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1 Introduction

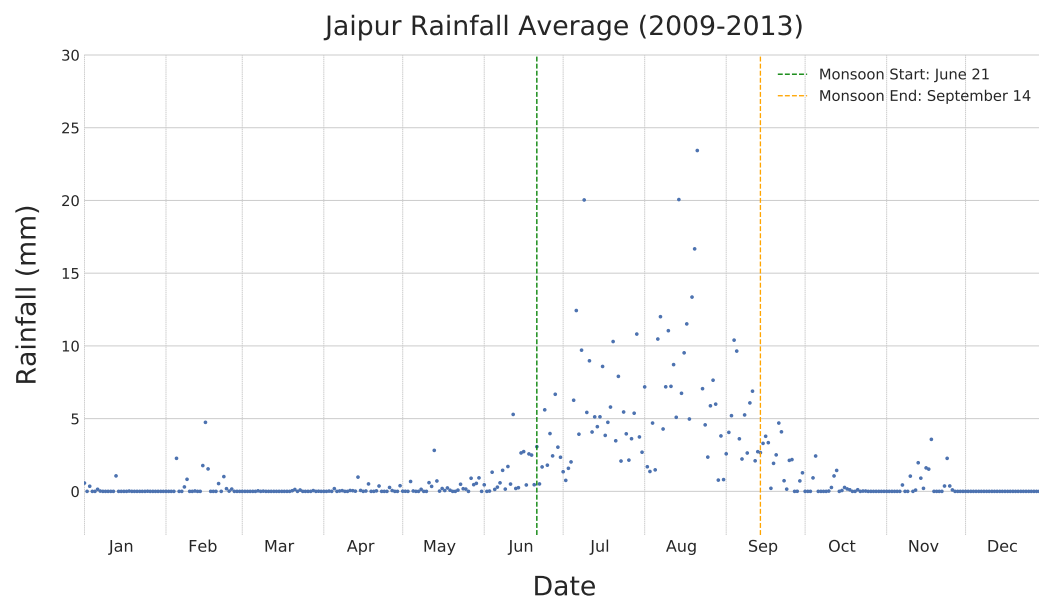


Table 1: Average daily rainfall (mm), 2009-2013.

District	2009	2010	2011	2012	2013
Ahmedabad	0.933762	2.447019	2.959700	1.774491	2.890293
Ajmer	0.745297	2.227983	1.462536	2.079820	1.695803
Alleppey	7.894521	10.665205	7.842466	5.238798	9.213973
Alwar	1.504398	2.109218	2.188571	1.629127	2.441420
Ambala	2.562972	5.440133	5.389955	4.372233	5.741069
Amreli	1.426453	2.313168	4.905951	1.004332	2.489971
Amritsar	1.307239	1.395545	3.991777	3.646209	1.917827
Banaskantha	0.841637	2.810956	2.317088	1.737314	2.657941
Banswara	2.101075	1.637628	3.380022	3.327199	3.362798
Barmer	0.603008	1.334461	1.341605	0.631876	1.156769
Baroda	1.823680	3.024266	2.732929	2.491701	4.157811
Bharatpur	1.317401	1.865930	2.104955	1.903866	1.991312
Bhatinda	0.960169	1.169829	1.155396	1.364257	1.146081
Bhavnagar	1.374029	2.025210	5.295625	1.121941	2.323060
Bhilwara	0.714193	1.563621	1.834612	2.210972	1.504764
Bikaner	0.628013	1.384182	1.012624	0.970510	0.711276
Broach	2.906832	2.947609	2.916972	2.041363	4.042772
Bundi	1.347775	1.731085	2.177249	2.044338	2.193762
Cannanore	11.058688	9.550607	9.112753	7.144830	11.868473
Chitorgarh	1.767473	2.153250	2.391792	2.262777	3.230413
Churu	0.582632	1.588106	1.619344	1.199937	1.241053
Dangs	3.439127	3.531249	4.080160	3.309721	4.395809
Dungarpur	1.886563	2.120708	2.820407	2.806170	3.053353
Ernakulam	7.143011	8.211341	6.694227	4.660706	7.870841
Ferozepur	0.707921	0.904953	1.105081	0.965977	1.820636
Ganganagar	0.451221	0.962795	1.115646	0.945665	0.467540
Gurdaspur	2.828569	2.412728	3.603237	3.332629	3.303024
Gurgaon	1.017773	1.993967	1.835407	1.348111	1.337991
Hissar	0.738538	1.001483	2.013426	1.357606	0.926535
Hoshiarpur	2.279782	2.689528	4.104212	3.077197	2.776251
Jaipur	1.014205	2.089384	1.773400	1.957611	2.025276
Jaisalmer	0.296980	1.056934	0.781498	0.657233	0.635185
Jalor	0.653286	2.039055	1.914808	1.157180	1.940267
Jamnagar	2.507065	3.898722	1.876147	1.122471	2.318072
Jhalawar	2.328077	1.749656	4.238644	1.987977	3.969812
Jhunjhunu	0.737566	1.453677	1.576362	1.511352	1.487963
Jodhpur	0.300432	1.398420	1.253465	0.993591	1.364884
Jullundur	1.767470	1.966642	3.477155	3.169333	1.760736
Junagadh	2.477234	4.144460	1.918340	1.014649	3.958058
Kaira	1.161339	2.702391	2.733987	2.113839	3.432450

Table 2: Average daily rainfall (mm), 2009-2013 (continued).

District	2009	2010	2011	2012	2013
Kangra	2.922819	3.880646	3.015936	2.506886	3.489523
Kapurthala	1.642103	1.760406	3.881816	3.581883	1.540337
Karaikal	4.344313	4.795586	4.969629	3.949634	2.760575
Karnal	1.340115	2.302660	1.949526	1.402351	1.876708
Kota	1.618313	1.775773	3.754731	2.139261	3.759987
Kottayam	5.677974	7.096123	7.064874	4.905202	6.519425
Kozhikode	8.131390	7.713188	5.249073	4.255190	6.997469
Kutch	1.167302	2.506009	1.884552	0.776961	1.780432
Lahaul and Spiti	2.655105	3.645856	0.929589	1.789705	2.856896
Ludhiana	1.903986	1.987211	2.447821	2.332501	1.669036
Mahe	10.506033	10.287961	8.981495	6.455764	10.711888
Mahendragarh	0.870020	1.768466	1.554979	0.998887	1.423261
Mehsana	1.269039	2.424064	2.248417	1.618388	2.873544
Nagaur	0.488924	1.727240	1.268888	1.399243	1.438361
Palghat	6.442755	5.841897	5.120834	3.895619	6.249560
Pali	0.696764	1.879720	1.917282	1.698480	1.581755
Panchmahals	1.795955	2.442927	2.615689	2.727710	3.674564
Patiala	2.658996	2.366462	3.538373	2.475840	1.960177
Pondicherry	3.994838	4.023771	3.878492	3.635626	2.706716
Quilon	4.553779	5.949477	6.767950	4.727511	5.258896
Rajkot	1.562445	2.712266	2.292105	1.025847	2.498169
Rohtak	0.867468	2.007945	1.509709	0.944031	1.290914
Sabarkantha	1.775129	2.232034	2.619370	2.453572	3.008318
Sangrur	1.390478	1.704935	2.024518	1.649491	1.319822
Sawai Madhopur	1.448938	1.813186	2.298195	2.088424	2.202670
Sikar	0.673378	2.083078	1.241611	1.758323	1.942002
Simla and Mahasu	2.559581	3.810127	4.119580	3.119581	3.851565
Sirohi	1.022992	2.724475	2.770924	1.981224	2.828738
Surat	3.391157	3.427265	3.835355	2.933427	4.457109
Surendranagar	0.764759	1.899517	3.875538	0.975804	1.704200
Tonk	0.981739	2.034248	1.824012	2.093966	1.852704
Trichur	6.412329	5.825479	5.577808	4.098634	6.564932
Trivandrum	1.767945	1.669315	4.625479	3.486612	1.512329
Udaipur	1.433204	2.520095	2.282315	2.358241	2.704293
Yanam	1.816681	5.094930	2.502504	3.907299	3.706337

Table 3: Average daily temperature (C), 2009-2013.

District	2009	2010	2011	2012	2013
Ahmedabad	28.124052	28.115556	27.558795	27.267604	27.174525
Ajmer	26.992555	26.849780	26.003538	25.749081	25.784335
Alleppey	26.895370	27.039397	26.760904	27.010601	26.923205
Alwar	26.036522	25.971342	25.069027	25.081054	24.983702
Ambala	22.144918	22.295267	21.559450	21.650118	21.676805
Amreli	27.729859	27.597080	27.192959	26.948305	26.860302
Amritsar	24.015260	24.178230	23.564734	23.375816	23.658969
Banaskantha	26.995973	26.948060	26.339688	25.933225	25.992233
Banswara	26.282156	26.347613	25.483247	25.251501	25.017583
Barmer	27.073154	26.975851	26.351141	25.830719	26.057812
Baroda	27.970295	28.002455	27.314879	26.950609	26.911489
Bharatpur	26.433417	26.473056	25.537083	25.576999	25.304429
Bhatinda	24.696343	24.768409	24.060727	24.042239	24.207922
Bhavnagar	27.865573	27.751056	27.333279	27.063772	26.976074
Bhilwara	26.863724	26.802361	25.919908	25.613267	25.552709
Bikaner	27.097708	26.920228	26.097287	25.805185	26.113987
Broach	27.833381	27.837728	27.162883	26.872594	26.840784
Bundi	27.066783	27.069668	26.073562	25.833861	25.658516
Cannanore	24.821772	24.905378	24.492885	24.804998	24.682175
Chitorgarh	26.690358	26.675375	25.842644	25.471371	25.328875
Churu	26.347085	26.201568	25.416850	25.258395	25.464453
Dangs	27.549218	27.534597	26.825788	26.641038	26.643136
Dungarpur	26.636477	26.642732	25.920407	25.623882	25.423381
Ernakulam	25.528568	25.680263	25.305602	25.605226	25.576837
Ferozepur	24.565462	24.671689	24.002632	23.931158	24.129864
Ganganagar	25.551599	25.505861	24.784036	24.669754	24.899667
Gurdaspur	21.797938	22.001137	21.455697	21.300079	21.563102
Gurgaon	25.868983	25.836950	25.007173	25.087965	24.997812
Hissar	25.238188	25.241254	24.485692	24.468956	24.635963
Hoshiarpur	22.095325	22.283635	21.630720	21.594140	21.744023
Jaipur	26.544845	26.477592	25.582517	25.487540	25.424965
Jaisalmer	27.240176	27.120895	26.450824	26.001520	26.286353
Jalor	26.923875	26.839450	26.172777	25.685329	25.827340
Jamnagar	27.568807	27.408348	27.027236	26.750502	26.765730
Jhalawar	26.694099	26.757947	25.765819	25.574535	25.251565
Jhunjhunu	26.096853	25.984219	25.178094	25.138854	25.240208
Jodhpur	27.174084	27.029729	26.326091	25.903072	26.112664
Jullundur	23.310794	23.481596	22.833791	22.793694	22.947695
Junagadh	27.520396	27.344959	26.973750	26.741746	26.742683
Kaira	28.095943	28.106498	27.498563	27.182244	27.100336

Table 4: Average daily temperature (C), 2009-2013 (continued).

District	2009	2010	2011	2012	2013
Kangra	19.827459	20.037195	19.427731	19.371648	19.555430
Kapurthala	23.575656	23.756661	23.124922	23.057861	23.227566
Karaikal	29.260579	29.297456	29.008392	29.474556	29.433426
Karnal	24.726760	24.797322	23.980100	24.034011	24.111592
Kota	26.840226	26.905554	25.927914	25.789739	25.458022
Kottayam	26.503425	26.650586	26.331871	26.606043	26.553290
Kozhikode	24.208019	24.369689	23.904034	24.241625	24.193641
Kutch	27.663868	27.509332	27.091937	26.785769	26.825740
Lahaul and Spiti	17.571939	17.820207	17.319296	17.229031	17.453921
Ludhiana	23.523426	23.647268	22.962941	22.984091	23.108691
Mahe	24.516394	24.661802	24.221523	24.540661	24.468137
Mahendragarh	25.901853	25.816817	25.050960	25.086472	25.123409
Mehsana	26.837067	26.837682	26.239413	25.930841	25.838300
Nagaur	27.102504	26.927017	26.082933	25.818941	25.988390
Palghat	24.172180	24.332562	23.862475	24.210817	24.229164
Pali	26.273966	26.141750	25.392301	24.942693	25.055795
Panchmahals	27.328663	27.359618	26.613826	26.293906	26.183362
Patiala	23.169463	23.271167	22.568563	22.638466	22.731174
Pondicherry	29.204279	29.154691	28.908668	29.401055	29.286083
Quilon	27.380074	27.531736	27.243148	27.496457	27.435092
Rajkot	27.713463	27.574728	27.181761	26.900448	26.899698
Rohtak	25.689782	25.647629	24.875043	24.941015	24.959228
Sabarkantha	26.811755	26.807394	26.159355	25.871471	25.675962
Sangrur	24.549107	24.609042	23.861222	23.889786	24.017497
Sawai Madhopur	26.961043	26.976315	26.058374	25.962521	25.752148
Sikar	26.300344	26.175732	25.269450	25.195354	25.230314
Simla and Mahasu	21.605710	21.765235	21.054958	21.102935	21.179898
Sirohi	26.703886	26.658348	25.953644	25.488243	25.545315
Surat	27.768945	27.755929	27.093304	26.852175	26.846846
Surendranagar	28.034341	27.978182	27.528868	27.215683	27.173109
Tonk	26.848741	26.802302	25.901700	25.724579	25.649095
Trichur	24.199644	24.358795	23.890630	24.238798	24.267781
Trivandrum	28.552384	28.729425	28.426685	28.665109	28.636082
Udaipur	26.372520	26.357245	25.566912	25.132426	25.074974
Yanam	28.430286	28.085476	27.808787	28.037557	27.814196

Table 5: Annual rainfall (mm), 2009-2013.

District	2009	2010	2011	2012	2013
Ahmedabad	340.823185	893.161857	1080.290576	649.463576	1054.957016
Ajmer	272.033542	813.213799	533.825623	761.214038	618.968062
Alleppey	2881.500000	3892.800000	2862.500000	1917.400000	3363.100000
Alwar	549.105245	769.864465	798.828495	596.260627	891.118364
Ambala	935.484633	1985.648374	1967.333624	1600.237414	2095.490263
Amreli	520.655430	844.306201	1790.672246	367.585363	908.839534
Amritsar	477.142298	509.373791	1456.998631	1334.512327	700.007024
Banaskantha	307.197441	1025.999063	845.737051	635.856987	970.148572
Banswara	766.892392	597.734193	1233.708004	1217.754955	1227.421317
Barmer	220.097770	487.078096	489.685675	231.266602	422.220507
Baroda	665.643318	1103.857120	997.519046	911.962729	1517.601122
Bharatpur	480.851266	681.064338	768.308657	696.814821	726.828756
Bhatinda	350.461862	426.987467	421.719429	499.318175	418.319426
Bhavnagar	501.520510	739.201636	1932.903247	410.630387	847.916786
Bhilwara	260.680565	570.721608	669.633410	809.215724	549.238891
Bikaner	229.224606	505.226428	369.607810	355.206706	259.615829
Broach	1060.993839	1075.877432	1064.694619	747.138729	1475.611883
Bundi	491.937987	631.846067	794.695802	748.227628	800.723111
Cannanore	4036.420977	3485.971555	3326.154672	2615.007605	4331.992610
Chitorgarh	645.127480	785.936229	873.004068	828.176527	1179.100590
Churu	212.660835	579.658525	591.060576	439.177019	452.984290
Dangs	1255.281506	1288.906064	1489.258565	1211.357787	1604.470284
Dungarpur	688.595526	774.058402	1029.448676	1027.058320	1114.473767
Ernakulam	2607.199193	2997.139416	2443.392704	1705.818250	2872.857023
Ferozepur	258.391145	330.308001	403.354622	353.547410	664.532020
Ganganagar	164.695795	351.420125	407.210909	346.113446	170.652093
Gurdaspur	1032.427522	880.645666	1315.181686	1219.742316	1205.603921
Gurgaon	371.487168	727.798043	669.923624	493.408466	488.366791
Hissar	269.566196	365.541383	734.900316	496.883824	338.185130
Hoshiarpur	832.120531	981.677871	1498.037376	1126.254260	1013.331625
Jaipur	370.184660	762.625046	647.291099	716.485698	739.225841
Jaisalmer	108.397529	385.781062	285.246890	240.547427	231.842470
Jalor	238.449217	744.255098	698.904870	423.527833	708.197277
Jamnagar	915.078811	1423.033664	684.793824	410.824304	846.096353
Jhalawar	849.747952	638.624350	1547.105175	727.599709	1448.981289
Jhunjhunu	269.211482	530.592029	575.372020	553.154792	543.106398
Jodhpur	109.657803	510.423145	457.514883	363.654326	498.182821
Jullundur	645.126484	717.824218	1269.161485	1159.975898	642.668618
Junagadh	904.190424	1512.727734	700.194073	371.361570	1444.691331
Kaira	423.888664	986.372839	997.905343	773.665079	1252.844367

Table 6: Annual rainfall (mm), 2009-2013 (continued).

District	2009	2010	2011	2012	2013
Kangra	1066.829088	1416.435823	1100.816710	917.520293	1273.675813
Kapurthala	599.367666	642.548243	1416.862962	1310.969201	562.222984
Karaikal	1585.674325	1750.388873	1813.914604	1445.566018	1007.609784
Karnal	489.141998	840.470734	711.577095	513.260636	684.998335
Kota	590.684220	648.157248	1370.476834	782.969526	1372.395203
Kottayam	2072.460362	2590.084834	2578.679112	1795.303788	2379.590018
Kozhikode	2967.957378	2815.313509	1915.911498	1557.399632	2554.076131
Kutch	426.065348	914.693325	687.861530	284.367771	649.857836
Lahaul and Spiti	969.113390	1330.737348	339.300000	655.032190	1042.767119
Ludhiana	694.954848	725.332042	893.454508	853.695422	609.198047
Mahe	3834.702029	3755.105884	3278.245598	2362.809496	3909.839203
Mahendragarh	317.557163	645.490246	567.567292	365.592528	519.490402
Mehsana	463.199248	884.783352	820.672254	592.329873	1048.843384
Nagaur	178.457222	630.442767	463.144003	512.123032	525.001813
Palghat	2351.605599	2132.292464	1869.104321	1425.796702	2281.089324
Pali	254.318927	686.097907	699.807887	621.643530	577.340452
Panchmahals	655.523479	891.668314	954.726340	998.342039	1341.215834
Patiala	970.533521	863.758771	1291.506183	906.157440	715.464549
Pondicherry	1458.116050	1468.676523	1415.649413	1330.639230	987.951432
Quilon	1662.129296	2171.559195	2470.301720	1730.269180	1919.496976
Rajkot	570.292554	989.977025	836.618455	375.459893	911.831589
Rohtak	316.625944	732.900006	551.043748	345.515395	471.183767
Sabarkantha	647.922139	814.692469	956.070007	898.007496	1098.035962
Sangrur	507.524409	622.301259	738.949014	603.713720	481.735177
Sawai Madhopur	528.862465	661.813016	838.841002	764.363303	803.974644
Sikar	245.782994	760.323609	453.188189	643.546173	708.830892
Simla and Mahasu	934.247071	1390.696191	1503.646611	1141.766812	1405.821071
Sirohi	373.392254	994.433440	1011.387406	725.128080	1032.489514
Surat	1237.772268	1250.951834	1399.904553	1073.634357	1626.844942
Surendranagar	279.137140	693.323699	1414.571493	357.144150	622.032914
Tonk	358.334741	742.500539	665.764292	766.391415	676.236877
Trichur	2340.500000	2126.300000	2035.900000	1500.100000	2396.200000
Trivandrum	645.300000	609.300000	1688.300000	1276.100000	552.000000
Udaipur	523.119603	919.834662	833.045056	863.116345	987.066797
Yanam	663.088683	1859.649408	913.413820	1430.071372	1352.812984