Ranchi
Smart City Proposal (Draft)

Round 3: Citizen Consultation
Overview

- Citizen Engagement Overview
- Overview of Polls
- Proposed Vision & Goals
- Area-Based Development Proposal
- Pan City Proposal
Citizen Engagement Overview

Interactive sessions conducted with:

- Ward Councillors
- MP/MLAs
- Schools & Colleges
- National Institute of Business Management (NIBM)
- CREDAI
- Bar Association
- Architect Association
- NGOs
- SAIL (R&D)
- Slums
- Garba Night
- Mobile Van / Smart Rath
- Chath Pooja
Citizen Engagement Overview

Bar Association

Meeting with NGO-Manthan

Meeting with NGOs

HOARDINGS INSTALLED ACROSS THE CITY

Meeting with CREDAl

Nukkad-Natak

SAIL (R&D)
संदेह | गांव के बंग रास्ता सिटी की निगम पर नगर निगम की टीम वेबर से हुई रूपक सिटी से पहले बनेगी स्मार्ट कॉलोनी

रोट क्वालिटी के मामलों को जानने पर भी भारी समस्या आती है। हालांकि, नगर निगम की टीम वेबर ने नगर निगम के पूर्व के लिए और जानकारी मुद्दों के हल के लिए कार्यरत रहा है। नगर निगम के पूर्व के लिए जानकारी मुद्दों के हल के लिए कार्यरत रहा है। नगर निगम के पूर्व के लिए जानकारी मुद्दों के हल के लिए कार्यरत रहा है।

जानकारी देकर लिए स्मार्ट सिटी राय रायाज

'स्मार्ट सिटीज़न' बनायें 'स्मार्ट सिटी'

'स्मार्ट सिटीज़न' बनायें 'स्मार्ट सिटी'

क्या जानना है गृहाधिकार?

यह एक सूची है कि एक स्मार्ट सिटी का आवश्यकता है और उसका असर हो सकता है। इसे समझने के लिए एक स्मार्ट सिटी का आवश्यकता है। इसे समझने के लिए एक स्मार्ट सिटी का आवश्यकता है। इसे समझने के लिए एक स्मार्ट सिटी का आवश्यकता है।

स्मार्ट सिटी के लिए हर तरफ पर होगी चर्चा: प्रशांत कुमार

"प्रेमदेव कंस" के बाद स्मार्ट सिटी पर चर्चा जा रही है। केंद्रीय समिति के बाद से ही जानकारी निम्नलिखित है:

"प्रेमदेव कंस" के बाद स्मार्ट सिटी पर चर्चा जा रही है। केंद्रीय समिति के बाद से ही जानकारी निम्नलिखित है:
Overview of Polls
Overview of Polls

Area-Based Development

MYGov Polling
Select Area Based Solution and Pan City Solution for Smart Ranchi

Talk-show-Polling

- Harmu - Retrofitting 14%
- Baraitu - Retrofitting 9%
- Morabadi - Retrofitting 14%
- HEC - Greenfield 63%

Identifying Area for development through Retrofitting development mode

- Harmu Housing Colony - Retrofitting 23%
- Baraitu Housing Colony - Retrofitting 7%
- Morabadi Housing Colony - Retrofitting 16%
- Heavy Engineering Corporation (HEC) - Greenfield 55%
## Overview of Polls

### Pan-City Proposal

#### MYGov Polling

Select a Pan City Solution for the city (an indicative list has been proposed):

- **Intelligent Traffic Management System**: 17%
- **Smart Parking**: 6%
- **Intelligent Public Transport System**: 12%
- **Integrated Solid Waste management Systems**: 12%
- **Water management system**: 8%
- **Pedestrian zone / Walkability**: 10%
- **Sewerage and Waste water management**: 12%
- **Housing for all**: 6%
- **Good higher education facilities**: 15%
- **Culture and heritage conservation**: 4%

### Talk-show-Polling

- **SWM**: 31%
- **Transport**: 27%
- **Water Supply**: 16%
- **Parking**: 11%
- **Sewerage & Drainage**: 15%
Overview of Polls

Based on the polls, following is selected for development under Smart City Mission:

- **Area Based Development:**
  - 341 acres Greenfield site at HEC

- **Pan-City proposal**
  - Proposal 1 – Intelligent Transportation System
  - Proposal 2 – Smart Solid Waste Management System
## Vision & Goals

“Ranchi to be **Hub for Education** – for both **Formal and Non-formal sector** by reinforcing its good educational institutes in preparation for welcoming **Knowledge Based Industries**”

### Goals

- **Goal 1:** To become knowledge hub/ city for the State of Jharkhand and other Eastern States of the country in 5-10 year

- **Goal 2:** Reduce travel time and incidents of traffic violations

- **Goal 3:** Ranchi to be one of the cleanest and greenest city
Area based Development Proposal
Key principles

Spatial Implications of Smart City

Urban planning/design in smart city model

Accommodate smart city concept in physical forms
Key principles

Sustainable Development

**LIVE**
People Oriented
- Sustainable Homes
- Connected to the world
- Law & order
- Practicing Rights & duties
- Safe & Secure
- Healthy & educated

**LEARN & WORK**
Knowledge & Economy Oriented
- Skill development
- Learning
- Job Creation
- Opportunities
- Boost economy

**PLAY**
Lifestyle Oriented
- Sustainable, Clean & Green Environment
- Social Infrastructure
- Recreational & interactive Platforms
Area-Based Development - Greenfield

Site location
Ward No. 42
Site Location
### Land use distribution (Proposed)

<table>
<thead>
<tr>
<th>#</th>
<th>Land-use</th>
<th>Area (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowledge Hub</td>
<td>144</td>
</tr>
<tr>
<td>2</td>
<td>Residential</td>
<td>48</td>
</tr>
<tr>
<td>3</td>
<td>Commercial</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Mixed use</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>Open &amp; Green</td>
<td>51</td>
</tr>
<tr>
<td>6</td>
<td>Circulation</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td><strong>Total Area</strong></td>
<td><strong>341</strong></td>
</tr>
</tbody>
</table>

- **Knowledge Hub**: 42% of the total area
- **Residential**: 15% of the total area
- **Commercial**: 15% of the total area
- **Mixed use**: 10% of the total area
- **Open & Green**: 14% of the total area
- **Circulation**: 4% of the total area
Land use distribution - Knowledge hub

<table>
<thead>
<tr>
<th>#</th>
<th>Land-use</th>
<th>Area (Acre)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Skill Development Park</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>IT Park/ R&amp;D center</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Health Care Training &amp; Research</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>Technical &amp; Management Institutes</td>
<td>44</td>
</tr>
<tr>
<td>5</td>
<td>School</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Area</strong></td>
<td><strong>144</strong></td>
</tr>
</tbody>
</table>

- 31% Skill Development Park
- 31% IT Park/ R&D center
- 17% Health Care Training & Research
- 17% Technical & Management Institutes
- 4% School
## Land use distribution - Residential

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Land-use</th>
<th>Area (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EWS/LIG</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>MIG</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>HIG</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Hostels</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48</td>
</tr>
</tbody>
</table>

- **EWS/LIG**: 10% of the total area
- **MIG**: 31% of the total area
- **HIG**: 17% of the total area
- **Hostels**: 42% of the total area
Land use distribution - Commercial

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Land-use</th>
<th>Area (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mall</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Commercial Offices</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Bank/ Post Office</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

- 1 Mall: 50%
- 2 commercial offices: 33%
- 3 Bank/ Post Office: 17%
## Land use distribution – Public/Semi-Public

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Land-use</th>
<th>Area (Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Convention centre</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Hospitality</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Recreational spaces</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Govt offices - Police station, SPV office, Govt office, Control room</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>
1. Creating a green Knowledge vale across the site, along the water stream and offering pleasant water front pedestrian platform.

2. The knowledge hub is spread centrally with a Major public open node positioned at the junction of the vale.

3. The Mixed used retail + forms a vibrant arrival edge from the Dhurwa access road.

4. The residential zones are located mostly in the North separated from the hub yet within walkable distance.

5. A Pure commercial located nearby directly accessible from the Hub.
Proposed Land use Plan

0.5 0 0.5 1.0 1.5km

Technical and Management Institutes
Medical/Health Research
Skill Development Park
IT Park/R&D centres
Convention centre
Govt. offices
Hospitality and Recreation

EWS MIG HIG Hostels

Schools
Medical/Health Research
Technical and Management Institutes
Hostels
Commercial

213km to Parsora
221km to Parsora
Proposed Road
Smart features proposed

- **Urban Mobility**
  - Energy Efficient Public transport System
  - Public Bike sharing
  - Intelligent Transportation system
  - Intelligent Parking System
  - Common mobility card
  - Smart IPT Stands and App
  - E-Rickshaw

- **Utility Infrastructure**
  - Assured 24X7 Electricity Supply with 10% from solar
    - 2 way metering (Smart meters / net meters)
    - Underground cabling

- **Water supply & Sanitation**
  - Waste water recycling, Rain Water Harvesting
  - Efficient Water Management
  - Smart meters with sensors
  - Leakage identification and Preventive maintenance
  - Automated Online Residual Chlorine Monitoring System
  - Waste water management
  - Recycling and reduction of C&D waste
Smart features proposed

- **IT connectivity:**
  - Wi-Fi hotspots (to be extended to Smart city)
  - M-Governance
- **Safety & Security:**
  - Video Crime monitoring
  - Incident alerts app
  - Helpline and SOS Mobile number
- **Drainage**
  - Buffer reservoir for Storm water resilience

All the systems will be inter-connected through one of the four modes of Internet of Things (IOT) Technology: SCADA, RFID, WSAN and M2M, which would lead to effective and efficient governance and public service delivery.
PAN City Solutions proposed

- Intelligent Transportation System (ITS)

- Smart Solid Waste Management System – ICT Tools (in the already existing SWM System)
Pan City Solution – Proposal I

Intelligent Transportation System (ITS):

• Traffic control and management center
• Disaster recovery center
• Incident detection system
• Adaptive signal control of at-grade intersections
• CCTV-camera system
• Traffic information system with variable message signs
• Speed and redlight violation cameras
• Parking management system

• To be developed in 7 Major Corridors of Ranchi
Pan City Solution – Proposal I

Proposed corridors

DPR Roads
1. Raj Bhawan to Birsa Chowk
2. Raj Bhawan to Kantatoli
3. Raj Bhawan to Hinoo Chowk
4. Birsa Munda Airport to Birsa Chowk
5. Raj Bhawan to Booti More

Additional Roads
1. Booti More to Sujata Chowk
2. Kantatoli to Namkum
Pan City Solution – Proposal I

Proposed ITS Facilities for Traffic Management

**LEGEND**
- Vehicle Actuated Signals with CCTV Cameras
- CCTV Cameras for Surveillance
- Variable Messaging Signs for Traffic Management
- Variable Messaging Signs for Parking Areas (On/Off Street)
- OCC at SP Traffic Office

**Description of Cameras**
- Red Light Violation Camera (ANPR)
- Detection of Vehicle (ATCS) for Vehicle Actuated Signal
- PTZ Camera for Surveillance
- VIDS Camera
- Speed Violation Camera (ANPR)
Pan City Solution – Proposal II

Smart Solid Waste Management – ICT Tools (in the already proposed/upcoming SWM System)

1. All vehicles (e-Rickshaw) to be GPS tracked
2. RFID to be provided in all vehicles
3. IVRS based complaint tracking photo tagging option
4. Vehicle management system (O&M system)
5. Digital weigh bridge
6. Biometric (thumb impression and face recognition) attendance system
7. Control and Command Centre
Thank you

Please share your opinion on Smart City Proposal:
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