Exploring weather trends : Project I

Hi am from Chennai and I chose Bangalore as my closest city from city_list table.

The data was extracted from the given workspace with the query as shown below:

select city_data.year as year,city_data.avg_temp as citytemp,global_data.avg_temp as globaltemp from city_data,global_data where city_data.year=global_data.year and city_data.city='Bangalore' and global_data.avg_temp!=0 and city_data.avg_temp!=0;

The query ran successfully and the output data was downloaded as a csv file.

The moving averages was calculated with a period of 9 years to get a desired smooth graphical representation.
The screenshot has been attached below:

C10 =AVERAGE(B2:B10)

	A	B	C	D	E	F
1	year	citytemp	city_mavg	globaltemp	global_mavg	
2	1796	24.49		8.27		
3	1797	25.18		8.51		
4	1798	24.65		8.67		
5	1799	24.81		8.51		
6	1800	24.85		8.48		
7	1801	24.49		8.59		
8	1802	25.44		8.58		
9	1803	25.22		8.5		
10	1804	25.67	24.9777777777778	8.84	8.55	
11	1805	25.01	25.0355555555556	8.56	8.551	
12	1806	24.87	25.0011111111111	8.43	8.567	
13	1807	24.25	24.9566666666667	8.28	8.544	
14	1813	24.23	24.8922222222222	7.74	8.451	
15	1814	23.91	24.7877777777778	7.59	8.359	
16	1815	23.79	24.71	7.24	8.235	
17	1816	23.3	24.4722222222222	6.94	8.07	
18	1817	23.6	24.2922222222222	6.98	7.91	
19	1818	23.94	24.1	7.83	7.843	
20	1819	23.86	23.9722222222222	7.37	7.696	
21	1820	23.91	23.8655555555556	7.62	7.602	
22	1821	24.4	23.8822222222222	8.09	7.568	
23	1822	24.33	23.8933333333333	8.19	7.559	
24	1823	24.62	23.9722222222222	7.72	7.557	
25	1824	25.1	24.1177777777778	8.55	7.653	
26	1825	24.69	24.2722222222222	8.39	7.768	
27	1826	24.88	24.4144444444444	8.36	7.91	
28	1827	24.67	24.4955555555556	8.81	8.093	
29	1828	24.61	24.5788888888889	8.17	8.127	
30	1829	24.46	24.64	7.94	8.184	
31	1830	24.39	24.6388888888889	8.52	8.274	
32	1831	24.43	24.65	7.64	8.229	
33	1832	24.66	24.6544444444444	7.45	8.155	
34	1833	24.46	24.5833333333333	8.01	8.184	
35	1834	24.59	24.5722222222222	8.15	8.144	
36	1835	23.89	24.4622222222222	7.39	8.044	
37	1836	24.12	24.4011111111111	7.7	7.978	

The graphical representation of the data comparing average temperature of my city with the global temperature was obtained as shown below :

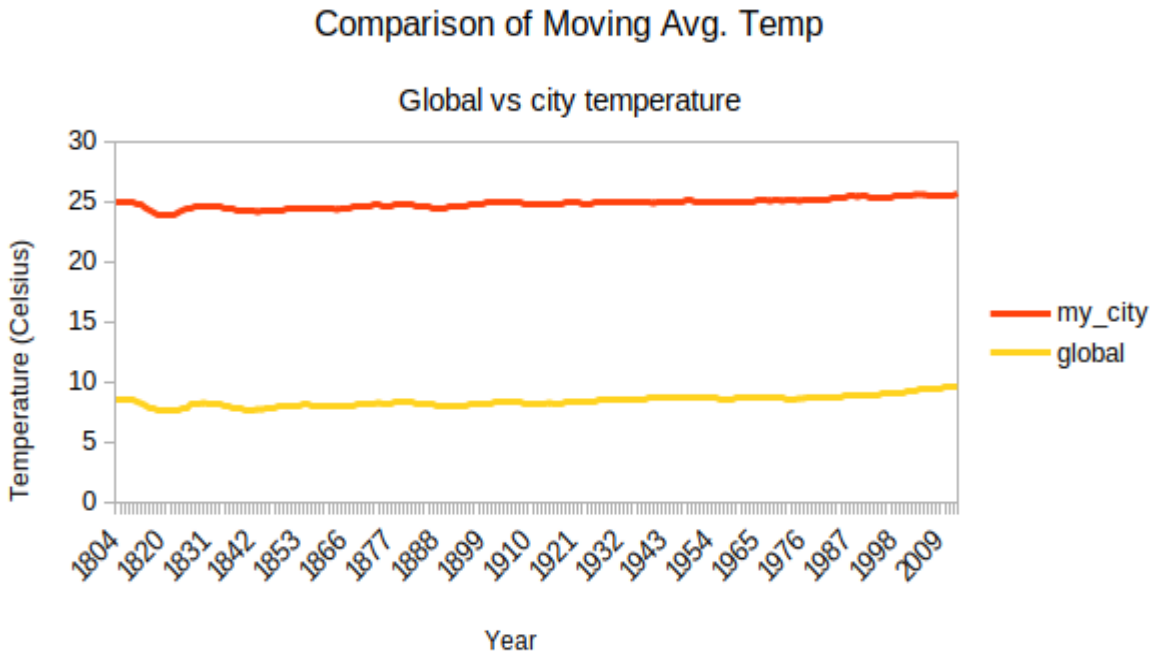

Fig : Avg. Temp comparison – My city vs Global

Observations made from the graph :

1) My city temperature seems to be ranging from 24-25 degrees on an average.

2) The global temperature seems to be ranging from 7-9 degrees on an average.

3) Over the past 20 years, there seems to be a noticable increase in avg. Temperature for both city as well as global.

4) My city is approximately three times hotter than the avg. Global temperature.