Supplementary Materials

Additional Methods Section
(i) Methods of mapping the public parks

To begin the process of spatially recording the public parks, the individual ward boundaries on Google Maps were overlaid one at a time and the list of parks listed by the BBMP in that particular ward were checked. After verifying the presence of parks through Google Maps, each park was turned on satellite imagery to more accurately delineate the boundaries of parks as polygons across the digitised landscape of the city. Additional steps were performed to confirm these polygons listed by the BBMP and clarified as park areas via remote sensing analysis through Google Earth: i) geotagged photos of corresponding locations uploaded by visitors were checked; and ii) followed up with manual visual verification for which the authors travelled across the city. This process was replicated for parks across the jurisdiction of the BBMP, yielding a digitised record of 1,153 parks, approximately 90 percent of which were mentioned in the BBMP list while others were not named in the list as they emerged after 2015. There are a few parks in the BBMP dataset of 1288 parks that were not captured in our record because the size of the park may have been too small to appear in Google Earth imagery. Finally, a total of 1153 parks were mapped, constituting a total area of 773.6 hectares.

To add more detail to this mosaic of urban green spaces (UGS) traversing the city of Bengaluru, a unique ID was assigned and the entrance points for each park marked, identified based on analysis of Google Earth imagery. If the park had more than one entrance, then those were marked as well. Once these entrance points were established, the combined framework of the URDPFI guidelines and Van and Wiedemann (8) was referred to in order to categorise the 1200 parks identified in Bengaluru and then provide a basis to ascertain accessibility (refer to Table 1 in the main text).

(ii) Description of the socio-economic parameters

Population density is used for a general analysis of how much population in each ward has access to parks. The population under six years of age has been used to assess whether children have access to parks or not, assuming that, as compared to adults, this age group is most likely to play outdoors and utilize available parks. Spatial variation in access to parks for this lot of population will highlight the shortcoming in urban planning. The Scheduled Caste (SC) population has been used to assess spatial variation in park accessibility with respect to caste distribution to highlight caste-based bias in planning of public green spaces. Since economic information like household income data are not publicly available at an intra-urban scale in India, a proxy wealth index calculated by Bhan and Jana [14] was used to understand the socio-economic distribution of each selected parameter.

(iii) Bivariate LISA Morgan-I statistics method

LISA is a statistic that shows the extent of similarity and dissimilarity present in data points with respect to their spatial neighbors [25,26]. Specifically, the Bivariate LISA Morgan-I statistic has been used in the study which gives local correlation between two variables in the neighborhood. The value of this spatial autocorrelation ranges between −1 and 1, where -1 is representative of perfect dispersion, i.e., negative values indicate dissimilarity between

two variables, whereas 1 represents perfect correlation, i.e., similarity between variables. This advanced geo-statistical analysis has been performed in GeoDa, which is an open source tool for spatial data science. The spatial correlation statistics have been generated with default significance level of p-value <0.05.

(iv) Findings of the spatial distribution of socio-economic parameters

The spatial distribution of socio-economic parameters depicted in Figure 2(a) to 2(d) revealed that the South, East and West zones have a higher population density compared to rest of the zones. The western part of the city recorded lower levels of income compared to the wards located in central and towards eastern Bengaluru. Eastern Bengaluru has a higher proportion of younger as well as SC populations.

The average population of 198 wards in BBMP is 42,644 and the average SC population is 4850 per ward. Of 198 wards, 119 wards have both total and SC population below the average, 59 percent wards were recorded to have population aged less than six years below the average, and 58 percent of wards were found to have below average income.

Padarayanapura ward in the West zone and Kempapura Agrahara in the South zone were found to be wards with the highest population density of 1180 and 1133 persons per hectare, respectively. Hempigepura in Raja Rajeshwari Nagar zone and Varthuru in Mahadevapura zone had the least with 17 and 20 persons per hectare, respectively.

Vasanth Nagar in East zone and Marenahalli in West zone recorded the lowest in terms of the population below the age of six, i.e., 0.17 percent and 0.20 percent, respectively, whereas Horamavu and Bellandur in Mahadevapura zone had the highest with 1.25 percent and 1.20 percent, respectively.

Subhash Nagar and Rayapuram wards in the West zone have the highest SC population of 1.70 percent and 1.42 percent, respectively. Padarayanapura and Chickpete wards in the West Zone recorded the lowest population of 0.02 percent and 0.03 per cent, respectively.

Ganesh Mandir and Shakambari ward in the South zone have the highest income of 161.39 and 156.36. Padarayanapura and Chalavadapalaya ward in West zone have the lowest income of 24.02 and 28.55.

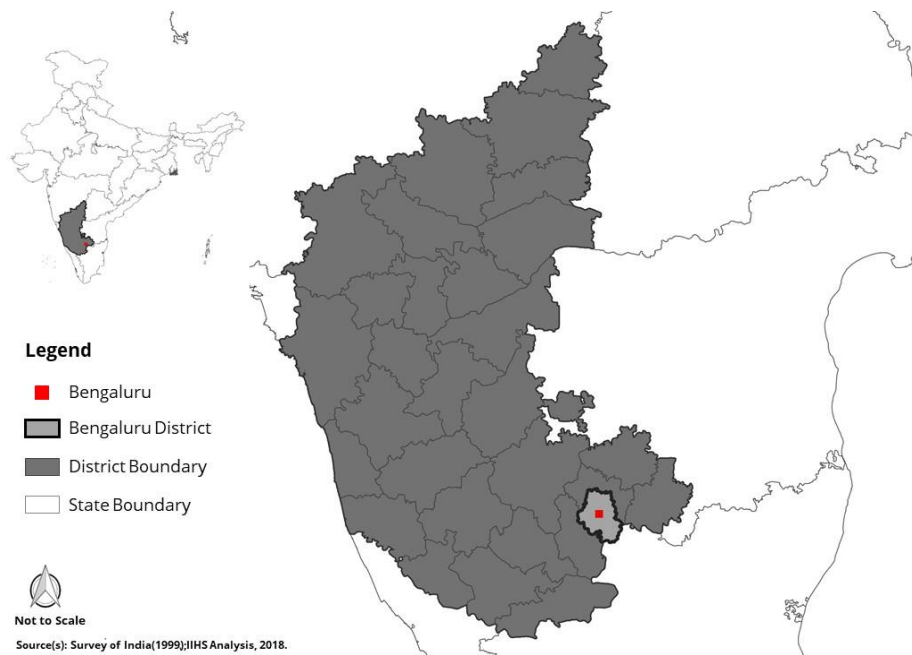**Table S1. Major Indian cities with per capita green space**

Indian Cities	Population (in millions)	Population Density	Geographical Area (in km²)	Green Cover % (in km²; 2017)	Per Capita Green Space (in m²; 2018)
Delhi	28.50	12,591	1484.00	20.00 (296.80)	10.41
Mumbai	23.50	20,482	603.00	36.48 (220.00)	9.36
Kolkata	15.20	24,400	1380.00	7.30 (100.74)	6.61
Bengaluru	13.90	4381	2196.00	2.09 (46.03)	3.31
Hyderabad	11.57	18,480	650.00	1.66 (10.79)	0.93
Chennai	9.88	14,350	1189.00	15.00 (178.35)	18.05
Ahmedabad	8.41	9900	464.00	17.00 (78.88)	9.38
Surat	6.55	1376	326.50	11.84 (38.66)	5.90
Gandhinagar	6.33	660	649.00	54.00 (188.46)	29.77
Jaipur	3.71	598	467.00	5.43 (24.75)	6.67
Nagpur	2.94	11,000	285.90	18.00 (51.42)	17.49
Mysuru	1.70	6911	128.40	20.19 (25.92)	15.25
Chandigarh	1.05	9252	114.00	35.00 (39.90)	38.00

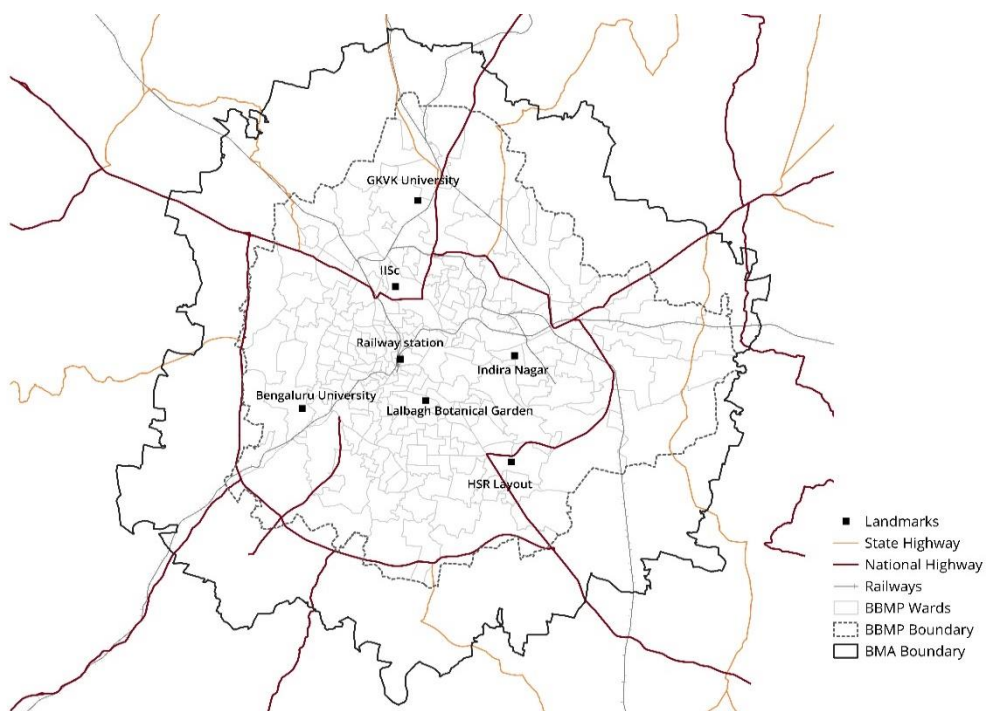Source: India environment and population portal [6].

Table S2. Total area mean and percentage of hierarchy of parks for each PWI category

	Neighbour-hood Parks	Housing Area Parks	Community Parks	District Parks	Sub-City Parks
Total Area (in Hectare)	144.65	187.79	190.82	60.69	185.27
Mean PWI <50	1.97	0.70	1.92	0.00	0.00
Mean PWI 50-75	1.38	0.95	2.94	10.34	0.00
Mean PWI 75-100	1.36	1.02	3.58	6.50	0.00
Mean PWI >100	1.76	1.35	2.99	7.72	61.76
PWI <50 (in %)	9.83	11.26	9.58	0.00	0.00
PWI 50-70 (in %)	26.22	33.18	35.30	10.34	0.00
PWI 75-100 (in %)	31.30	45.01	50.11	19.49	0.00
PWI >100 (in %)	77.30	98.34	95.83	30.86	185.27

PWI–Proxy Wealth Index, PWI < 50 = Low wealthy areas, PWI > 100 = High wealthy areas

(i)

(ii)

Figure S1. Administrative Map. (i) Karnataka State (ii) Bengaluru city.