	448.6
State Average	441.2	345.4	512.2	476.3

3.3 RAINFALL BY DISTRICTS 2020-21 (Contd.)

(in mm)

District	Winter Season (January '21 TO and February '21)		Hot Weather Season (March '21 to May '21)		Annual Total (June '20 to May '21)	
	Actual	Normal	Actual	Normal	Actual	Normal
1	6	7	8	9	10	11
1. Chennai	196.6	36.6	47.9	55.5	1728.9	1315.7
2. Kancheepuram	107.4	19.8	78.1	76.8	1371.8	1167.4
3. Thiruvallur	139.0	31.6	59.2	65.8	1365.3	1192.4
4. Cuddalore	342.2	41.4	75.3	80.5	1704.3	1183.2
5. Villupuram	144.0	27.5	62.2	60.4	1327.3	1047.2
6. Vellore	49.8	13.1	128.1	103.4	1188.4	959.7
7. Tiruvannamalai	74.3	22.2	77.8	103.7	1173.8	1035.3
8. Salem	62.5	12.6	120.0	162.6	1035.8	955.2
9. Namakkal	66.4	12.6	83.0	149.2	727.9	791.4
10. Dharmapuri	59.8	12.9	121.4	166.0	967.9	898.8
11. Krishnagiri	45.9	9.3	122.3	145.5	840.2	819.8
12. Tiruppur	118.5	12.2	92.0	125.5	861.8	607.4
13. Coimbatore	118.5	19.6	290.1	164.8	1824.8	1215.0
14. Erode	78.5	14.0	151.8	140.1	783.0	722.4
15. Tiruchirappalli	139.2	18.1	62.3	96.7	928.6	785.8
16. Karur	109.1	13.2	43.7	107.0	800.1	629.3
17. Perambalur	157.6	22.8	86.4	86.7	1215.4	855.9
18. Pudukkottai	191.1	26.7	48.1	90.4	1128.2	857.8
19. Thanjavur	278.6	43.2	63.7	103.7	1236.9	1054.3
20. Thiruvarur	377.4	53.2	70.9	102.1	1683.7	1199.7
21. Nagapattinam	322.8	74.3	57.5	99.2	1784.9	1384.7
22. Madurai	131.5	23.3	95.1	146.9	1079.1	914.2
23. Theni	112.7	33.3	228.4	167.5	1129.5	780.1
24. Dindigul	194.5	28.7	149.8	170.8	1214.3	978.1
25. Ramanathapuram	239.8	48.5	69.0	112.5	1075.6	819.1
26. Virudhunagar	120.5	33.8	150.4	148.6	1005.2	767.2
27. Sivagangai	181.1	26.7	105.8	121.9	1266.4	874.2
28. Tirunelveli	419.7	68.9	185.6	133.3	1255.1	822.0
29. Thoothukkudi	162.2	41.4	85.2	113.9	785.5	647.7
30. The Nilgiris	163.9	41.8	350.5	211.3	2257.4	1605.2
31. Ariyalur	220.7	29.2	59.2	107.2	1289.0	1091.6
32. Kanniyakumari	99.1	39.3	639.0	273.4	1563.7	1327.2
33. Chengalpattu	172.5	30.8	47.1	55.8	1049.4	789.2
34. Kallakurichi	112.8	24.5	56.7	88.8	783.9	584.7
35. Ranipet	44.0	16.5	101.7	81.1	634.0	521.0
36. Tirupathur	16.7	9.4	93.0	114.2	498.4	392.1
37. Thenkasi	148.1	58.0	262.9	181.4	843.9	688.0
State Average	154.6	29.5	124.9	122.0	1232.8	973.2

Source: India Meteorological Department, Chennai-600 006, DES-Chennai-6

3.4 TIME SERIES DATA – RAINFALL BY SEASONS IN TAMIL NADU

(in mm)

Year	South West Monsoon		North East Monsoon		Winter Season	
	Normal	Actual	Normal	Actual	Normal	Actual
1	2	3	4	5	6	7
2007-08	316.1	341.6	431.1	515.4	35.3	46.6
2008-09	287.6	333.5	431.1	552.7	35.3	7.7
2009-10	316.0	317.0	431	482.6	35.3	12
2010-11	319.2	383.6	430.3	605.2	31.3	36.3
2011-12	321.2	300.5	441.2	540.8	31.3	9.5
2012-13	321.3	245.9	440.4	370.5	31.3	34.5
2013-14	321.2	325.4	441	294.3	31.3	13.8
2014-15	321.2	305.5	441	430.3	31.3	10.9
2015-16	330.9	295.7	470.7	695.8	32.6	2.9
2016-17	330.8	265.8	468.0	174.0	32.9	41.7
2017-18	331.0	421.09	468	429.28	33	17.99
2018-19	293.2	330.8	351.8	468.0	4.6	32.9
2019-20	345.4	417.7	477.6	478.4	29.8	11.6
2020-21	345.4	441.2	476.3	512.2	29.5	154.6

(in mm)

Year	Hot Weather Season		Total		% Deviation from Normal
	Normal	Actual	Normal	Actual	
1	8	9	10	11	12
2007-08	129.1	261.2	911.6	1164.8	27.8
2008-09	129.1	129.2	911.6	1023.1	12.2
2009-10	129	127	911.6	938	2.9
2010-11	127.8	140.0	908.6	1165.1	28.2
2011-12	128	86.3	921.6	937.1	1.7
2012-13	128.0	92.2	921.0	743.1	-19.3
2013-14	128.0	157.1	921.5	790.6	-14.2
2014-15	128.0	241.2	921.5	987.9	7.2
2015-16	128.2	123.6	962.4	1118.0	16.1
2016-17	127.1	116.6	958.9	598.1	-37.6
2017-18	128	148.9	959.9	1017.2	6.0
2018-19	49.3	128.2	698.8	960.0	37.4
2019-20	125.1	78.1	977.9	985.8	0.8
2020-21	122.0	124.9	973.2	1232.8	26.7

Source: India Meteorological Department, Chennai-600 006



