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## URBAN DESIGN GUIDELINES FOR RANCHI



### Project Highlights

Developing the Urban Design Guidelines focusing on

- Creating a vibrant, safe, inclusive and sustainable city to live and work in for citizens
- Integrating city's ecological assets with the built environment thus ensuring sustainability
- Incorporating sustainable technologies and materials in building designs while leveraging natural elements
- Developing suitable strategies for climate resilience, and incentivizing the same

### Background

Ranchi is one of the 100 smart cities under the Smart City Mission and as part of the proposal, it has proposed a 656.30 acres of greenfield development. To enhance the quality of the built area and the open spaces, it is proposed that due focus will be given to urban design. Department of International Development (DFID)-UK, under the UK-India Strategic Partnership for Smart Urban Development in Indian States (SmUDI) initiated a project to prepare Ranchi Urban Design Guideline.



Ranchi,  
Jharkhand

2018

(Not to scale)

### Project Objectives

- To provide comfortable and high quality built environment, integrated with nature
- Enhance the sustainability and ecological viability of the city

### Key Stakeholders

Ranchi Smart City Corporation Limited,  
Urban Development & Housing Department,  
Government of Jharkhand

### Approach

The approach to develop the Urban Design Guidelines for Ranchi is threefold – 1) Study of the Master Plan for the Project Site, 2) Secondary Research to identify Global Practices, and 3) Stakeholder consultation. Based on an assessment, three broad design parameters have been identified; Streetscape, Building & Blocks and Open Space. The key features under these parameters are as follows:

- Streetscape design guidelines aim to create a unified and visually attractive environment that is safe, comfortable, convenient and sustainable. Establishment of discrete spaces encountered on the street - footpaths, cycle tracks, bus lanes, bus stops, carriageways and parking, - with street furniture, markings and designs
- Design of buildings and blocks aims at unique, cohesive and distinctive expression of physical forms.
- Adoption of sustainable techniques like rainwater harvesting, roof top solar, solar water heating, solar power for lighting and sustainable materials etc., for a green development.
- Designing open spaces to ensure integration with nature and creating a sustainable city.

### Financial Structure of the initiative

- Admissible incentive for Green Building and sustainability provisions (installing Solar heating, lighting & waste water recycling, city & site level greenery) to be given by the Competent Authority

- Additional FAR to be provided for buildings complying to GRIHA or similar green rating norms with a nominal fee
- Revenue sources from designed spaces for vendors along streets and other public open space, and parking space

## Achievements



### Benefits

- Streetscape Design
  - Street plantation and shaded resting space to maximize thermally comfortable street environment
  - Designing innovative multi utility and green zones along the streets to ensure intermediate and interactive break out spaces for the road users
  - Public spaces with cultural identity where people work, enjoy and congregate
- Building & Blocks Design
  - A cohesive and symmetric look across the city, through use of standard material options, colour palette and building massing
  - Building designs responsive to site conditions and do not disrupt the geology, hydrology and micro climatic conditions of the site
- Open Space Design
  - Preserving the natural waterbody and plantations within the site and developing recreational space along it

### Co-Benefits

- Active involvement of local Sohrai, Dhokhra, bamboo and wood, and other indigenous art form's artisans within Ranchi

## Success Factors

- Intensive consultation with RSCCL, experts and local artists for preparing a city specific guidelines incorporating the local character and ecology
- Strong and stable leadership guiding the development of the Guidelines
- Institutional and managerial models established within the RSCCL

### Limitations

Appropriate institutional strengthening across stakeholders shall be a key factor towards successful accomplishment of the project

## Future Prospects

The final guideline shall be made a part of all tender documents or auction documents or any other document related to any transaction or construction within the ABD