

URBA

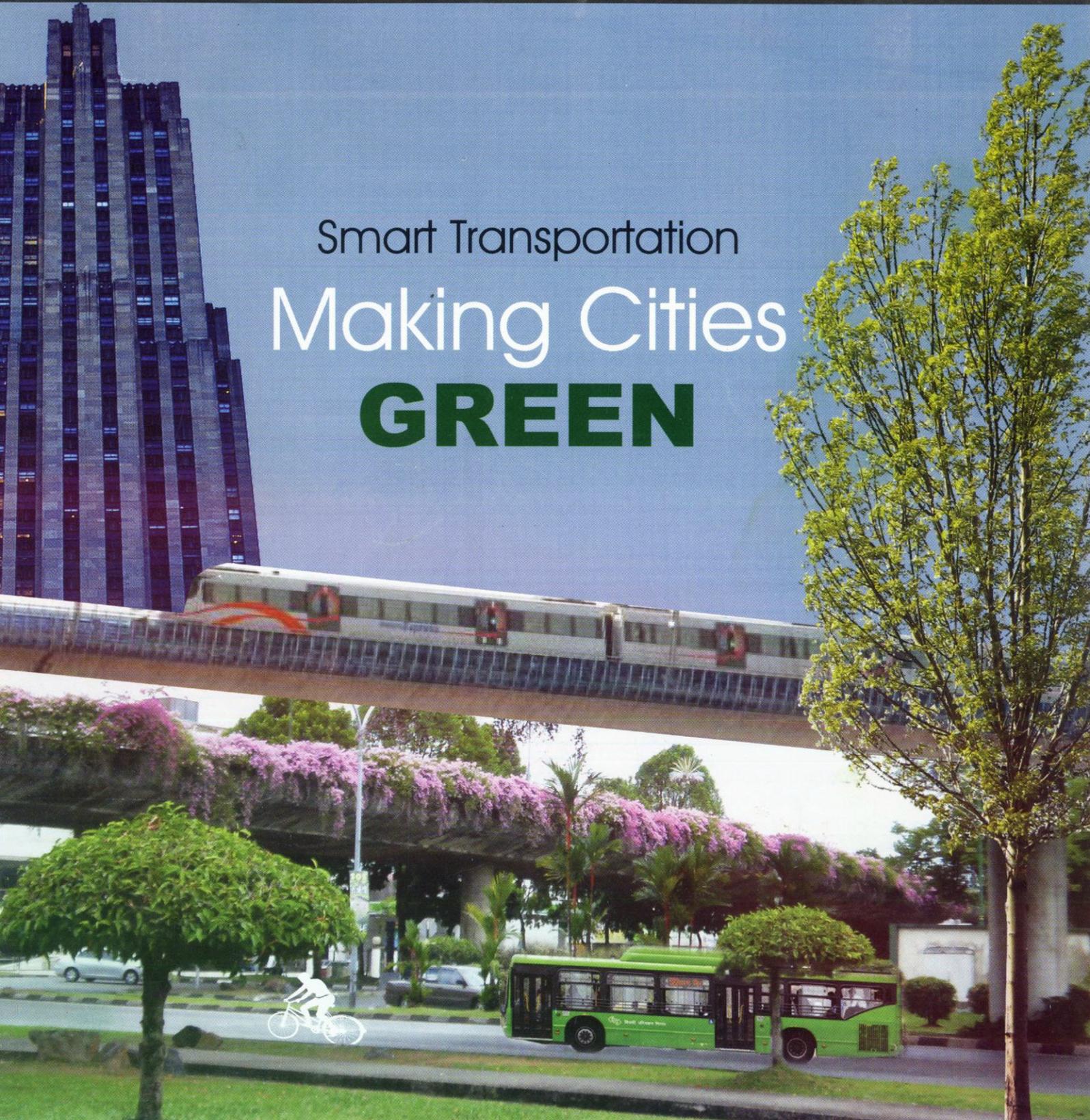
NATURE

[www.cugs.in](http://www.cugs.in)

Green Cities | Green Minds

Vol. 1 | No. 3 ■ October 2013

Smart Transportation  
Making Cities  
**GREEN**



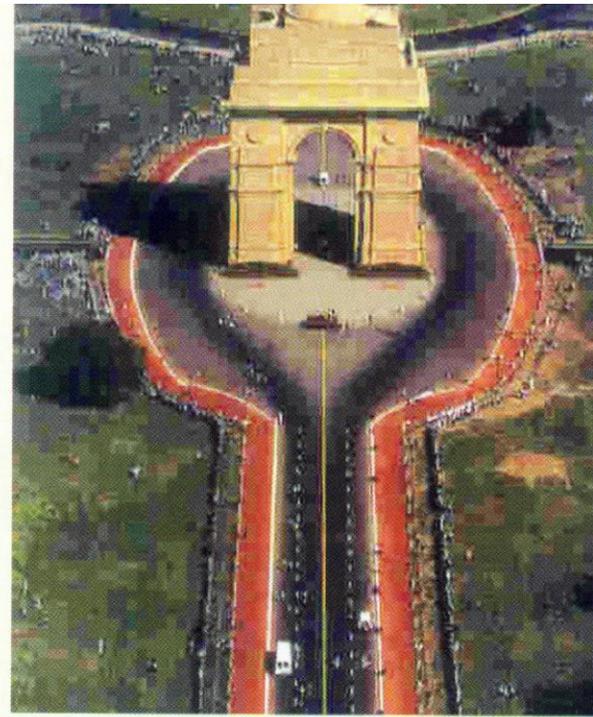


## FEATURE

### Urban Green Networks

# Central City Core Greenway

Samir Mathur



Urban green corridor systems are readily accepted worldwide as a desirable recreational, wildlife and landscape resource as they bring many benefits to urban dwellers. They are landscape elements that prevent the negative effects of fragmentation. However the planning design, use and management processes are critical factors in meeting quality of life indicators.

Samir Mathur takes a look, in the context of New Delhi, at the possibility of creating a visually and functionally linked system of open spaces within the city through landscape improvement.

**T**he decision to shift the capital of the Imperial India to Delhi called for a new City to house the government and hence New Delhi was laid out in the plains south of Shahjahanabad. The city was designed by the English Architect Edwin Lutyens loosely based on the utopian ideas of Garden Cities (Ebenezer Howard, 1898) and the "City Beautiful" movement with its emphasis on large, geometric plazas embellished with fountains and formal geometry. However the city was primarily designed for the automobile. The morphology and urban space syntax of the new city was quite

different from that of a typical Indian city. Lawns which were a European import were used extensively throughout the city. The city was dotted with tree lined avenues wide enough to withstand the automobile ingress even after a century of its coming into existence. However in the overemphasis on the grandeur of spaces and formality in the layout, the pedestrian linkages and human scale were often overlooked. The usage and perception of these open spaces in the city have undergone change and have adapted to the requirements of the city and is in a dire need of review.

### THE CONTEXT

The Master Plan of Delhi (MPD) 2021 has divided the city into sub-zones. The Delhi Urban Arts Commission, Government of Delhi, commissioned a study as part of the Zonal Development Plan (henceforth referred to as the ZDP) in lieu of the proposed Delhi Master Plan 2021 for analyzing the existing open space framework in the Lutyen's Heritage Zone and suggesting improvements for the same. The guidelines for organizing the open spaces within the Heritage Zone are aimed at creating a visually and functionally linked system ▶▶

Samir Mathur, is Principal Landscape Architect, Integral Designs, E-90 Anand Niketan, New Delhi - 110021  
(Email: samir@integraldesigns.in)

## Central City Core Greenway



- ▶ of open spaces within the city through roadside landscape improvement, urban open space improvement of areas with social, historical and cultural significance and development of greens along the drainage channels. Local Area plans are to be formulated based upon the recommendations envisioned in the ZDP.

The open spaces within Zone D (NDCM Area) of MPD 2021 can be broadly classified into the following categories:

- Ecologically significant open spaces such as the protected ridge area,
- Public squares of historic and cultural significance such as India Gate and Central Vista are major landmark of the city with the possibility of holding multiple activities,
- Open spaces associated with protected historical monuments such as Humayun's Tomb, Jantar Mantar, Purana Qila, Safdarjung Tomb and Lodhi gardens are used as a public space,
- Public parks such as Nehru Park and Central Park is intensively used by the people for recreational activities,
- Fragmented open spaces associated with

the religious centers, neighbourhood greens, ambiguous open areas with undefined / vaguely defined uses,

- Open spaces with defined use such as Stadia and the Delhi Golf course with restricted access,
- Privately owned open area adjoining houses in the Lutyens Bungalow Zone
- Roads and roundabouts configuration in reference to changes of use such as addition of Metro corridors and stations
- Open spaces as a part of the drainage channels form a system of open spaces.

### THE PROCESS

For the preparation of the Zonal Development Plan for Open spaces and Landscape for ZDP, Zone D (NDCM area) the following sources and documents were referred to: MPD 2021, ZDP 1999, Manual for preparation of ZDP, MPD 2000, MPD 1962, site surveys and regular discussions with DUAC Members, NDCM and DDA.

Existing conditions and their classification of the Open spaces were analyzed and assessed. The open spaces as per the ZDP 1999 and MPD 2021 were mapped local area wise in

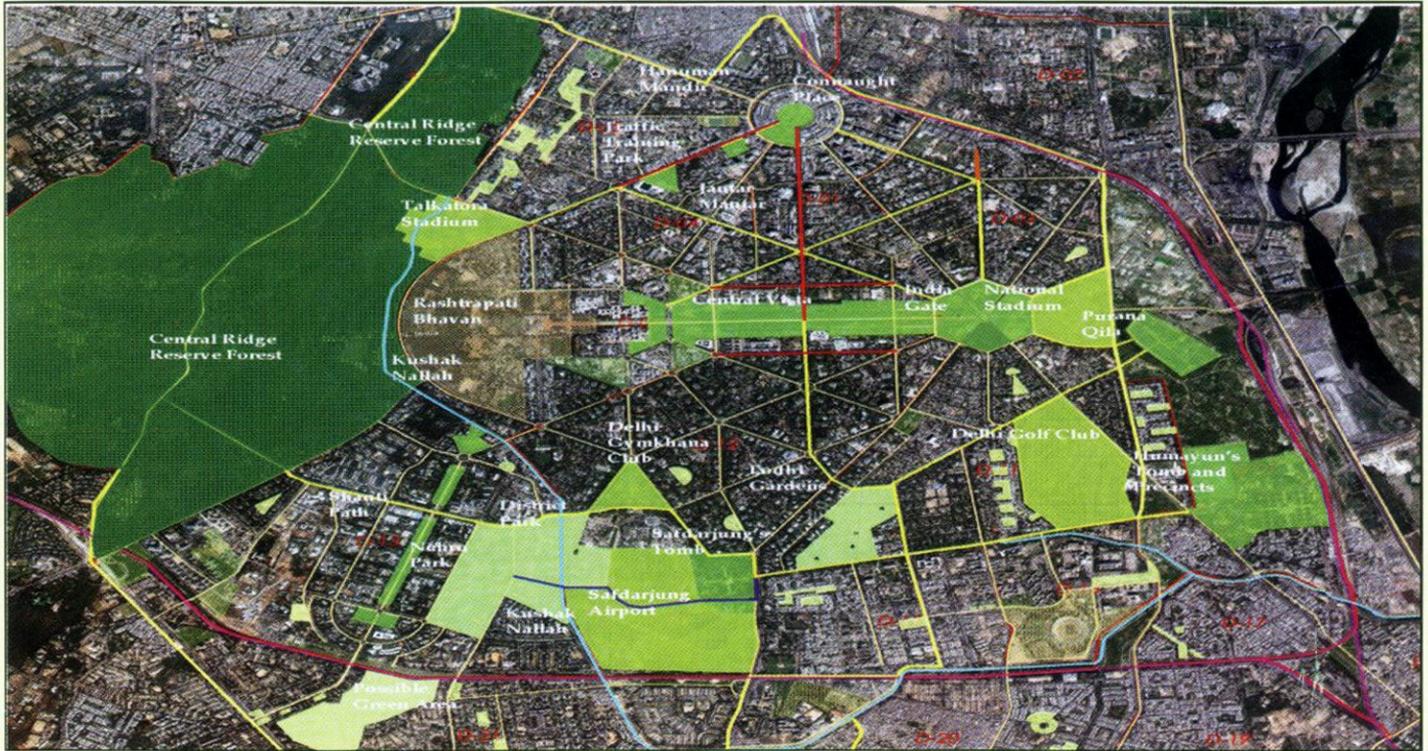
CAD and on Satellite Images. The discrepancies in the mapped open spaces and what was depicted in ZDP 1999 and MPD 2021 were highlighted. The lacunae in the existing system for the classification of open spaces were also highlighted.

The criteria for assessment of open spaces in terms of their importance within the open space network of the city were established. After understanding the types of open spaces defined in MPD 2021 and a matrix to understand the existing conditions and future attributes of these spaces was created.

A new and more intensive classification system for the open spaces and relevant criteria for their classification was proposed. The open spaces were re-designated according to the new criteria.

Other open spaces such as roads and roundabouts which can be used to strengthen existing links or create new links were identified. A strong open space and green network through the Zone was created and the potential visual, physical and functional links were identified.

# Central City Core Greenway



POTENTIAL GREENWAY NETWORK

- ▶ A vision for the Open Space Network was created and mapped. A new set of drawings were prepared for the open spaces and landscape development to be incorporated in the Zonal Development Plan 2021 for Zone D.

## THE TRANSFORMATION

The analysis revealed that there does exist a pattern in the urban matrix which allows the fragmented patches to be linked to one another and eventually to the vast river floodplains. This can be achieved by retrofitting a network of green linkages which could be multifunctional in nature, double up as ecological corridors connecting the two large patches of undisturbed natural landscape in the city—the Central Ridge Forest in the west of the Heritage zone and the vast River floodplains to the east. The vehicular roads are to be redesigned as ‘Ecological Corridors’.

These ‘Eco-Streets’, as they would be called were to respond to the

immediate context as well as to the city’s unique urban character, offering opportunities for moving through the city on foot or on cycle, thus reducing the dependency on vehicles. A recent study concluded that 34% of the population engages in” Walk-only” trips for their daily travels, needs or errands while 40% of the total Road Length of Delhi has no sidewalks. (RITES Transport Demand Forecast Study, May 2008).

The “Eco-Streets” were identified on existing roads, the traffic analysis of which proved that there could be alternative vehicular movement corridors even if the Right of Ways of these were tweaked to accommodate enough space for pedestrian movement and dedicated cycling corridors with ample planted buffers of native vegetation. The heavy infrastructure on these streets was designated to be replaced by soft infrastructure, built

into these Eco-Streets in the form of bioswales, rain gardens and curb cuts for seamless runoff connectivity.

The existing drainage channels which are in a state of disrepair have been proposed to be converted into constructed wetlands for filtering and purifying the run off before it reaches the river, allowing enough time for ground percolation too. The age of the existing vegetation was to be ascertained and measures were to be taken to intersperse them with newer plants.

The possibility of extending this greenway to the rest of the city using the right of way of the existing disused drainage channels and the river floodplains offers an exciting opportunity to connect the landscape patches within the city to form a strong ecological and cultural network weaving through the urban fabric and holding it together. ●