



# Living and Sustainability: An Environmental Critique of Design and Building Practices, Locally and Globally

## 1. Paper / Proposal Title:

Sustainable Planning Framework: Case Study New Delhi

## 2. Format:

Written paper

## 3. Author(s) Name:

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## 4. University or Company Affiliation:

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## 5. Abstract (300 words):

This paper proposes an alternative to land-use based city planning. It posits that energy and other resources need to be distributed more equitably and that a Resource Performance Index (RPI) based planning framework provides the necessary parameters

for a range of growth patterns. To achieve environmental, social and economic sustainability, planning of cities must be demand based, bottom up and within the city's ability to provide utilities.

Using RPI in terms of units/sqm/year as the primary planning tool, planners can effectively plan energy, water and waste disposal systems to reflect actual and future growth patterns. Individual residents (and localities), freed of land-use and FAR restriction, can develop a range of functions and forms suited to demand at various scales within the applicable resource allowances. Efficient, low resource consuming buildings would be able to achieve proportionately greater built area than resource intensive structures.

Space Syntax literature clearly demonstrates the correlation of the public realm network with movement patterns, and is used to identify least-energy accessibility centres at the local, intermediate and global scales. Additional resource allowance is made for these areas.

The outcome of such a framework ensures bottom up development, where each individual (and locality) determines the best use of resources on their site, with environmental benefits such as more efficient buildings, growth within limits and reduced number of journeys; social benefits such as localisation of appropriate functions and integration of private property within the public realm; and economic benefits such as increased FAR for efficient buildings.

The framework is articulated in the case of New Delhi.

## **6. Author(s) Biography (200 words each):**

Amit Sarma is an architect, urban designer and researcher based in New Delhi, India. He employs Space Syntax to relate spatial structures to observed behaviour and movement patterns. He has practiced in India and the UK. The focus of his work is optimizing social and spatial potentials at the campus and master planning level.

As an academic, his research on the relationship between urban structures and emergent patterns of urban behaviour in Indian cities has evolved into developing an alternative to traditional master planning systems and introducing the idea of resource consumption as the primary basis of city planning.

He regularly supervises architecture, housing and urban design studios; conducts specialised courses in spatial theory and urban analysis at the School of Planning and Architecture, New Delhi, and the Sushant School of Art and Architecture, Gurgaon.