3.1 REGIONAL & CITY PROFILE

Regional Profile

Advantage Jharkhand

Investment Climate
Strong Policy Framework
Support Infrastructure
Natural Resource Base
Existing Industrial Base
Skilled Workforce
Established R&D

Mineral deposit: Iron ore, dolomite, kyanite, lime stone, manganese, uranium, copper, quartzite, kaolin, fire clay
Major industry: Iron & steel, auto components, cement, IT-ITES, horticulture, food processing, silk and textile

City Profile

Industrial Infrastructure in Ranchi

Ranchi Industrial Area Development Authority (RIADA), is the nodal Industrial Development Authority in the State

1471 acres
4 Industrial areas
517 Working units

>62,000 Crore
MOUs signed
40% Mineral resources of country
30 Types of Minerals

Area: Singhbhum IA
Mineral deposit: Iron ore, dolomite, kyanite, lime stone, manganese, uranium, copper, quartzite, kaolin, fire clay
Major industry: Iron & steel, auto components, cement, IT-ITES, horticulture, food processing, silk and textile

Area: Ghatsila IA
Mineral Deposit: Copper
Major Industry: Copper and Forest based Industries

Area: Dhanbad - Bokaro IA
Mineral deposit: Coal, fire clay, silver
Major industry: Coal and steel, refractories, coal based power plants

Area: Deoghar-Jasidih and Santhal Parigana IA
Mineral deposit: Copper, fire clay, silver
Major industry: Glass, steel, aromatic medicinal plant, coal based power plant, silk textile industries, food processing

Area: Ranchi IA
Major industry: Medium and large scale industries, ITITES, food processing

Area: Lohardaga IA
Mineral deposit: Bauxite
Major industry: Aluminium industries, power plants

Area: Koderma-Hazaribagh IA
Mineral deposit: Mica, stone chips, coal, fire clay, lime stone
Major industry: Mica based industries, power plant, glass, alloy steels, cement, refractory

Area: Koderma-Hazaribagh IA
Mineral deposit: Copper
Major industry: Copper and Forest based Industries
3.2 CITY Overview

Annexure 3: Ranchi Smart City Proposal

**Population**
- 1980: 4.9 Lakh
- 1990: 5.9 Lakh
- 2010: 10.7 Lakh

- **Density**
  - 1980: 28 PPH
  - 1990: 34 PPH
  - 2010: 61 PPH

- **Increase in density** 80%
- **City Growth rate** 120%

**Energy**
- **Electricity** is available for 97% of the Day
- **Streetlights** are converted to LED
- **4000 LED lights** distributed in the city

**Transport**
- **Modal Share**
  - 36% Walk trips
  - 29% IPT
  - 9% Cycle

- **Road Network**
  - 683.7 Km
  - Forms 9.9% of Land area

- **Avg. Traffic Speed**
  - 23.4 Km/hr

- **Waste Collection**
  - 60% Door-to-door

**Housing**
- **77.43%** Pucca houses
- **7.72%** population lives in slums

**Water**
- **10% HHS have Water Meters**
- **48% HHS have Water Supply connections**
- **10% HHs have Rain Water harvesting structure**
- **90% Water Quality meets Benchmark standards**

**Safety/Security**
- **125 Pink autos for women safety**
- **4 Dedicated Police Station to deal Cyber crime**
- **Mobile Apps developed**: Meinbhi Police

**Source**: Ranchi Master Plan 2037; 2. CMP – December 2015
3.3 CITIZEN ENGAGEMENT

- Inform citizens about Smart City Mission,
- Conduct SWOT analysis and prepare a vision statement
- Understand city level issues for Pan city initiative
- Identify the area for Area Based development

- Share first draft of the proposal with the citizens and invite their suggestions / feedback
- Share revised / final draft of the proposal with the citizens
- Invite suggestions for proposal improvement in fast track round

**Process...**

**Round 1**
- Inform citizens about Smart City Mission,
- Conduct SWOT analysis and prepare a vision statement
- Understand city level issues for Pan city initiative
- Identify the area for Area Based development

**Round 2**
- Share first draft of the proposal with the citizens and invite their suggestions / feedback

**Round 3**
- Share revised / final draft of the proposal with the citizens
- Invite suggestions for proposal improvement in fast track round

**Round 4**
- Inform citizens about Smart City Mission,
- Conduct SWOT analysis and prepare a vision statement
- Understand city level issues for Pan city initiative
- Identify the area for Area Based development

**Extent...**

- Schools
- Common citizens
- NGOs
- Association Architects / Builders / Traders / Bars
- PSUs
- Coaching Institutes
- Colleges
- Urban Poor / Slums
- Industries

**Modes...**

- Talk Shows
  - >80,000 Structured questionnaire
  - ~1000 Email responses
  - >15 events at prominent locations

- 2420 online / offline ESSAY Competition entries
- ~25,500 Facebook likes
- >500 times Radio jingles played

- >55,000 ward level polling
- >1.5 lakhs pamphlets distributed
- >50 newspaper articles
- >4.5 Lakh Total citizen outreach
- >1000 Email responses
- >80,000 online / offline ESSAY Competition entries
- >40 Talk Shows

**Polling results - Area Based Development**

MyGov polling results

- Nukkad Natak at 110 Locations
- >15 events at prominent locations

- Information dispensation through Smart rath for >10 days
- >2 lakh SMS & WhatsApp Messages

**Polling results - Pan City Solution**

MyGov polling results

- >80,000 online / offline ESSAY Competition entries
- >55,000 ward level polling
- >1.5 lakhs pamphlets distributed
- >40 Talk Shows

- Talk shows polling results
- >15 events at prominent locations
- >2 lakh SMS & WhatsApp Messages

- >4.5 Lakh Total citizen outreach
- Nukkad Natak at 110 Locations


### 3.4 VISION & GOALS

**Vision:**
Ranchi aspires to be a Learning & Knowledge hub of Eastern India that provides Sustainable & vibrant environment to its citizens, by addressing their socio economic needs by leveraging its knowledge institution ecosystem.

**Thrust Area (TA)**

1. **Provision of adequate physical and social infrastructure**
   - Strengthen & Improve Core infrastructure
   - Enhance Mobility
   - Preserve & Develop natural resources & open spaces
   - Enhance Safety & Security
   - Provision of supporting social infrastructure

2. **Ensure Socio Economic Development of the city**
   - Focus on Knowledge based Economy

3. **Fiscal Sustainability**
   - Revenue Optimization through innovative mechanism
   - Legal changes to improve tax collection

4. **Adoption of SMART PRINCIPLES for CITY PLANNING, DEVELOPMENT & MANAGEMENT**
   - Leverage IT for Smart Governance & to connect with citizens

**Strategic Direction**

10

1. **Strengthen & Improve Core infrastructure**
2. **Enhance Mobility**
3. **Preserve & Develop natural resources & open spaces**
4. **Enhance Safety & Security**
5. **Provision of supporting social infrastructure**

**Goals**

1. Meet 100% MOUD’s SLBs defined for citizen services
2. Dedicated space for NMT & 30% Modal share for Public Transport
3. Open Spaces within 10 min walking distance
4. 24X7 safe city
5. Increased focus on affordable housing – EWS and LIG categories
6. Adequate health facilities with easy access from residential areas and job centres
7. Create >15,000 seats for higher education facility
8. Create >2 lakh jobs in the city
9. Enhance tax net and revenue collection through Outsourcing to private vendor and use of ICT
10. 100% inclusion of properties in the tax net and increase in revenue
11. Adoption of Mix Land use & TOD concepts in all future developments
12. Availability of 100% citizen services through a common online & offline platform
13. Integrate ICT in city management and planning operations

---

**CITY SWOT**

- Investment climate
- Socio-economic ecosystem
- Geographic positioning
- Physical infrastructure
- Inherent strength
- Social Infra-structure

**CITIZEN ENGAGEMENT**

- Meetings with >20 depts.
- Students
- Industries
- Parents
- Elected rep.
- PSUs
- Slums
- Mobility for All

**CITY PROFILE**

- CMP
- CDP
- Ranchi Master Plan 2037
- SLIP documents
- Mobility for All

---
3.6 AREA BASED DEVELOPMENT – Concept

**Conceptual Development**

- Proposed Masterplan road
- Proposed Monorail
- Hatia railway Stn.
- JUTCOL TOD
- Dysfunctional railway line
- Existing High Embankments for Creating terraced Garden
- Low Lying Area to create Rain water storage lake
- Retaining site features:
  1. River Nati & its ecosystem
  2. Rocky terrain at lake
  3. Dysfunctional Railway Embankments
  4. Low lying area to create Rain water storage lake

**Site Appreciation**

Creating the ‘Knowledge Vale’ of Ranchi
- An ecological green necklace that connects man and nature with the built environment.
- 4km of recreational belt with a variety of activities for social interaction and learning.

**Conceptual Design Nodes**

1. Arrival node
2. Eco park node
3. Public Recreation Node
4. Community Node
5. Monorail TOD Node
6. Transit Hub Node

**TOD Concept Adaptation**

- Establishing TOD axis- Trunk Road.
- High density mix use zone along the Trunk road
- Medium Density Housing & institutional zone within 200 m from TOD Axis.
- Low Density Institutional & public facility zone within Max. 400 m walking distance form Trunk road.

**Overall Land Use Distribution**

- Residential: 13%
- Mix use: 10%
- Institutional: 17%
- Public Commercial: 8%
- Green & Open space: 20%
- Circulation: 5%
- Residential: 20%
- Commercial: 30%
- Public Office & facilities: 13%
- Institutional: 10%

**Eco Park**

- Multi-Modal transit Hub
- Proposed monorail TOD
- Low lying area to be used for rain water harvesting
- rocky terrain & existing lake
- Rejuvenating river Nati
- Existing High Embankments for creating terraced Garden
- Creating the ‘Knowledge Vale’ of Ranchi
- An ecological green necklace that connects man and nature with the built environment.
- 4km of recreational belt with a variety of activities for social interaction and learning.

**Proposed Land Use Plan**

- Residential
- Hostel
- Commercial
- Public Office & facilities
- Institutional

**Concept Diagram**

- Live
- Work
- Learn
- Play
- Conceptual Design Nodes
- Overall Land Use Distribution
3.7 AREA BASED DEVELOPMENT – TOD Concept

**Transit Oriented Development**

**Connect**
- Complete & safe Public walks, NMT corridors.
- Vibrant & Active walking paths.
- Comfortable & shaded walkways.
- Short route options for Cyclist & pedestrians
- Maximum interval of pedestrian intersection at 110 m.

**Transit**
- E-rikshaws stands, Bus stops located on trunk road at maximum 400 m from any place on site.
- Max. 15 mins walk distance to Monorail Station

**Mix & Density**
- Mix of Functions like, offices, Institutions, administration, residential, Shopping & entertainment coexists.
- High & medium density spread along the transit axis

**Compact**
- Most plots accessed from more than 2 sides.
- Close proximity to Bus interchange, Monorail station and Railway station.
- Bike Sharing & parking facility through site.

**Multi Modal Transit Hub**
- One Integrated Infrastructure facility connecting all modes of transport:
  - Railways
  - Monorail
  - Inter & Intra City bus service
  - E-Rikshaws, Autos, E-Cabs
  - Bike Sharing

**Neighbourhood Planning**
- Interspaced pocket planned for all residents - parks & fields between blocks well-lit.
- Short distance to nearest road with good access.

- 6.7 lakh sqm Housing for all
- 5.3 lakh sqm of Institutional Space
- 4.9 lakh sqm Commercial Space
- 1.4 lakh sqm Transit hub
- 1.7 lakh sqm Government offices
3.8 AREA BASED DEVELOPMENT - Mobility

STREET DESIGN

- 30 M ROW PRIMARY ROAD
- 24 M ROW SECONDARY ROAD
- 18 M ROW TERTIARY ROAD

Pedestrian Footpath - 13.7 kms
Cycle/NMT Track - 13.7 kms

Cross section for minor interior roads in ABD
Small street with shared space
Intermediate street with footpath

Ensuring Pedestrians and cyclist on every streets

Safe walking and cycling environment
Proposed streets will have wide, continuous footpaths compliant with IRC 103:2012.

PUBLIC TRANSPORTATION

CITY CONNECT

- Trip Length – 8 to 12 kms
- Frequency - 10 mins
- Bus Types - Mix of Mini and midi buses

INTRA CITY SHUTTLE

- Trip Length – 7.5 kms
- Frequency - 3 to 4 mins
- Bus Types - Mini buses

BUS STOPS

A. Location: Bus stop every 400m implies that commuters don’t have to walk more than 5 min to access a bus stop

GREENWAYS

4 Kms of greenway planned along the water bodies and the exclusive pedestrian roads

Infographics source - ITDP, unless mentioned
3.9 AREA BASED DEVELOPMENT – Site Plan

LEGEND:
1. Convention centre & Urban Tower
2. 5 Star Hotel
3. Mixed use development
4. Government offices
5. Institutional:
   a. Skill development Park
   b. Other Institutes College
   c. JUPMI
   d. Senior Secondary School
   e. Student Resource centre
6. Universities:
   a. Medical college
   b. Technical University
7. Housing:
   a. MIG
   b. HIG
   c. EWS/LIG
   d. Hostels
8. Public facilities
   a. Neighbourhood centre & Smart city Haat
   b. Community centre
   c. Sports centre
9. Multi Modal Transport Hub
10. Mall & Commercial centre
11. Utilities- STP, ESR, Sub-station.
3.10 AREA BASED DEVELOPMENT – Zoning

**Mixed Use Integrated Development**
High Density-commercial Podiums with office or residential towers, planned along the trunk road to ensure accessibility, mobility & Vibrant Work - Live - Play environment for maximum population.

**Integrated Convention Centre & Civic Hub**
A Hub of public facilities & Civic Offices together with Private commercial & recreational open space.

**Eco Park & River Park**
Integrated Network of Green landscape & water features running across the site with Leisure walks, NMT paths, recreational decks, Water activity zones, Children’s Park etc.

**Integrated Mall & Commercial Centre**
One stop destination for shopping, entertainments, Cinema, restaurants & cafes for Public Recreation and Fun.

**Housing For All**
Providing a Mix of housing for EWS, LIGs, MIGs & HIGs, all located within 250-400 m walking distance from TOD axis, public facilities, Public transport Hub, institutional & working places.

**Lake Harvest**
A water retention features, built using the existing Low lying area & solid embankment (13 m high), use to collect & manage all the storm water at site.

**ESR**
Central Water tank over 13 m high embankment, Save Additional pumping cost.

**Multi Modal Transport hub**
Integrated Infrastructure Facility - Connecting the Hatia station to smart city (Sky bridge), E-Rikshaws & Auto stand, E-Bus terminal, coexisting with a Mixed used Commercial Development.

**Knowledge Hub**
Centre of Knowledge, Training, Formal & informal education, Skill development, Technology & R&D.
3.11 AREA BASED DEVELOPMENT – Smart Components

SMART SEWAGE COLLECTION & TREATMENT
- Sewage trunk line along the trunk road (utilizing natural slope) towards STP
- STP strategically located at natural lowest point on site.
- Centralized STP to treat sewage and supply treated grey water for reuse.

SMART INFRASTRUCTURE
- Integrated service tunnel integrated with the trunk road.
- Tunnel to accommodate water supply, sewage lines and Power & network cables.

SMART STORM WATER MANAGEMENT
- Special on-site retention & detention features like pits & drains.
- Directs all water from the hard surfaces, planter boxes, green roofs to the nearest River catchment area.
- River Nati following its natural course & slope will take the water to Lake Harvest.
- Lake Harvest stores, treats and resupply water to buildings.

RENEWABLE ENERGY AND ENERGY EFFICIENCY
- Multiple energy points feed power into smart grid, that keeps a tab on energy use of every development/occupant. Energy consumption of entire city is optimized through real time analysis and control. And shred with the citizens using VMS.
- High efficiency solar energy-Solar panel – dedicated land reserved on railways embankments retained.
- Solar panels on roofs of knowledge hub balding can be used to feed the energy demand of corridors and lift lobbies.
- LED Solar Street Lighting
- Elevator energy regenerative systems.

SMART SOLID WASTE DISPOSAL
- Smart Community Toilets ( ) at regular intervals in the River Park.
- Smart Sorting-Separate chutes for different type of waste
- De-centralized & compact waste management plant with in each developmental plot- where most biodegradable waste is treated at source and converted to bio-fuel.
- Minimum waste Strategy-only 30% sent out of site for disposal.

SITE SMART COMPONENTS
3.12 AREA BASED DEVELOPMENT – Smart Components

SMART MOBILITY & INTELLIGENT TRAFFIC MANAGEMENT

Multiple modes of transport are optimized through analysis of traffic patterns. Choke points are avoided or eased out through automatic response from control centre.

- Intelligent parking systems
- Automatic road pricing system for private cars entering the site.
- Integrated network of battery operated public vehicles
- Integrated multi-modal public transport services – Monorail → E-Buses, E-taxis/auto, E-rikshaws
- Enhancing first & last mile connectivity
- Common mobility card & Centralized Control centre for all traffic
- Smart IPT stands & applications
- Integration of CCTV and GIS tracking for record and security.
- Public bike and car pool system

SMART POLICING & SECURITY

- Smart Police Station that works closely with Smart city marshals & city Police.
- Centralized security control centre for police, Marshals and other security departments.
- Quick redressal to citizen’s problems and concerns within the Smart city.
- Pan development Video Monitoring
- Helpline & SOS numbers
- Crime alert Apps

SMART BUILDING FEATURES

- Cross NV
- High Efficient ACMV
- Motion Sensor
- Regenerative Lift

- Water Harvesting
- Orientation Optimization
- Intelligent Facade
- Renewable Energy

SMART URBAN DEVELOPMENT MANAGEMENT TEAM

- Smart Administration & Command centre (SAAC) – 1 stop destination for admin related decisions, command works located within the Urban Tower.
- Urban Tower – civic building that houses all SPVs and civic offices.
- Citizen Connect Gallery – center for gaining information regarding city maps, bylaws, real estate details, with Interactive smart city model and plans on display - open for public access.

SMART CONNECTIVITY

- Underground fiber optic cabling for internet and telecommunication incorporated with common service Tunnel
- LAN connectivity capabilities to all buildings.
- WiFi hotspots at all important public spaces & buildings.
- Free WiFi for students & public in student resource center.

SMART HEALTHCARE & DISASTER MANAGEMENT

- Smart health huts for trauma & health check-ups located within a maximum 500 m distance from all locations on site.
- Quick response Smart-paramedic team that is connected to each citizen using Smart healthcare Apps - electronic patient records, Google mapping & tracking, email connectivity.
- DMT - Smart weather forecast combined with water flow management to predict Flash floods, and pre strategies remedial strategies.
- Fire in building triggers auto alarms in control center and coordinated with traffic management to make way for fire services.
3.13 AREA BASED DEVELOPMENT – Green Area

1. RIVER PARK

- The most powerful element of Site - a continuous green & blue network flowing across the site, connecting all zones and functions.
- NMT tracks
- Leisure trails
- Jungle trek
- Camping Site
- Jogging tracks
- Bridges & water Decks
- Playing fields & sand pits
- Open

2. ECO PARK

- Lotus garden
- Cleansing Biotope
- Water activity centre
- Kayaking
- Lake deck restaurants & Cafe

The cleansing biotope - an artificially wetland that offers effective water treatment and helps maintain water quality naturally without using chemicals using special wetlands plants

3. LAKE HARVEST

- Water retention feature created at the already existing low lying area of the site, where all the storm water is natural directed.
- Constructed using Existing Railway embankments, which are now dysfunctional and hence – is an Adaptive reuse of an existing infrastructure.
- The lake acts as a flood control measure, prevents run offs, and the collected water can be reused at site for various purpose.

4. COMMUNITY PARKS

- Terraced gardens & lawns
- Community parks with BBQ pits & Gazebo
- Children’s Play garden
- Open Park gyms

5. SPORTS CENTER

- Integrated indoor & outdoor sports facility
- Open for public & Students

SITE GREEN NETWORK PLAN

Green area/person
760,000 sqm/50,000 population
= 15 sqm/person
3.14 PAN CITY SOLUTION - Physical Infrastructure

VISION - Towards Sustainable Transportation
- Footpaths and safe street crossings
- Cycling facilities
- Public transportation
- Intermediate Para transport
- Travel Demand Management

The above graphics highlights the current scenario of Ranchi with respect to traffic and transport. It is evident that Ranchi has high pedestrian and cyclist modal share, which makes it imperative to upgrade these infrastructure. Based on the analysis infrastructure proposal are made for footpath, cycle track, bus routes.

FOOTPATH
- 160 kms of continuous and wide Footpath proposed pan city compliant with IRC 103:2012

CYCLE TRACK
- 100 kms of Cycle track proposed all across the city with adequate traffic calming measures

BUS ROUTE
- Dense network of Public Transport connecting every nook and corner with a fleet size of 375 buses

GREENWAYS
- Proposed Greenways along major water bodies to creating NMT corridors and public place at the same time

PUBLIC BICYCLE SHARING
- City to adopt PBS scheme with an coverage area of 5 sqkm and 1000 cycles
  - Cycle stands to be at a distance of 300m with a capacity of 12, 24, 36 docks

JUNCTION IMPROVEMENTS
- Important intersections in the city need to be redesigned to retain either a traffic signal or a rotary/traffic island.
  - Albert Ekka Chowk
  - Birsa Chowk
  - Dangra Toli
  - Chowk, Kadru More
  - Kantatoli Chowk
  - Kutchery Chowk
  - Ratu Road junction
  - Sujata Chowk

ACHIEVEMENT
- Support non-motorised transport (NMT) - Increase the mode share of all trips by cycling and walking from 44% (2014) to 50% (2031)
- Improve safety - Zero fatalities per year from traffic crashes or public transport accidents
- Improve formal public transport - Increase the mode share of formal public transport from 2% (2014) to 35% (2031)
- Public transport accessibility - 75% of residents within a 5 min walk of formal public Transport
- Keep Ranchi air healthy - Zero nonattainment days for PM and NOx emissions
- Control personal motor vehicle trips - Increase of no more than 10% over present levels.
3.15 PAN CITY SOLUTION – ICT Infrastructure

Components:
- Intelligent Public Transport System
- Corridor Management system
- Parking Management System
- IPT Integration
- Fare Management System
- Ranchi Integrated Traffic and Transport Management System (RITTS)

INTELLIGENT PUBLIC TRANSPORT SYSTEM
- Real-time tracking of 375 buses with PIS
- 200 State of the Art BQS with PIS
- Surveillance through CCTV cameras at all buses and BQS

CORRIDOR MANAGEMENT SYSTEM
ITS capture traffic information and send to Control room

1. Command & Control room
   - Data is analyzed and Traffic signals are time managed & synchronized

2. Traffic Signal controller
   - Information is send to signal controller

3. Roadside Equipment Unit

4. Synchronized traffic movement

Area Traffic Control System
- 40

PTZ Cameras
- 40

Red Light Violation Camera
- 40

Vehicle Incident Detection System
- 02

Speed Violation Camera
- 20

VMS
- 08

RANCHI INTEGRATED TRAFFIC AND TRANSPORT MANAGEMENT SYSTEM (RITTS)

FARE MANAGEMENT SYSTEM
- Development of common mobility card integrating payment through single card for all the modes of Public transport

"APNI RANCHI": All-in-One Mobile Application
- City Information services
- Features like Passenger Information System, online municipal taxes payment system, all municipal services, social networking, grievance redressal
- Increase citizen engagement C-C, C-G, G-G platform
- Aiming to bring on-board 80% citizens of Ranchi on "APNI RANCHI" application

PARKING MANAGEMENT
- Customer Oriented Parking management system
- Disseminating information about parking through "APNI RANCHI" mobile app
- Payment through mobile based gateway

Video surveillance, Big screen, Electronic map

Wireless communications media

PDA

Patrol vehicle

GPS terminal

Console

Command and dispatch center

Offices

If vehicle user has not paid the parking fees, clamp or tow the vehicle.
Verify status of vehicle in the central database.
Employ enforcement officers to scan licence plate numbers using handheld devices.
Make payment online or by SMS to get your vehicle released.

“APNI RANCHI” mobile application
- Increase citizen engagement C-C, C-G, G-G platform
- Aiming to bring on-board 80% citizens of Ranchi on “APNI RANCHI” application

INTEGRATED TRAFFIC AND TRANSPORT INFRASTRUCTURE

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

Development of common mobility card integrating payment through single card for all the modes of Public transport

“APNI RANCHI”: All-in-One Mobile Application
- City Information services
- Features like Passenger Information System, online municipal taxes payment system, all municipal services, social networking, grievance redressal
- Increase citizen engagement C-C, C-G, G-G platform
- Aiming to bring on-board 80% citizens of Ranchi on “APNI RANCHI” application
3.16 IMPLEMENTATION PLAN

[Diagram showing implementation plan with tasks and timelines]
### 3.17 SPV STRUCTURE

#### SPV Organogram

**SPV BOARD of Directors**
- Chairman (Principal Secretary - Urban Development)
- Mayor of City/Parasatal
- Municipal Commissioner, RMC (Managing Director SPV)
- Deputy Commissioner, Ranchi
- Managing Director, JVVNL
- Director representation from GOI

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**CEO**
- Transportation
- Water & Sanitation
- Power
- City Operation and Security
- Technology
- Building & Parks
- Estate

---

**Domain**: Transportation
- HOD
  - Domain consultant
  - Domain contractor

**Domain**: Water & Sanitation
- HOD
  - Domain consultant
  - Domain contractor

**Domain**: Power
- HOD
  - Domain consultant
  - Domain contractor

**Domain**: City Operation and Security
- HOD
  - Domain consultant
  - Domain contractor

**Domain**: Technology
- HOD
  - Domain consultant
  - Domain contractor

**Domain**: Building & Parks
- HOD
  - Domain consultant
  - Domain contractor

**Domain**: Estate
- HOD
  - Domain consultant
  - Domain contractor

---

**Stakeholder Roles: Organogram showing relationships**

- **SPV Board Members**: Municipal Commissioner, Chief Executive of Urban Development Authority/Parasatal
- **Concessionaire/Developers/Vendors**: MPs, MLAs, MLCs, Mayors, Councilors, Other elected representatives
- **Consultants**: Comments, Views, Suggestions
- **Handholding Organization**: Appraisal
- **Collectors, Divisional Commissioner**: Comments, Views, Suggestions
- **Community Rep./Associations**: Appraisal

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**SPV Flowchart**

- **Overall Guidance**
  - **Urban Development Department**, Govt. of Jharkhand
  - JBVNL

- **Project development and procurement of contractors/developers**
  - Transaction Advisory Consultants

- **Supply and construction works**
  - Concessionaires/Contractors/Developers/Vendors

- **Overall supervision of contracts for the component works**
  - PMC
  - RMC

- **Supports in implementing convergence with various schemes of GOI and supports for human resources**
  - JUIDCO

- **Supports in undertaking the electrical works - transmission & distribution lines and smart metering**
  - Drinking Water & Sanitation Department

- **Advisory for roads, parks, building construction works**
  - Charity, etc.
### 3.18 FINANCIAL PLAN

#### AREA BASED DEVELOPMENT PROPOSALS

<table>
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<tr>
<th>Sr. No.</th>
<th>Project/Component</th>
<th>Cost in INR Cr</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>Capital Cost Phasing</th>
<th>Convergence- GoI Scheme</th>
<th>Smart City</th>
<th>JSDP World Bank Fund</th>
<th>PPP</th>
<th>O&amp;M Cost per Annum</th>
<th>Total O&amp;M Cost for 10 years</th>
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<td></td>
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</tr>
<tr>
<td>2</td>
<td>Transport &amp; Circulation (Roads) with Pedestrian facility duct for utilities including gas line, power line,Optical fibre, provision for sewerage &amp; drainage</td>
<td>209.83</td>
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#### PAN CITY PROPOSALS

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<th>Smart City</th>
<th>JSDP World Bank Fund</th>
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**Grand Total (A+B) in Rs. Crore**:

| 1,489.27 | 57.34 | 787.51 | 639.51 | - | - | 121.65 | 987.72 | 315.00 | 64.90 | 58.87 | 588.68 |

#### C Private Investments through Land Monetization

6645 17 1671 2679 2278
## 3.18 FINANCIAL PLAN

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### 3.18 FINANCIAL PLAN

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3.19 FINANCIAL PLAN

Sources of Fund - Ranchi SCP
- Commercial Loan 20%
- Smart City Mission 53%
- MNRS/Solar City 1%
- PMAY 1%
- SBM 0%
- AMRUT 4%
- PPP 4%
- Debt - World Bank - JSVDP 17%

P&L Statement – Ranchi SCP (Figures in INR Crore)

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**Operational Revenue**
- Land Monetisation: -224.92
- Convention Center: -224.92
- Parking Fees: -10.51
- Urban Mobility: -0.74
- Advertisement: -1.44
- Rental Income: -3.84
- Park Ticketing: 0.26

**Total revenue**: -226.258

**Total operational expenditure calculations**

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**Profit & Loss Statement**

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## 3.20 FINANCIAL PLAN

### Balance Sheet - Ranchi SCP

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### Project IRR - Ranchi SCP

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**Project IRR** 11%