

# **Sustainable Cityscapes in Metropolitan India: The role of Urban Public Spaces**

-A Synopsis-

Ecological research targeting sustainable urban landscapes, and more importantly the public spaces, needs to include findings and methods from many lines of ecological research, such as the link between biodiversity and ecosystem function, the role of humans in ecosystems, landscape connectivity, and resilience.

The phrase “urban” has a number of meanings related to a variety of conditions, such as population density, land cover, or cultural practices, with most authors using their own definition. Still, urbanization is something tangible that influences the environment, e.g., through increased air temperature and changed water cycles, and by altering ecological processes. In terms of shape rather than processes, urbanization results in an environment that is compositionally more heterogeneous, geometrically more complex, and ecologically more fragmented, and may represent the most complex mosaic of vegetative land cover and multiple land uses of any landscape. The roles of public spaces, spatial heterogeneity and spatial/temporal scale are increasingly understood as essential for an understanding of ecological processes. Cities are interesting as they are dominated by one species, humans, and social and cultural factors are strongly involved in the shaping of system identity. Yet our knowledge and understanding of the effects of these traits on urban landscapes, open spaces and their ecology is far from complete.

This paper reviews and highlights the importance of these issues for sustainable use of ecosystem services, which is argued to be one aspect of sustainable cities. The paper stresses the need to include various planning, social and economic factors when analyzing urban landscapes. Spatially explicit data can be used to assess the roles different green areas have in providing people with ecosystem services, and whether people actually have access to the services. Such data can also be used to assess connectivity and heterogeneity, both argued to be central for continuous, long-term provision of these services, and to determine the role urban form has for sustainability.

The paper essentially presents an insight to the kind of public spaces that existed in our cities in the past, how they served their purpose then and what (if any) are the reasons for their redundancy/decreased utility in present urban scenarios. All this, to understand what criterion were considered while designing them (e.g. the case of Jaipur) and what lessons they have in store for us. It then discusses the kind of urban public spaces that are needed in the present urban context, considering the dramatic change in the composition and the functioning of the Indian cities standing in the new millennium, under the shadow of the vast challenges faced by them such as migration, pollution, shrinkage & sprawl, urban density and lastly, what factors need to be considered to have an optimum development of our cities towards a sustainable future.

We shall look through a series of cases and examples to understand these issues surrounding the public urban spaces under three time periods to highlight the indispensable role they can play in a smart and sustainable growth of our cities.

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