

How do urban trees vary across India? a comparative analysis across ten Indian cities

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The present study was conducted to examine the variation in dominant tree species richness, composition, green cover per capita, tree-species traits, and ecosystem services to understand the similarity in urban tree distribution across 10 Indian cities. We compiled a list of 226 dominant tree species across all 10 cities. The cities showed a maximum similarity in urban tree flora of 56% (Sorensen's index), the lowest being 19%. All cities displayed the dominance of faster-growing species. We emphasise that a good mix of native vs exotic and diversity of traits would make the urban landscapes more resilient and resistant under unpredictable climatic conditions.

Keywords: City trees, flowering season, fruiting season, Sorensen's index, urban tree pollinators.

flora took place owing to the efforts of maintenance and irrigation within the city limits that helped species overcome their natural stressors.

Although there may be some positive effects of introducing certain exotic trees into a given area on local fauna, it could have mixed results on indigenous fauna. Exotic trees are often known to attract exotic and invasive fauna that lack intricate relationships with the native species of that locality¹³. Studies have found that when non-native species invade plant communities, the diversity and abundance of butterfly and moth species could decline considerably¹⁴, allowing exotic fauna to be attracted to them, which compete with the indigenous fauna, thereby disrupting the balance of the local ecosystems¹⁵. The massive and widespread popularity of exotic plant species in the horticulture industry has transformed suitable habitats into food deserts for native insect species, and therefore, the abundance and distribution of birds have gradually decreased¹⁶. Similarly in urban ecosystems, the fast